

**5/5/14 DRAFT**



Michigan Department of Environmental Quality  
Air Quality Division

EFFECTIVE DATE:

ISSUED TO

United States Steel Great Lakes Works

State Registration Number (SRN): A7809

LOCATED AT

No.1 Quality Drive, Ecorse, Michigan 48229

### **RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-A7809-20XX

Expiration Date:

Administratively Complete ROP Renewal Application Due Between and

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

### **SOURCE-WIDE PERMIT TO INSTALL**

Permit Number: MI-PTI-A7809-20XX

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environmental Quality

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Teresa Seidel, Field Operations Supervisor

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## AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environmental Quality (MDEQ) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined, subsumed and/or are state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

**SECTION 1**

ISSUED TO

UNITED STATES STEEL CORPORATION  
GREAT LAKES WORKS  
IRON AND STEEL MANUFACTURING OPERATIONS

State Registration Number (SRN): A7809

LOCATED AT

1 QUALITY DRIVE  
ECORSE, MICHIGAN 48229

## A-S1. GENERAL CONDITIONS

### Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. 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 conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed

by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### Emission Limits

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

## Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
- The date, location, time, and method of sampling or measurements.
  - The dates the analyses of the samples were performed.
  - The company or entity that performed the analyses of the samples.
  - The analytical techniques or methods used.
  - The results of the analyses.
  - The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

## Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
  - a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
  - a. The applicable requirements are included and are specifically identified in the ROP.
  - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**

- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
  - d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**

- d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## **Renewals**

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## **Stratospheric Ozone Protection**

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaiming, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## **Risk Management Plan**

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## **Emission Trading**

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of

Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216.  
**(R 336.1213(12))**

### **Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.<sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.<sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.<sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B-S1. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

### C-S1. EMISSION UNIT CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

#### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBHZI1-1-BOILER-S1	No. 1 Boiler at Zug Island No.1 Boiler House	1/1/1937	FGBHZI-1&2BLRHSE-S1
EUBHZI1-2-BOILER-S1	No. 2 Boiler at Zug Island No. 1 Boiler House	1/1/1937	FGBHZI-1&2BLRHSE-S1
EUBHZI1-3-BOILER-S1	No. 3 Boiler at Zug Island No. 1 Boiler House	1/1/1937	FGBHZI-1&2BLRHSE-S1
EUBHZI1-4-BOILER-S1	No. 4 Boiler at Zug Island No. 1 Boiler House	1/1/1937	FGBHZI-1&2BLRHSE-S1
EUBHZI1-5-BOILER-S1	No. 5 Boiler at Zug Island No. 1 Boiler House	1/1/1937	FGBHZI-1&2BLRHSE-S1
EUBHZI2-1-BOILER-S1	No. 1 Boiler at Zug Island No. 2 Boiler House	1/1/1938	FGBHZI-1&2BLRHSE-S1
EUBHZI2-2-BOILER-S1	No. 2 Boiler at Zug Island No. 2 Boiler House	1/1/1938	FGBHZI-1&2BLRHSE-S1
EUBHZI2-3-BOILER-S1	No. 3 Boiler at Zug Island No. 2 Boiler House	1/1/1938	FGBHZI-1&2BLRHSE-S1
EUBHZI2-4-BOILER-S1	No. 4 Boiler at Zug Island No. 2 Boiler House	1/1/1938	FGBHZI-1&2BLRHSE-S1
EUBHZI2-5-BOILER-S1	No. 5 Boiler at Zug Island No. 2 Boiler House	1/1/1938	FGBHZI-1&2BLRHSE-S1
EUBHZI3-1-BOILER-S1	No. 1 Boiler at Zug Island No. 3 Boiler House	1/1/1988	FGBHZI-3-BLRHSE-S1
EUBHZI3-2-BOILER-S1	No. 2 Boiler at Zug Island No. 3 Boiler House	1/1/1988	FGBHZI-3-BLRHSE-S1
EUBHMP-1-8-S1	No. 8 Boiler at Main Plant No. 1 Boiler House	1/1/1969	FGBHMP-8&9-BLRS-S1
EUBHMP-1-9-S1	No. 9 Boiler at Main Plant No. 1 Boiler House	1/1/1969	FGBHMP-8&9-BLRS-S1
EUARGON-STIR-S1	No. 1 Argon Stir Station Operation 1.No.1 Argon Stir Station 2.No.1 Argon Stir Station Baghouse	7-1-1977/ 5-12-1997	FGIRON-STEEL-MACT-S1
EULMF-OPERATIONS-S1	Ladle Metallurgy Operations including: 1. Electric arc reheating process 2. No.2 argon stir station 3. Alloy addition station 4. LMF and No.2 Argon Stir Station Baghouse	1-1-1983/ 7-23-1993	FGIRON-STEEL-MACT-S1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUVDG-OPERATIONS-S1	Vacuum Degassing Operations including: 1. Ruhrstahl-Heraeus recirculation vacuum degassing process and Kawasaki top blown oxygen blowing equipment 2. Process flare 3. Water condenser cooling system  Also includes ladle metallurgy additive handling system equipped with baghouse	4-25-1989/ 6-12-1995	NA
EUVDG-DGAS-BLR-S1	60,000 pounds of steam per hour, natural gas fired package water tube boiler for providing process steam – primarily to the Vacuum Degassing Operations	4-27-1989	NA
EU5-PICKLE-LINE-S1	No. 5 Pickle Line Operations, including: 1. Pickle line 2. Acid fume wet scrubber controlling pickle line and HCl tank farm 3. Pickle Line Welder Baghouse (insignificant source) 4. HCL Storage Tank Farm	12-10-1993	NA
EUEGL-OPERATIONS-S1	Electrogalvanizing line operations, including: 1. Precleaning 2. Plating tanks 3. Fume collectors 4. De-greasing unit Scrubber 5. Pre-treatment scrubber (east) 6. Post-treatment scrubber (west), 7. Boiler	1-1-1985/ 2-7-2002	NA
EUEGL-STO-TANKS-S1	Electrogalvanizing line storage tanks, including: 1. Three EGL Solution storage and recirculation tanks 2. Exhaust system 3. Mist eliminator	6-1-1988	NA
EUREACTOR-1-10-S1	EGL Reactor No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, No. 7, No. 8, No. 9, No. 10, and one fume scrubber system	1-1-1985	FGREACTORS-1-10-S1
EUCON-GALV-LINE-S1	Continuous galvanizing operations including: 1. Continuous galvanizing line 2. Continuous galvanizing line annealing furnace 3. Continuous galvanizing line selective catalytic reduction unit with exhaust gas NO <sub>x</sub> and Oxygen analyzers 4. Continuous galvanizing line oiler 5. Continuous galvanizing line pre-cleaner mist scrubber	6-1-1998/ 8-16-2006	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBLAST-FCE-A1-S1	<p>"A1" Blast Furnace consisting of:</p> <ol style="list-style-type: none"> <li>1. "A1" Blast Furnace proper</li> <li>2. Group of 3 stoves ("A1" BF Stoves) and a stack</li> <li>3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack</li> <li>4. Blast Furnace Gas (BFG) dust collector for and scrubber removal of particulate from blast furnace gas generated by "A1" Blast Furnace</li> <li>5. Clean gas safety valve(s)</li> <li>6. Dirty gas safety valve(s)</li> <li>7. Explosion Valve</li> <li>8. Slag Pits</li> <li>9. BFG Flare System</li> </ol>	6-5-1955 / 11-19-1988	FGBLASTFCE-A,B&D-S1 FGIRON-STEEL-MACT-S1
EUBLAST-FCE-B2-S1	<p>"B2" Blast Furnace consisting of:</p> <ol style="list-style-type: none"> <li>1. "B2" Blast Furnace proper</li> <li>2. Group of 4 stoves ("B2" BF Stoves) and a stack</li> <li>3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack</li> <li>4. Blast Furnace Gas (BFG) dust collector and scrubber for removal of particulate from blast furnace gas generated by "B2" Blast Furnace</li> <li>5. Clean gas safety valve(s)</li> <li>6. Dirty gas safety valve(s)</li> <li>7. Explosion Valve</li> <li>8. Slag Pits</li> <li>9. BFG Flare System</li> </ol>	12-1-1941 / 9-24-1986 / 12-7-2002	FGBLASTFCE-A,B&D-S1 FGIRON-STEEL-MACT-S1
EUBLAST-FCE-D4-S1	<p>"D4" Blast Furnace consisting of:</p> <ol style="list-style-type: none"> <li>1. "D4" Blast Furnace proper</li> <li>2. Group of 3 stoves ("D4" BF Stoves) and a stack</li> <li>3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack</li> <li>4. Blast Furnace Gas (BFG) dust collector and scrubber for removal of particulate from blast furnace gas generated by "D4" Blast Furnace</li> <li>5. Clean gas safety valve(s)</li> <li>6. Dirty gas safety valve(s)</li> <li>7. Explosion Valve</li> <li>8. Slag Pits</li> <li>9. BFG Flare System</li> </ol>	9-22-1952 / 10-19-1993	FGBLASTFCE-A,B&D-S1 FGIRON-STEEL-MACT-S1
EUBF-COOLING-TWR-S1	Blast Furnace Cooling Tower	9-25-1986	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU2BOP-HMTDESULF-S1	No. 2 Basic Oxygen Process - Hot Metal Transfer and Desulfurization Operations including: 1. Two hot metal transfer operations 2. Two desulfurization/slag skimming operations 3. No. 2 BOP Shop No. 2 Baghouse	5-1-1995	FG2BOP-SHOP-S1 FGIRON-STEEL-MACT-S1
EU2BOF-CHARGING-S1	Basic Oxygen Furnace – Charging emissions include the following processes and process equipment: 1. Loading scrap into Number 25 and Number 26 Furnaces 2. Transfer of hot metal from the hot metal ladles into the Number 25 and Number 26 Furnaces 3. Three sided enclosures and integral secondary fume hoods for secondary emissions generated during the charging operations Charging operation “secondary emissions” are captured by the secondary emission control system baghouse (the No. 2 BOP No. 1 Baghouse)	8-1-1983	FG2BOP-SHOP-S1, FG2BOPSECONDARY-S1 FGIRON-STEEL-MACT-S1
EU2BOF-TAPPING-S1	Basic Oxygen Furnace – Tapping emission unit group includes the following processes and process equipment: 1. Transfer of steel from Number 25 and Number 26 Furnaces into steel ladles 2. Alloy/Flux additions made during transfer of steel into ladles Tapping operation “secondary emissions” are captured by the secondary emission control system baghouse (No. 2 BOP No. 1 Baghouse) and/or primary emission control system (Electrostatic Precipitator)	11-30-78/ 10-2006	FG2BOP-SHOP-S1, FG2BOPSECONDARY-S1 FGIRON-STEEL-MACT-S1
EU2BOF-VESSELS-S1	Basic Oxygen Furnace Vessels operations, including two Basic Oxygen Process Vessels (BOP Vessels No. 25 and No. 26) and primary emission control system including an electrostatic precipitator and ancillary equipment	10-01-1968	FG2BOP-SHOP-S1 FGIRON-STEEL-MACT-S1
EU80MILLFURNCS-S1	80” Hot strip mill including five natural gas and coke oven gas-fired steel slab reheat ovens	9-01-1961	NA
EU2BOP-FLUX-SYS-S1	The Flux System Operations include the flux (lime) material handling and ancillary equipment	10-16-1970	FG2BOP-SHOP-S1
EUBURNOUT-OVEN-1-S1	Burnout Oven No. 1	4-29-1985 / 7-17-2003	FGBURNOUT-OVENS-S1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBURNOUT-OVEN-2-S1	Burnout Oven No. 2	4-29-1985 / 7-17-2003	FGBURNOUT-OVENS-S1
EUCOLDCLEANERS-S1	Any new cold solvent cleaner placed into operation after 07/01/79 that is exempt from the requirements of R336.1201 pursuant to R336.1281(h) and R336.1285(r)(iv)	NA	FGCOLDCLEANERS-S1
EUKISHWETTINGSTATION-S1	Kish wetting station. Kish pots are transferred from the #2 BOP iron skimming desulfurization station to Levy's Plant #3 watering station where pots are wetted with water for a minimum of 24 hours to control particulate matter when kish pots are emptied. There are a total of 10 watering stations	1-1-1990/ 7-18-2003	NA
EUMAINPLANT-FUG-DUST-S1	Any fugitive dust source at the Main Plant	NA	FG-USSMAINPLANT – FUG-S1
EU80MILL-FUG-DUST-S1	Any fugitive dust source at the 80" hot strip mill	NA	FG-USSMAINPLANT – FUG-S1
EGZUGISLAND-FUG-DUST-S1	Any fugitive dust source at the Zug Island Facility	NA	FG-USS-ZUG-FUG-S1
EUFIXEDSCREEN-S1	800 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a feed hopper; feed conveyor system; a screen; a system of conveyors for screened pellet delivery to the B2 Conveyor, Ore Jenny, and/or storage pile via stacker; and a conveyor system to a fines collection bin. Control equipment includes a screening enclosure (full boot) that covers the screen area and screen transfer points, and partial enclosures on conveyor transfer points.	12-21-2012	FGSCREENING-S1
EUPORTABLE1-S1	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 0.959 MMBtu/hr diesel fired engine. The feed conveyors and screen have partial enclosures that mitigate the particulate emissions.	12-21-2012	FGPORTABLE-S1 FGSCREENING-S1
EUPORTABLE2-S1	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 0.959 MMBtu/hr diesel fired engine. The feed conveyors and screen have partial enclosures that mitigate the particulate emissions.	12-21-2012	FGPORTABLE-S1 FGSCREENING-S1

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUSCREENYARD-S1	Fugitive dust sources associated with the transport and handling of iron ore pellets and fines associated with United States Steel's ore screening equipment include: <ul style="list-style-type: none"> <li>• Front end loader travel areas within and in between storage piles in No. 5 and 6 Yards and the portable screening units</li> <li>• Raw pellet and pellet fines load out activities from ore stock piles in No. 5 and 6 Yard</li> <li>• Front end loader travel areas between storage piles at the No. 3 ore dock and the stationary screening plant</li> <li>• Raw pellet and pellet fines load out activities from ore stock piles at No. 3 ore doc</li> </ul>	12-21-2012	NA
EUEMERGENCY GEN 1-S1	Emergency generators subject to federal regulations - 750 HP diesel, Zug Island No. 1 Boiler House	Manufacture date: 10/2004	FG-NEWRICE>500 hp
EUEMERGENCY GEN 2-S1	750 HP diesel, Zug Island No. 2 Boiler House	Manufacture date: 11/2004	FG-NEWRICE>500 hp
EUEMERGENCY GEN 3-S1	475 HP water pump, D4 slurry pit	Manufacture date: 4/14/97	FG-EXISTINGRICE<500 hp
EUEMERGENCY GEN 4-S1	2,922 HP diesel for Hot Strip Mill (HSM) River pump House	Manufacture date: 3/27/06	FG-NEWRICE>500 hp
EUEMERGENCY GEN 5-S1	2,922 HP diesel for HSM River pump House	Manufacture date: 5/12/06	FG-NEWRICE>500 hp
EUEMERGENCY GEN 7-S1	75 HP diesel fire pump for P Bldg	Manufacture date: 11/06	NA
EUEMERGENCY GEN 8-S1	165 HP diesel water pump for No 2 caster Remanufactured 1985 block	Re-manuf. 1985	FG-EXISTINGRICE<500 hp
EUEMERGENCY GEN 9-S1	205 HP diesel water pump for No. 2 caster Remanufactured 1985 block	Re-manuf. 1985	FG-EXISTINGRICE<500 hp

**EUBHZI3-1-BOILER-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No.1 boiler at No.3 Boiler House Zug Island

Flexible Group ID: FGBHZI-3-BLRHSE-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen Oxide as NO <sub>2</sub>	40.3 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUBHZI3-1-BOILER-S1	G.C.13, VI.1&2	R336.1201(3)
2. Carbon Monoxide	8.06 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUBHZI3-1-BOILER-S1	G.C.13, VI.1&2	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	201,500 cubic feet per hour <sup>2</sup>	Per hour	EUBHZI3-1-BOILER-S1	VI.1	R336.1201(3)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. EUBHZI3-1-BOILER shall be fired with natural gas as the only fuel<sup>2</sup>. (R336.1201(3))

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall install and maintain natural gas metering devices acceptable to AQD to verify the permit limitations<sup>2</sup>. (R336.1201(3))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall maintain records of the monthly natural gas consumption and daily operating hours of EUBHZI3-1-BOILER and make the records available to AQD upon request<sup>2</sup>. (R336.1201, R336.1213(3))
2. The permittee shall calculate and maintain records of NO<sub>x</sub> and CO hourly emissions based on the records of monthly natural gas consumption and daily operating hours and established emission factors. (R336.1213(3))

See Appendix 7-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBHZI-3-1	52 <sup>2</sup>	50 <sup>2</sup>	R336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUBHZI3-2-BOILER-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No.2 boiler at No.3 Boiler House Zug Island

Flexible Group ID: FGBHZI-3-BLRHSE

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen Oxide as NO <sub>2</sub>	47.32 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUBHZI3-2-BOILER-S1	G.C.13, VI.1&2	R336.1201(3)
2. Carbon Monoxide	9.46 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUBHZI3-2-BOILER-S1	G.C.13, VI.1&2	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	236,600 cubic feet per hour <sup>2</sup>	Per hour	EUBHZI3-2-BOILER-S1	VI.1	R336.1201(3)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. EUBHZI3-2-BOILER shall be fired with natural gas as the only fuel<sup>2</sup>. (R336.1201(3))

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall install and maintain natural gas metering devices acceptable to AQD to verify the permit limitations<sup>2</sup>. (R336.1201(3))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall maintain records of the monthly natural gas consumption and daily operating hours of EUBHZI3-2-BOILER and make the records available to AQD upon request<sup>2</sup>. (R336.1201, R336.1213(3))
2. The permittee shall calculate and maintain records of NO<sub>x</sub> and CO hourly emissions based on the records of monthly natural gas consumption and daily operating hours and established emission factors. (R336.1213(3))

See Appendix 7-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBHZI-3-2	52 <sup>2</sup>	60 <sup>2</sup>	R336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUARGON-STIR-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No.1 Argon Stir Station and baghouse

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.01 grains per dry standard cubic foot of exhaust gas <sup>2,a</sup>	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUARGON-STIR-S1	V.1&2, VI.3&4	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.11
2. Particulate Matter	0.543 pounds per heat on a calendar day basis <sup>2</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EUARGON-STIR-S1	V.1&2, VI.3	SIP No. 27-1993, Exhibit B, Paragraph 4, R336.1201(3)
3. Particulate Matter	1.4 pounds per hour <sup>2</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EUARGON-STIR-S1	V.1&2, VI.3&4	R336.1201(3)
4. Particulate Matter	3.04 tons per year <sup>2</sup>	Calendar year	EUARGON-STIR-S1	V.2, VI.3	R336.1201(3)
5. Visible Emissions	10% opacity <sup>2</sup>	6-minute average	EUARGON-STIR-S1	V.1, VI.3	R336.1201(3), R336.1301(1)(c)

<sup>a</sup>In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined particulate matter limit shall be considered compliance with the particulate matter limit established by **40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.11** and also compliance with the particulate matter limit in **SIP CO No. 27-1993, Exhibit B, Paragraph 4, R336.1201(3)**, additional applicable requirements that have been subsumed within this condition.

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The maximum number of heats shall not exceed 13,505 heats per calendar year<sup>2</sup>.  
(SIP No. 27-1993, Exhibit B, Paragraph 4, R336.1201(3))

2. The permittee shall not operate EUARGON-STIR-S1 unless the baghouse dust collector is installed and operating properly<sup>2</sup>. **(R336.1201(3))**
3. The permittee shall implement and maintain the Malfunction Abatement Plan (MAP) for the No. 1 Argon Stir Station Baghouse developed pursuant to Consent Order WCAQMD 96-10. The MAP can be revised as appropriate, and alternate formats or revisions to the approved MAPs can be made upon approval by the AQD District Supervisor<sup>2</sup>. **(CO No. 96-10, Section 5e, Paragraph 1, R336.1213(3), R336.1911)**
4. Permittee shall implement an Operation and Maintenance Plan (OMP) for the No. 1 Argon Stir Station Baghouse which shall include the following elements:
  - i) Monthly inspections for the proper operation of all pressure sensors dampers and dampers switches
  - ii) Monthly inspections of the integrity of ductwork hoods and fan housings
  - iii) A requirement to repair any defect that could reasonably be expected to result in non compliance identified during any inspection within 30 days. Any repair anticipated to extend beyond 30 days shall require a compliance plan be submitted to the AQD Detroit Office Supervisor for approval. The compliance plan shall include details of activities necessary to bring the facility into compliance with corresponding milestone dates included
  - iv) Preventative maintenance for each control device **(AQD CO 1-2005, Paragraph B.2)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform a certified Method 9 visible emission observation of the No.1 Argon Stir Station Baghouse stack at least once every six months (between January – June and July – December). The required certified Method 9 visible emission observations shall be performed during heating activity and the duration of each certified Method 9 visible emission observation shall be a minimum of one hour. **(R336.1213(3))**
2. Permittee shall conduct a performance test of the No. 1 Argon Stir Station Baghouse for particulate matter (PM) emissions no less frequently than once per permit term. Testing shall be performed in accordance with Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17, as applicable, (concentration of particulate matter - front half filterable catch only), or another AQD approved method and shall occur only when the processes being controlled are in operation. Each test run shall collect a minimum sample volume of 60 DSCF of gas and three valid test runs are needed to comprise a performance test. Permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test **(R336.1213(3), 40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**

See Appendix 5-S1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the total number of heats per calendar year and tons of particulate matter emitted per calendar year and make the records available to AQD upon request. **(R336.1213(3))**

2. The permittee shall keep a written record of each certified Method 9 visible emission observation required by V.1. The permittee shall initiate corrective action if visible emissions exceeding the limit are observed during certified Method 9 visible emission observations and keep a written record of each corrective action taken. **(R336.1213(3))**
3. The permittee shall conduct inspections of the No. 1 Argon Stir Station Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (viii) below. The permittee shall maintain records needed to document conformance with these requirements.
  - (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (iii) Check the compressed air supply for pulse-jet baghouses each day.
  - (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - (vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
  - (vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - (viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3), 40 CFR 64.6(c)(1)(i and ii))**
4. The permittee shall install, operate and maintain a bag leak detection system to monitor the relative change in particulate matter loadings for the No. 1 Argon Stir Station Baghouse according to the requirements of 40 CFR 63.7831(f). **(40 CFR 63.7830(b)(1), 40 CFR 63.7831(f), 40 CFR 64.6(c)(1)(i and ii))**
5. The permittee shall record all information needed to document conformance of each bag leak detection system with applicable requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7833(c)(1))**
6. In the event of a bag leak detection alarm, the permittee shall maintain records of the time corrective action was initiated, the corrective actions taken, and date corrective action was completed. **(40 CFR 63.7833(c)(4))**
7. An excursion is a bag leak detection alarm or a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.3 and VI.6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUARGON-STIR-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
8. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
9. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
10. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable.

The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**(40 CFR 64.6(c)(3), 64.7(c))**

11. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendix 7-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVARGN-BAGHSE	42 <sup>2</sup>	173 <sup>2</sup>	<b>R336.1201(3)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EULMF-OPERATIONS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Ladle Metallurgy Operations including:

1. Electric arc reheating process
2. No.2 argon stir station
3. Alloy addition station
4. LMF and No. 2 Argon Stir Station positive pressure baghouse

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

LMF and No. 2 Argon Stir Station positive pressure baghouse

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter	0.005 grains per dry standard cubic foot of exhaust gas <sup>2</sup> (during LMF and No 2. Argon operations simultaneously)	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EULMF-OPERATIONS-S1	V.2&3, VI.4	<b>SIP CO No. 27-1993, Exhibit B, Paragraph 6, R336.1201(3)</b>
2. Particulate Matter	0.01 grains per dry standard cubic foot of exhaust gas (during LMF and No 2. Argon operations simultaneously)	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EULMF-OPERATIONS-S1	V.2&3, VI.4	<b>40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.11</b>
3. Particulate Matter	1.077 pounds per heat <sup>2</sup> (during LMF operations)	Calendar Day Basis	EULMF-OPERATIONS-S1	V.2&3, VI.4	<b>SIP CO No. 27-1993, Exhibit B, Paragraph 6, R336.1201(3)</b>
4. Particulate Matter	0.108 pounds per heat <sup>2</sup> (during No. 2 Argon Stir Station Operation)	Calendar Day Basis	EULMF-OPERATIONS-S1	V.2&3, VI.4	<b>SIP CO No. 27-1993, Exhibit B, Paragraph 6, R336.1201(3)</b>
5. Particulate Matter	0.856 pounds per hour <sup>2</sup> (during Material Handling Operations)	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EULMF-OPERATIONS-S1	V.2&3, VI.4	<b>R336.1201(3)</b>
6. Visible Emissions	10% opacity <sup>2</sup>	6-minute average	EULMF-OPERATIONS-S1 Baghouse	V.1&2, VI.4	<b>R336.1201(3), R336.1301(1)(c)</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. Visible emissions	20% opacity	3-minute average	EULMF- OPERATIONS Roof Monitors	V.1&2, VI.4	40 CFR 63.7790(a)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The maximum number of heats for the LMF furnace operation shall not exceed 9,855 heats per year<sup>2</sup>. **(SIP CO No. 27-1993, Exhibit B, Paragraph 6, R336.1201(3))**
2. The maximum number of heats for the No.2 argon stir operation shall not exceed 12,775 heats per year<sup>2</sup>. **(SIP CO No. 27-1993, Exhibit B, Paragraph 6, R336.1201(3))**
3. The permittee shall not operate the LMF operations unless instrumentation measuring pressure drop across the fabric filter collectors is installed and operating properly<sup>2</sup>. **(R336.1201(3))**
4. The permittee shall implement and maintain the Malfunction Abatement Plan (MAP) for the LMF Baghouse developed pursuant to Consent Order WCAQMD 96-10. The MAP can be revised, as appropriate, and alternate formats or revisions to the approved MAP can be made upon approval by the AQD District Supervisor<sup>2</sup>. **(CO No. 96-10, Section 5e, Paragraph 1, R336.1213(3), R336.1911)**
5. Permittee shall implement an Operation and Maintenance Plan (OMP) for the LMF and No. 2 Argon baghouse which shall include the following elements:
  - i) Monthly inspections for the proper operation of all pressure sensors dampers and dampers switches
  - ii) Monthly inspections of the integrity of ductwork hoods and fan housings
  - iii) A requirement to repair any defect that could reasonably be expected to result in non compliance identified during any inspection within 30 days. Any repair anticipated to extend beyond 30 days shall require a compliance plan be submitted to the AQD Detroit Office Supervisor for approval. The compliance plan shall include details of activities necessary to bring the facility into compliance with corresponding milestone dates included
  - iv) Preventative maintenance for each control device **(AQD CO 1-2005, Paragraph B.2)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform a non-certified visible emission observation of the No.2 argon stir station and LMF baghouse vents at least once a week during source operations. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform a certified Method 9 visible emission observation of the No.2 argon stir station and LMF baghouse vents at least once every six months (between Jan – June and July – December) for a minimum of 1 hour during source operations. **(R336.1213(3))**

3. The permittee shall conduct a performance test of the No. 2 Argon Stir Station and LMF Baghouse for particulate matter (PM) emissions no less frequently than once per permit term. Testing shall be performed in accordance with Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17, as applicable, (concentration of particulate matter - front half filterable catch only), or another AQD approved method and shall occur only when the processes being controlled are in operation. Each test run shall collect a minimum sample volume of 60 DSCF of gas and three valid test runs are needed to comprise a performance test. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test **(R336.1213(3), 40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the total number of heats per year for the LMF Furnace operation and No.2 Argon Stir Operation separately based on a 12-month rolling time period as determined at the end of each calendar month and make the records available to AQD upon request. **(R336.1213(3))**
2. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall keep a written record of each certified visible emission observation required by V.2. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
4. The permittee shall conduct inspections of the No. 2 Argon Stir Station and LMF baghouse at the specified frequencies according to the requirements in paragraphs (i) through (viii) below. Permittee shall maintain records needed to document conformance with these requirements.
  - (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (iii) Check the compressed air supply for pulse-jet baghouses each day.
  - (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - (vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
  - (vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - (viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3))**
5. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**

6. An excursion is a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.4. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EULMFOPERATIONS-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
7. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
8. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
9. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

#### **Appendix 7-S1**

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUVDG-OPERATIONS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Vacuum Degassing Operations including:

1. Ruhrstahl-Heraeus recirculation vacuum degassing process and Kawasaki top blown oxygen blowing equipment
2. Process flare
3. Water condenser cooling system
4. Ladle metallurgy additive handling system equipped with baghouse

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Vacuum degassing flare and ladle metallurgy additive handling system baghouse

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter	0.005 grains per dry standard cubic foot of exhaust gas <sup>2</sup>	As determined through reference test method 5D at R 336.2013	EUVDG-OPERATIONS-S1 (Ladle metallurgy additive handling systems baghouse)	V.3, VI.4&7	<b>SIP CO No. 27-1993, Exhibit B, Paragraph 5, R336.1201(3)</b>
2. Carbon Monoxide	7 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-OPERATIONS-S1 (Vacuum degassing flare)	G.C.13, VI.1&8	<b>R336.1201(3)</b>
3. Nitrogen Oxides	3.36 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-OPERATIONS-S1 (Vacuum degassing flare)	G.C. 13, VI.1&8	<b>R336.1201(3)</b>
4. Visible Emissions	5% opacity <sup>2</sup>	6-minute average	EUVDG-OPERATIONS-S1 (Ladle metallurgy additive handling systems baghouse)	V.1&2	<b>R336.1201(3)</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Visible Emissions	5% opacity <sup>2</sup>	6-minute average	EUVDG-OPERATIONS-S1 (Vacuum degassing flare)	V.1&2, VI.8	R336.1201(3)
6. Visible Emissions	10% opacity <sup>2</sup>	6-minute average	EUVDG-OPERATIONS-S1 (Vacuum degassing process roof monitors)	V.1&2	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas usage in the flare	210,240,000 cubic feet per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EUVDG-OPERATIONS-S1 (Vacuum degassing flare)	VI.1	R336.1201(3)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not process more than 10,950 heats at the vacuum degasser per 12-month rolling time period as determined at the end of each calendar month<sup>2</sup>. **(R336.1201(3))**
2. The permittee shall not process more than 2,737,500 tons of steel at the vacuum degasser per 12-month rolling time period as determined at the end of each calendar month<sup>2</sup>. **(R336.1201(3))**
3. The permittee shall not operate the vacuum degassing operations unless the process flare and water condenser cooling system are installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1201(3))**
4. The permittee shall not operate the ladle metallurgy additive handling system unless the baghouse is installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1201(3))**
5. Permittee shall implement an Operation and Maintenance Plan (OMP) for the ladle metallurgy additive handling systems baghouse which shall include the following elements:
  - a. Monthly inspections for the proper operation of all pressure sensors dampers and dampers switches
  - b. Monthly inspections of the integrity of ductwork hoods and fan housings
  - c. A requirement to repair any defect that could reasonably be expected to result in non compliance identified during any inspection within 30 days. Any repair anticipated to extend beyond 30 days shall require a compliance plan be submitted to AQD Detroit Office Supervisor for approval. The compliance plan shall include details of activities necessary to bring the facility into compliance with corresponding milestone dates included
  - d. Preventative maintenance for each control device **(AQD CO 1-2005, Paragraph B.2)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform a non-certified visible emission observation of the ladle metallurgy additive handling systems baghouse stack, vacuum degassing process flare and vacuum degassing process roof monitors at least once a week during vacuum degassing activity. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform a Method 9 certified visible emission observation of the ladle metallurgy additive handling systems baghouse stack, vacuum degassing process flare, and vacuum degassing process roof monitors at least once every six months (between Jan – June and July – December) for a minimum of 1 hour during vacuum degassing activity. **(R336.1213(3))**
3. The permittee shall conduct a performance test of the Ladle Metallurgy Additive Handling Systems baghouse stack for particulate matter (PM) emissions no less frequently than once per permit term. Testing shall be performed in accordance with Reference Method 5D. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

**See Appendix 5-S1**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records, in a satisfactory manner, of the total natural gas usage on a monthly and 12-month rolling time period determined at the end of each calendar month for the Vacuum Degasser Flare and make the records available to AQD upon request<sup>2</sup>. **(R336.1201(3), R336.1213(3))**
2. The permittee shall maintain records, in a satisfactory manner, of the total number of heats processed at the Vacuum Degasser per month and 12-month rolling time period determined at the end of each calendar month and make the records available to AQD upon request<sup>2</sup>. **(R336.1201(3), R336.1213(3))**
3. The permittee shall maintain, in a satisfactory manner, records of the total amount of steel processed at the Vacuum Degasser per month and 12-month rolling time period determined at the end of each calendar month and make the records available to AQD upon request<sup>2</sup>. **(R336.1201(3), R336.1213(3))**
4. The permittee shall monitor and record the pressure drop across the baghouse daily and make the records available to AQD upon request. A pressure drop across the baghouse filters between 1 and 12 inches of water column is an indicator of normal baghouse operation. This normal pressure drop range can be changed upon approval by the AQD District Supervisor. The permittee shall initiate appropriate maintenance activity on the baghouse if the pressure drop exceeds the normal range. **(R336.1213(3))**
5. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
6. The permittee shall keep a written record of each certified visible emission observation required by V.2. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
7. The permittee shall conduct regular inspections for the purpose of determining the operational condition of the baghouse, and if necessary, the reasons for malfunction or failure. These inspections shall be conducted during scheduled outages or downtimes, and as soon as practicable after observing visible emissions as warranted, but not less frequently than at least once a month and shall keep a written record of each inspection and corrective action taken if any. **(R336.1213(3))**

8. The permittee shall conduct regular inspections for the purpose of determining the operational condition of the flare at least once every six months. A log of the inspection, cause(s) of malfunction or failure, repairs made and corrective actions taken shall be kept and maintained on file for a period of at least five years. **(R336.1213(3))**
9. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005)**

**See Appendices 3-S1, 4-S1, and/or 7-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVVDG-DGAS-FLARE	NA <sup>2</sup>	190 <sup>2</sup>	R336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUVDG-DGAS-BLR-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

60,000 pounds of steam per hour, natural gas fired package water tube boiler for providing process steam (primarily to the Vacuum Degassing Operations).

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter	0.001 pounds per million BTU <sup>2</sup>	As determined through reference test method 5B at R 336.2011 or method 5C at R 336.2012 when requested by AQD	EUVDG-DGAS-BLR-S1	G.C.13, VI.1,2,&3	<b>R336.1201(3)</b>
2. Particulate Matter	0.09 pounds per hour <sup>2</sup>	As determined through reference test method 5B at R 336.2011 or method 5C at R 336.2012 when requested by AQD	EUVDG-DGAS-BLR-S1	G.C. 13, VI.1,2,&3	<b>R336.1201(3)</b>
3. Carbon Monoxide	0.15 pounds per million BTU <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-DGAS-BLR-S1	G.C. 13, VI.1,2,&3	<b>R336.1201(3)</b>
4. Carbon Monoxide	13.6 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-DGAS-BLR-S1	G.C.13, VI.1,2,&3	<b>R336.1201(3)</b>
5. Nitrogen Oxides	0.20 pounds per million BTU <sup>2</sup>	As determined by the average of three one-hour test runs when requested by AQD or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-DGAS-BLR-S1	G.C. 13, VI.1,2,&3	<b>R336.1201(3)</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Nitrogen Oxides	18.1 pounds per hour <sup>2</sup>	As determined by the average of three one-hour time periods by testing or otherwise determined by the testing protocol agreed upon by AQD	EUVDG-DGAS-BLR-S1	G.C.13, VI.1,2,&3	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. EUVDG-DGAS-BLR shall be operated using only natural gas as a fuel<sup>2</sup>. (R336.1201(3))

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The maximum heat input to EUVDG-DGAS-BLR shall not exceed 90.4 million BTU per hour<sup>2</sup>. (R336.1201(3))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall record the total monthly natural gas consumption of EUVDG-DGAS-BLR and make the records available to AQD upon request. (R336.1213(3))
2. The permittee shall keep records of the total monthly operating hours for EUVDG-DGAS-BLR and make the records available to AQD upon request. (R336.1213(3))
3. The permittee shall keep records of the hourly and monthly particulate, carbon monoxide and nitrogen oxides emissions from EUVDG-DGAS-BLR. (R336.1213(3))

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVVDG-DGAS-BLR	48 <sup>2</sup>	45 <sup>2</sup>	<b>R336.1201(3)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU5-PICKLE-LINE-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No. 5 Pickle Line Operations, including:

1. Pickle line
2. Acid fume wet scrubber
3. Pickle line welder cartridge filter dust collector
4. Pickle line tank farm

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

Wet scrubber controlling the No 5 pickle line and acid tank farm, and a dust collector

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Hydrogen Chloride	1.64 pounds per hour <sup>2</sup>	As determined by the average of three one-hour time periods by testing or otherwise determined by the testing protocol agreed upon by AQD	EU5-PICKLE-LINE-S1 (No 5. Pickle Line Scrubber)	V.3, VI.1&2	R336.1201(3)
2. Hydrogen Chloride	18 parts per million by volume	As determined by the testing procedures in 40 CFR Part 63 Subpart CCC	EU5-PICKLE-LINE-S1 (No 5. Pickle Line Scrubber)	V.1 &2, VI.1&2	40 CFR 63.1157(a)(1)
<b>OR</b>					
2. Hydrogen Chloride	Mass emission rate that corresponds to a collection efficiency of not less than 97 percent	As determined by the testing procedures in 40 CFR Part 63 Subpart CCC	EU5-PICKLE-LINE-S1 (No 5. Pickle Line Scrubber)	V.1 &2, VI.1&2	40 CFR 63.1157(a)(2)
3. Particulate matter	0.10 pounds per 1,000 pounds dry gas <sup>2</sup>	As determined through reference method 5B or 5C at R336.2013 when requested by AQD	EU5-PICKLE-LINE-S1 (No 5. Pickle Line dust collector)	G.C. 13, III.6	R336.1331, Table 31, Section J

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU5-PICKLE-LINE unless the acid fume wet scrubber is installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1201(3), R336.1225, R336.1299)**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the pressure drop, makeup water flowrate, and, if required, recirculation water flowrate in the EU5-PICKLE-LINE acid fume wet scrubber consistent with the requirements of 40 CFR 63 Subpart CCC. Monitored data shall be recorded once per operating shift<sup>2</sup>. **(R336.1201(3), R336.1225, R336.1229, R336.1901, R336.1910)**
3. The permittee shall install, operate and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. **(40 CFR 63.1162(a)(2))**
4. As required by §63.6(e)(3) of subpart A of this part, the owner or operator shall develop and comply with a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, or malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standards The permittee shall maintain and, when necessary, implement a startup, shutdown, and malfunction plan for operating and maintaining the source during periods of startup, shutdown, or malfunction, and a program of corrective actions for malfunctioning process and air pollution control equipment used to comply with the relevant standards. **(40 CFR 63.6(e)(3), 40 CFR 63.1160(b)(1))**
5. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for EU5-PICKLE-LINE wet scrubber consistent with good maintenance practices and, for a scrubber emission control device, must at a minimum:
  - a. Monitor and record the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance; **(40 CFR 63.1160(b)(1)(i))**
  - b. Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans; **(40 CFR 63.1160(b)(1)(ii))**
  - c. Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling; **(40 CFR 63.1160(b)(1)(iii))**
  - d. Require an inspection of each scrubber at intervals of no less than 3 months with:**(40 CFR 63.1160(b)(1)(iv))**
    - (i) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices; **(40 CFR 63.1160(b)(1)(iv)(A))**
    - (ii) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components; **(40 CFR 63.1160(b)(1)(iv)(B))**
    - (iii) Repair or replacement of droplet eliminator elements as needed; **(40 CFR 63.1160(b)(1)(iv)(C))**
    - (iv) Repair or replacement of heat exchanger elements used to control the temperature of liquids entering or leaving the scrubber; **(40 CFR 63.1160(b)(1)(iv)(D))** and
    - (v) Adjustment of damper settings for consistency with the required air flow. **(40 CFR 63.1160(b)(1)(iv)(E))**
  - e. If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used. **(40 CFR 63.1160(b)(1)(v))**
  - f. The permittee shall initiate procedures for corrective action within one (1) working day of detection of an operating problem as specified in the maintenance plan and complete all corrective actions as soon as practicable. **(40 CFR 63.1160(b)(1)(vi))**
  - g. The permittee shall maintain a record of each inspection, including each item identified in Condition IX.5.d(i)-(v). This record shall be: **(40 CFR 63.1160(b)(1)(vii))**
    - (i) signed by the responsible maintenance official;
    - (ii) show the date of each inspection;
    - (iii) identify any problems discovered;
    - (iv) contain a description of any repairs, replacements or other corrective actions taken;

(v) identify the date of any repairs, replacements or other corrective actions taken.  
**(R336.1213(3), 40 CFR 63.1160(b)(1)), R336.1911)**

6. The permittee shall develop and implement a malfunction abatement plan (MAP) for the No. 5 pickle line dust collector. The MAP shall, at a minimum, specify the following:
  - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits<sup>2</sup>. **(R 336.1911)**

7. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test will require initiation of corrective action as specified by the maintenance requirements in 40 CFR 63.1160(b)(1). **(40 CFR 63.1162(a)(2))**
8. The permittee shall provide and operate the hydrochloric acid storage vessels, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device. **(40 CFR 63.1159(b))**
9. At all times, each owner or operator must operate and maintain any affected source subject to the requirements of 40 CFR Part 63, Subpart CCC, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.1159(c))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a performance test to determine the hydrogen chloride mass flow at the control device inlet and outlet or the concentration of hydrogen chloride exiting the No.5 Pickle Line wet scrubber no less frequently than every 2 ½ years or twice per Title V permit term. The performance testing will be performed using Method 26A or an equivalent alternative measurement methods approved by the Administrator. Compliance shall be determined by the average of any three of four consecutive runs conducted in the

performance test and each run shall be conducted under conditions representative of normal process operations. No less than 60 days prior to the hydrogen chloride emission test, the permittee shall submit to the AQD notification of the testing date to allow the AQD to have an observer present during the test. The permittee shall also submit a site specific test plan at this time for approval by the AQD prior to testing.

**(40 CFR 63.1162(a)(1), 40 CFR 63.1161(d)(1)(v) 40 CFR 63.1161(d)(2), 40 CFR 63.7(c), 40 CFR 63.9(e), 40 CFR 63.1163(d), R336.2001)**

2. During the performance test for No. 5 pickle line scrubber, the permittee shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation, the minimum recirculation water flow rate. During the performance test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The permittee shall determine the operating parameter monitoring values as the average of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency. The permittee may conduct multiple performance tests to establish alternative compliant operating parameters values. The permittee may reestablish compliant operating parameter values as part of any performance test that is conducted. **(40 CFR 63.1161(b))**
3. The permittee shall conduct a performance test to determine the pounds per hour emission rate of hydrogen chloride from the No. 5 Pickle Line scrubber stack once every five years or more frequently upon the request of AQD. No less than 30 days prior to each testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The pressure drop across the scrubber must be monitored continuously and recorded at least once per shift while the scrubber is operating. **(R336.1213)**
2. The makeup water flow rate to the scrubber and water recirculation rate must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in 40 CFR 63.1160(b)(1). **(40 CFR 63.1162(a)(2))**
3. Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year. **(40FR 63.1162(a)(5))**
4. The permittee shall inspect each pickle line operation associated hydrochloric acid storage vessel semiannually to determine that the closed-vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required. **(40 CFR Part 63, Subpart CCC, 63.1162(c))**
5. The permittee may develop and implement alternative monitoring requirements subject to approval by the Administrator. **(40 CFR 63.1162(a)(6))**
6. The permittee shall maintain records of the occurrence and duration of each malfunction of operation for process equipment. **(40 CFR 63.1165(a)(1))**

7. The permittee shall maintain records of the occurrence and duration of each malfunction of operation for process equipment. the air pollution control equipment. **(40 CFR 63.1165(a)(2))**
8. The permittee shall maintain records of all maintenance performed on the air pollution control equipment. **(40 CFR 63.1165(a)(3))**
9. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 63.1259(c) and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). **(40 CFR 63.1165(a)(4))**
10. The permittee shall maintain records of all required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including, but not limited to, performance test measurements, (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests. **(40 CFR 63.1165(a)(5))**
11. The permittee shall maintain records of all results of initial or subsequent performance tests. **(40 CFR 63.1165(a)(6))**
12. The permittee shall maintain records of any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements if such a waiver has been granted to the permittee. **(40 CFR 63.1165(a)(7))**
13. The permittee shall maintain records of all documentation supporting initial notifications and notifications of compliance status. **(40 CFR 63.1165(a)(9))**
14. The permittee shall maintain records of any applicability determination, including supporting analyses. **(40 CFR 63.1165(a)(10))**
15. The permittee shall maintain records of scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used. **(40 CFR 63.1165(b)(1)(i))**
16. The permittee shall maintain records of calibration and manufacturer certification that monitoring devices are accurate to within 5 percent. **(40 CFR 63.1165(b)(1)(ii))**
17. The permittee shall maintain records of each maintenance inspection and repair, replacement, or other corrective action. **(40 CFR 63.1165(b)(1)(iii))**
18. Records required by 40 CFR 63 Subparts A and CCC must be maintained on site for the most recent two years of operation. Records for the previous three years may be maintained off site. **(40 CFR 63.1165(c))**
19. The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan. **(40 CFR 63.1165(b)(3))**

**See Appendices 3-S1 and 4-S1**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Within 60 days after the date of completing each performance test (defined in §63.2), as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in §63.13. **(40 CFR 63.1164(a))**
5. The owner or operator of an affected source who is required to submit progress reports under §63.6(i) of subpart A of this part shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance. **(40 CFR 63.1164(b))**
6. The number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded shall be stated in a semiannual report. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1159(c), including actions taken to correct a malfunction. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half. **(40 CFR 63.1164(c))**
7. In response to an action to enforce the standards set forth in this subpart, the owner or operator may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by a malfunction, as defined in §63.2. Appropriate penalties may be assessed, however, if the owner or operator fails to meet the burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief. (1) To establish the affirmative defense in any action to enforce such a standard, the owner or operator must timely meet the reporting requirements of paragraph (d)(2) of this section, and must prove by a preponderance of evidence that: (i) The violation was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal and usual manner; and could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and did not stem from any activity or event that could have been foreseen and avoided, or planned for; and was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and (ii) Repairs were made as expeditiously as possible when exceeded violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and (iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and (iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and (v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the

environment, and human health; and (vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and (vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and (viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and a written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using the best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction. **(40 CFR 63.1155(d)(1))**

8. The owner of operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (d)(1) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmation defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard. **(40 CFR 63.1155(d)(2))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVPIC-SCRUBBER	42 <sup>2</sup>	69 <sup>2</sup>	R336.1201(3), R336.1225

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUEGL-OPERATIONS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Electrogalvanizing line operations, consisting of:

1. Precleaning
2. Plating tanks
3. Fume collectors
4. De-greasing unit Scrubber
5. Pre-treatment scrubber (east)
6. Post-treatment scrubber (west)
7. Boiler

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Scrubbers

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Sulfuric Acid Mist	1 milligram per cubic meter, corrected to 70 degrees Fahrenheit and 29.92 mm Hg <sup>2</sup>	As determined through reference test method 8 at R336.2004 or otherwise determined by the testing protocol agreed upon by AQD	EUEGL- OPERATIONS-S1 (This limit applies to the pre and post scrubber separately)	V.1	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUEGL-OPERATIONS-S1 unless the emission control system is installed and operating properly<sup>2</sup>. **(R336.1910, R336.1201(3))**
2. The permittee shall implement increased maintenance operations for the pumps on the EGL scrubber systems and increased regular inspections of these systems. Such inspections shall be implemented monthly and shall include, at a minimum, EGL scrubber system pressures, pump and fan amperage where available, and system maintenance status<sup>2</sup>. **(WCAQMD Consent Order 0035-97, Paragraph A (9), R336.1213(3),R336.1910)**
3. The permittee shall implement and maintain the Malfunction Abatement Plans (MAPs) for the EGL Scrubbers developed pursuant to Consent Order WCAQMD 96-10. The MAPs can be revised, as appropriate, and

alternate formats or revisions to the approved MAPs can be made upon approval by the AQD Detroit District Supervisor<sup>2</sup>. **(WCAQMD Consent Order No. 96-10, Section 5e, Paragraph 1, R336.1213(3), R336.1911)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a performance test of each scrubber (pretreatment and post treatment) for sulfuric acid mist no less frequently than once every five years. No less than 30 days prior to each testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5-S1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record the EGL scrubber system pressures daily while operating the EGL and make the records available to AQD upon request. **(Consent Order No. 0035-97, Paragraph A(9), R336.1213(3))**
2. The permittee shall keep records of the pump and fan amperage (where available) daily while operating the EGL and make the records available to AQD upon request. **(Consent Order No. 0035-97, Paragraph A(9), R336.1213(3))**
3. The permittee shall keep records of the regular monthly system maintenance inspections conducted on the EGL scrubber systems with detailed inspection observations and any corrective action taken. **(Consent Order No. 0035-97, Paragraph A(9), R336.1213(3))**

See Appendix 4-S1

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

#### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVEGL-PRE-SCRBR	42 <sup>2</sup>	69 <sup>2</sup>	<b>R 336.1201(3)</b>
2. SVEGL-POST-SCRBR	42 <sup>2</sup>	69 <sup>2</sup>	<b>R 336.1201(3)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUEGL-STO-TANKS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Electrogalvanizing line storage tanks, including:

1. Three EGL solution storage and recirculation tanks
2. Exhaust system
3. Mist eliminator

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Mist Eliminator

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfuric Acid	1 milligram per cubic meter exhaust air, corrected to 70 degrees Fahrenheit and 29.92 inches of mercury <sup>2</sup>	As determined through reference test method 8 at R336.2004 or otherwise determined by the testing protocol agreed upon by AQD	EUEGL-STO-TANKS-S1 (Mist eliminator stack)	V.1, VI.1	R336.1201(3)
2. Sulfuric Acid	0.038 pounds per hour <sup>2</sup>	As determined through reference test method 8 at R336.2004 or otherwise determined by the testing protocol agreed upon by AQD	EUEGL-STO-TANKS-S1 (Mist eliminator stack)	V.1, VI.1	R336.1201(3)
3. Sulfuric Acid	0.17 tons per year <sup>2</sup>	Yearly	EUEGL-STO-TANKS-S1 (Mist eliminator stack)	VI.2	R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The electrogalvanizing solution storage tank exhaust venting system shall not be used unless the mist eliminator is installed and operating properly<sup>2</sup>. **(R336.1201(3), R336.1910)**
2. The water used in the mist eliminator shall not be reused in the mist eliminator<sup>2</sup>. **(R336.1201(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a sulfuric acid mist emission test from the EGL storage tanks exhaust system operation once every five years or more frequently upon the request of AQD. Sulfuric acid mist emission testing shall be performed using Reference Method 8 or other approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record the water flow rate in the mist eliminator daily and make the records available to AQD upon request. Permittee shall take appropriate corrective action if water flow rate is below 0.25 gallons per minute and shall keep a record of corrective action taken. **(R336.1213(3))**
2. The permittee shall calculate and record the total sulfuric acid emitted from the mist eliminator stack each calendar year based on the emission rate from the stack test results of V.1. **(R336.1213(3))**

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. After a determination by and written notification from the AQD District Supervisor that the emission from the mist eliminator are causing R336.1901 violations, the permittee shall take immediate action to abate the source of odors. The permittee shall submit an abatement program for the permanent resolution of the odor problem within 30 days of the notification by AQD<sup>1</sup>. **(R336.1201(3))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUCON-GALV-LINE-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Continuous galvanizing operations consisting of:

1. Continuous galvanizing line
2. Continuous galvanizing line annealing furnace
3. Continuous galvanizing line selective catalytic reduction unit with exhaust gas NO<sub>x</sub> and Oxygen analyzers
4. Continuous galvanizing line oiler
5. Continuous galvanizing line pre-cleaner mist scrubber

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Pre-cleaner mist scrubber and Selective Catalytic Reduction Unit

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Total combined nitrogen oxide emissions as nitrogen dioxide (NO <sub>x</sub> )	7.24 pounds per hour <sup>2</sup>	Per hour	EUCON-GALV-LINE-S1 Annealing Furnace and the edge burners of the hot dip galvanizing line in the G-Building	V.1, VI.1,2,&3	<b>R336.1201(3), R336.1205</b>
2. Total combined nitrogen oxide emissions as nitrogen dioxide (NO <sub>x</sub> )	27.51 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	EUCON-GALV-LINE-S1 Annealing Furnace and the edge burners of the hot dip galvanizing line in the G-Building	V.1, VI.1,2&3	<b>R336.1201(3), R336.1205</b>
3. Nitrogen Oxide	6.6 pounds per hour <sup>2</sup>	As determined by the average of three one-hour time periods by testing or otherwise determined by the testing protocol agreed upon by AQD	EUCON-GALV-LINE-S1 Annealing Furnace controlled by a Selective Catalytic Reduction (SCR) unit	V.1, VI.1,2&3	<b>R336.1201(3), R336.1205</b>
4. Nitrogen Oxide	25 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determine at the end of each calendar month	EUCON-GALV-LINE-S1 Annealing Furnace controlled by a Selective Catalytic Reduction (SCR) unit	V.1, VI.1,2&3	<b>R336.1201(3), R336.1205</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Particulate Matter	0.26 pounds per hour <sup>2</sup>	As determined through reference test method 5	EUCON-GALV-LINE-S1 Electrolytic cleaning process equipment controlled by a cross flow packed bed scrubber system	V.2	R336.1201(3), R336.1205, R336.1331
6. VOC	28.91 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	EUCON-GALV-LINE-S1 Rust preventive oil application electrostatic spray unit operation	VI.13&14	R336.1201(3), R336.1205, R336.1702
7. VOC	0.44 pound per gallon of oil <sup>2</sup>	Per Method 24 or other AQD approved method	EUCON-GALV-LINE-S1 Rust preventive oil application electrostatic spray unit operation	G.C. 13	R336.1201(3), R336.1205, R336.1702
8. Ammonia	1.44 pounds per hour <sup>2</sup>	As determined by the average of three one-hour time periods by testing or otherwise determined by the testing protocol agreed upon by AQD	EUCON-GALV-LINE-S1 Annealing furnace controlled by SCR unit	V.1	R336.1201(3), R336.1224, R336.1225

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Galvanized Steel	850,000 tons processed per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	EUCON-GALV-LINE-S1	VI.3	R336.1201(3), R336.1205
2. Natural Gas	838.6 million cubic feet per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	EUCON-GALV-LINE-S1 Annealing Furnace and Edge Burners	VI.10	R336.1201(3), R336.1205

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The SCR unit shall be equipped with an automatic urea feed injection system controlled by an automatic control system based on feedback and feed forward controls. This automatic control system shall be equipped with an alarm that will indicate any abnormal functioning of the system<sup>2</sup>. (R336.1201(3), R336.1205, 40 CFR Part 64)
2. The permittee shall not operate the electrolytic cleaning process equipment unless the cross flow packed bed scrubber is installed and operating properly. A minimum water flow rate of 30 gallons per minute shall be maintained. The permittee shall install a flow gauge to measure the water flow rate<sup>2</sup>.(R336.1201(3), R336.1205, R336.1331, 40 CFR 64.6(c)(1))

3. NO<sub>x</sub> and Oxygen concentrations in the exhaust gases from the annealing furnace controlled by the SCR unit shall be monitored using NO<sub>x</sub> and Oxygen analyzers and the automatic calibration equipment shall be programmed pursuant to the manufacturer's specifications on a time frame acceptable to the AQD District Supervisor<sup>2</sup>. **(R 336.1201(3), R 336.1205)**
4. The permittee shall not operate the annealing furnace unless the SCR unit is installed and operating properly<sup>2</sup>. **(R 336.1201(3))**
5. The permittee shall develop and implement a malfunction abatement plan (MAP) for the hot dip galvanizing line including the annealing furnace controlled by SCR unit and the electrolytic cleaning process equipment controlled by a packed bed cross flow scrubber. The MAP shall also address malfunction and define abnormal operations of the process including when manual urea feed injections occur. MAP shall include inspections of urea flow meter and temperature gauges<sup>2</sup> **(R336.1201(3), R336.1910, R336.1911)**
6. The permittee shall implement an Operation and Maintenance Plan (OMP) for the SCR unit which shall include the following elements:
  - a. Monthly inspections of all systems associated with the urea feed system
  - b. Preventative maintenance consistent with the manufacturer's recommendations, including a requirement for periodic determination of the functional viability of the catalyst
  - c. A requirement to repair any defect that could reasonably be expected to result in non compliance identified during any inspection within a reasonable time period**(AQD CO 1-2005, Paragraph B.3)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a nitrogen oxides and ammonia emission test from the annealing furnace/SCR unit during operation once every five years or more frequently upon the request of AQD. Nitrogen oxides emission testing shall be performed using Reference Method 7E or other approved method and ammonia emission testing shall be performed using an approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(R336.1213(3))**
2. The permittee shall conduct a particulate matter emission test from the cross flow packed scrubber stack during operation once every five years or more frequently upon the request of AQD. Particulate emission testing shall be performed using Reference Method 17 or other approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3))**

**See Appendix 5-S1**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor NO<sub>x</sub> and Oxygen concentrations in the exhaust gases from the annealing furnace controlled by the SCR unit using the NO<sub>x</sub> and Oxygen analyzers. The permittee shall continuously monitor outlet NO<sub>x</sub> concentration and record the concentration once per shift as an indicator of proper operation of the Selective Catalytic Reduction (SCR). **(40 CFR 64.6(c)(1)(i and ii), R 336.1201(3), R 336.1205)**
2. The permittee shall continuously monitor the urea injection rate and record the rate once per shift as an indicator of proper operation of the SCR. **(40 CFR 64.6(c)(1)(i and ii))**

3. The permittee shall continuously monitor catalyst bed inlet temperature and record the inlet temperature once per shift as an indicator of proper operation of the SCR. The indicator range is a minimum of 475F. **(40 CFR 64.6(c)(1)(i and ii))**
4. An excursion is a departure from the indicator range defined in Condition VI. 3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUCON-GALV-LINE-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions).  
**((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
5. The permittee shall conduct a cylinder gas audit on the NO<sub>x</sub> and Oxygen analyzers once each calendar quarter to assess the accuracy of the data collected by the monitors using a method acceptable to the AQD District Supervisor. **(R336.1201(3))**
6. The permittee shall record each occurrence of abnormal functions by the automatic control system of the automatic urea feed injection system of the SCR and make the records available to AQD upon request<sup>2</sup>.  
**(R 336.1201(3), R 336.1213(3))**
7. The permittee shall keep records of the total amount of galvanized steel processed per month and make the records available to AQD upon request<sup>2</sup>. **(R 336.1201(3), R 336.1213(3))**
8. The permittee shall keep records of the total amount of galvanized steel processed on a 12-month rolling time period determined at the end of each calendar month and make the records available to AQD upon request<sup>2</sup>.  
**(R 336.1201(3), R 336.1213(3))**
9. The permittee shall keep records of the total amount of urea usage per day and make the records available to AQD upon request<sup>2</sup>. **(R 336.1201(3), R 336.1213(3))**
10. The permittee shall keep records of the water flow rate reading in the cross flow packed bed scrubber daily and make the records available to AQD upon request. Permittee shall take appropriate corrective action if flow rate is below minimum of 30 gallons per minute and shall keep records of corrective action taken<sup>2</sup>.  
**(R 336.1201(3), R 336.1213(3))**
11. The permittee shall keep records of the calibration and maintenance activities conducted on the automatic calibration equipment for the NO<sub>x</sub> and Oxygen Analyzers and make the records available to AQD upon request<sup>2</sup>. **(R 336.1201(3), R 336.1213(3), 40 CFR 64.7)**
12. The permittee shall keep records of the gallons of each oil applied in the rust preventive oil application electrostatic spray unit of the hot dip galvanizing line per month and make the records available to AQD upon request<sup>2</sup>.  
**(R 336.1201(3), R 336.1213(3))**
13. The permittee shall keep records of the VOC content of each oil applied in the rust preventive oil application electrostatic spray unit of the hot dip galvanizing line monthly and make the records available to AQD upon request<sup>2</sup>.  
**(R 336.1201(3), R 336.1213(3))**
14. The applicant shall keep a monthly record of the following concerning the use of the rust preventive oil application electrostatic spray unit of the hot dip galvanizing line:
  - a. The amount in gallons and VOC content of each oil applied.
  - b. VOC emission calculations determining the total mass emissions in tons per month based on a 12-month rolling time period as determined at the end of each calendar month in tons per year.<sup>2</sup>**(R 336.1205, R 336.1201(3), R 336.1213(3))**

15. The permittee shall monitor and record the monthly natural gas usage of the annealing furnace and the edge burners separately in a manner and with instrumentation acceptable to the AQD District Supervisor. Acceptable instrumentation and manner of recording are natural gas meters and total natural gas usage summary every end of the month recorded by the permittee<sup>2</sup>. **(R 336.1201(3))**
16. The permittee shall keep records of the total natural gas usage for the annealing furnace and edge burners based on the 12-month rolling time period as determined at the end of each calendar month and make the records available to AQD upon request<sup>2</sup>. **(R 336.1201(3), R 336.1213(3))**
17. The permittee shall keep records of monthly NO<sub>x</sub> emissions calculations for the annealing furnace and edge burners and make the records available to AQD upon request<sup>2</sup>. **(R 336.1201(3), R 336.1213(3))**
18. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
19. The permittee shall operate the monitoring device during all periods that the emission unit is operating. Data recorded during monitoring malfunctions, repair activities, and QA/QC operations shall not be used to determine 40 CFR Part 64 compliance. **(40 CFR 64.6(c)(3), 64.7(c))**
20. The permittee shall maintain records of all inspections and required remedial actions in conjunction with the OMP. **(AQD CO 1-2005)**
21. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
22. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendices 3-S1, 4-S1 and/or 7-S1**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

- Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCONGALVSCRBR	24 <sup>2</sup>	75 <sup>2</sup>	<b>R336.1201(3)</b>
2. SVCONGALVFNCE	60 <sup>2</sup>	130 <sup>2</sup>	<b>R336.1201(3)</b>

**IX. OTHER REQUIREMENT(S)**

- The permittee shall comply with all applicable requirements of 40 CFR Part 64. **(40 CFR Part 64)**
- If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUBLAST-FCE-A1-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

“A1” Blast Furnace consisting of the following:

1. “A1” Blast Furnace proper
2. Group of 3 stoves (“A1” BF Stoves) and a stack
3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack
4. Blast Furnace Gas (BFG) dust collector for removal of particulate from blast furnace gas generated by “A1” Blast Furnace
5. Clean gas safety valve(s)
6. Dirty gas safety valve(s)
7. Explosion valve
8. Slag pits
9. BFG flare system

**Flexible Group ID:** FGBLASTFURNACES-A1,B2,&D4-S1

**POLLUTION CONTROL EQUIPMENT**

Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.0075 grains per dry standard cubic foot <sup>2, a</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EUBLAST-FCE-A1-S1 Baghouse stack	V.6, VI.7&8	R 336.1331 R 336.1201(3)
2. Particulate Matter	0.01 grains per dry standard cubic foot	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-A1-S1 Baghouse stack	V.6, VI.7,8,&12	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.a
3. Visible emissions	10% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-A1-S1 Baghouse stack	V.1, VI.7&8	R 336.1361(1) R 336.1301(1)(c)
4. Visible emissions	20% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-A1-S1 Casthouse Roof monitors	V.2&3	R 336.1358(1) R 336.1301(1)(c)
5. Visible emissions	20% opacity	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-A1-S1 Secondary emissions exiting any opening	V.7	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.b

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Visible emissions	20% opacity, except for one 6-minute average per hour of not more than 27% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-A1-S1 Clean and dirty gas safety valves	V.4	R 336.1301(1)(a)

<sup>a</sup>In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined particulate matter limit shall be considered compliance with the limit established by **R 336.1331 and R 336.1201(3)** and also compliance with the limit in **SIP CO 27-1993** an additional applicable requirement that has been subsumed within this condition.

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUBLAST-FCE-A1-S1 unless the baghouse control system is installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1910)**
2. The permittee shall not simultaneously shut down more than one baghouse compartment while the furnace is casting<sup>2</sup>. **(R336.1910)**
3. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for "A1" Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following:
  - a. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dusts or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.
  - b. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - c. Operating limits for the "A1" Blast Furnace Casthouse Emission Control System. The permittee must establish the operating limits according to the following requirements:
    - (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
    - (ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.
    - (iii) Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a

description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why the parameter was chosen, a description of the method used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.

- d. Corrective action procedures for the "A1" Blast Furnace Casthouse Emission Control Baghouse. In the event a bag leak detection system alarm is triggered, corrective action must be initiated to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:
  - (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
  - (ii) Sealing off defective bags or filter media.
  - (iii) Replacing defective bags or filter media or otherwise repairing the control device.
  - (iv) Sealing off a defective baghouse compartment.
  - (v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
  - (vi) Shutting down the process producing the particulate emissions. **(40 CFR 63.7800(b), AQD CO 1-2005)**
4. The permittee must operate the casthouse emission control system for "A1" Blast Furnace at or above the lowest value or settings established for the operating limits in the operation and maintenance plan. **(40 CFR 63.7800(b), 40 CFR 63.7833(b)(1))**
5. The permittee shall develop site-specific monitoring plans for "A1" Blast Furnace Casthouse Emission Control Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**
  - a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
  - b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
  - c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
  - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
  - e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
  - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i); **(40 CFR 63.7831(a)(6))**
6. The permittee must install a CPMS according to the requirements in 40 CFR 63.7831(e) for the "A1" Blast Furnace Casthouse Emission Control System. **(40 CFR 63.7830(a))**
7. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data. **(40 CFR 63.7831(b)(1))**
8. The CPMS shall provide valid hourly data for at least 95 percent of every averaging period. **(40 CFR 63.7831(b)(2))**
9. The permittee shall operate and maintain a CPMS on the "A1" Blast Furnace Casthouse Emission Control System in continuous operation according to the plan required by 40 CFR 63.7831(a). **(40 CFR 63.7831(d))**
10. The permittee shall reduce hydrogen sulfide emissions generated at the blast furnace slag pits servicing casthouses A1, B2, and D4 by properly maintaining the hydrogen peroxide spray water quenching systems<sup>2</sup>. **(R336.1901(b), R336.1406(2))**

#### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

## **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct certified Method 9 visible emissions observations for the baghouse emission control stack of the EUBLAST-FCE-A1 at least once per month during blast furnace casting<sup>2</sup>. **(R336.1213(3), R336.1201(3), R336.1361(1))**
2. The permittee shall perform a non-certified visible emission observation for the casthouse roof monitors of the EUBLAST-FCE-A1 at least once a week during blast furnace casting. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time<sup>2</sup>. **(R336.1213(3), (R336.1201(3))**
3. The permittee shall conduct certified Method 9 visible emissions observations of the casthouse roof monitors of the EUBLAST-FCE-A1 at least once every two weeks during blast furnace casting<sup>2</sup>. **(R336.1213(3), R336.1201(3), R336.1581(1))**
4. The permittee shall perform a certified Method 9 visible emission observation of the EUBLAST-FCE-A1 dirty gas bleeders/safety valves during planned blast furnace start up or shut down. Additionally, the permittee shall record each occurrence of dirty gas bleeder stack opening, and the record shall include the date, start and stop time, and reason for each opening. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken including date, start time and stop time. **(R 336.1213(3))**
5. The permittee shall perform a Method 9 certified visible emission observation of EUBLAST-FCE-A1 stove stack at least once every month during operation. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**
6. The permittee shall conduct a performance test of the "A1" Blast Furnace Casthouse Emission Control System Baghouse for particulate matter (PM) emission no less frequently than once per permit term. Testing shall be performed using Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17 (Concentration of Particulate Matter - front half filterable catch only), or another AQD approved method. Each test run shall collect a minimum sample volume of 60 DSCF of gas and include an integral number of furnace tapping operations sufficient to obtain at least one hour of sampling per test run. A performance test shall include three valid test runs. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), 40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**
7. The permittee shall conduct a certified Method 9 performance test of the "A1" Blast Furnace Casthouse for visible emissions no less frequently than once per permit term. The visible emission performance testing shall overlap with performance testing for PM emissions required in V.6 and occur only while the furnace is being tapped. Tapping begins when the furnace is opened, usually by creating a hole near the bottom of the furnace, and ends when the hole is plugged. Each test shall consist of a minimum of 30 6-minute block averages. **40 CFR 63.7821(c), 40 CFR 63.7823(b) and (c), 40 CFR 63.7833(a)**
8. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a))**

- a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a). **(40 CFR 63.7824(a)(1))**
  - b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
  - c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**
  - d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**
9. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**
- a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
  - b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
  - c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

See Appendix 5-S1

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of baghouse compartment shutdowns and make the records available to AQD upon request<sup>2</sup>. **(R336.1201(3))**
2. The permittee shall keep a written record of each certified visible emission observation required by V.1. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall keep a written record of each non-certified visible emission observation required by V.2. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
4. The permittee shall keep a written record of each certified visible emission observation required by V.3. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
5. The permittee shall keep a written record of each certified visible emission observation required by V.4. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
6. The permittee shall keep a written record of each certified visible emission observation required by V.5. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**

7. The permittee shall conduct inspections of the A1 Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (vii) below. The permittee shall maintain records needed to document conformance with these requirements.
  - (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (iii) Check the compressed air supply for pulse-jet baghouses each day.
  - (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - (vi) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - (vii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3), CO No. 96-10, Section 5(i), Paragraph 2, 40 CFR 64.6(c)(1)(i and ii))**
8. The permittee shall install, operate and maintain a bag leak detection system to monitor the relative change in particulate matter loadings for the A1 Blast Furnace Casthouse Baghouse according to the requirements of 40 CFR 63.7831(f). **(40 CFR 63.7830(b)(1), 40 CFR 63.7831(f), 40 CFR 64.6(c)(1)(i and ii))**
9. The permittee shall record all information needed to document conformance of each bag leak detection system with applicable requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7833(c)(1))**
10. In the event of a bag leak detection alarm, The permittee shall maintain records of the time corrective action was initiated, the corrective actions taken, and date corrective action was completed. **(40 CFR 63.7833(c)(4))**
11. The permittee must determine and record the hourly average of all recorded readings from each CPMS required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(b)(3))**
12. The permittee shall collect, reduce and record any monitoring data for each of the operating limit parameters for each of the continuous parameter monitoring system (CPMS) for the "A1" Blast Furnace Casthouse Emission Control System Baghouse. **(40 CFR 63.7833(b)(2), 40 CFR 63.7842(d))**
13. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**
14. The permittee shall keep daily records of the operating status of the water flow system associated with the hydrogen peroxide spray water quench system at the A1 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
15. The permittee shall keep daily records of the operating status of the hydrogen peroxide additive system associated with the hydrogen peroxide spray water quench system at the A1 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
16. An excursion is a bag leak detection alarm or a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.7 and VI.8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUBLAST-FCE-A1-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**

17. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
18. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
19. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
20. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-"A"BLAST	129.3 <sup>2</sup>	68 <sup>2</sup>	40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
2. SV-"A"STOVE	120 <sup>2</sup>	250 <sup>2</sup>	<b>40 CFR 52.21(c) &amp; (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
2. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUBLAST-FCE-B2-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

“B2” Blast Furnace consisting of:

1. “B2” Blast Furnace proper
2. Group of 4 stoves (“B2” BF Stoves) and a stack
3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack
4. Blast Furnace Gas dust collector for removal of particulate from blast furnace gas generated by “B2” Blast Furnace
5. Clean gas safety valve(s)
6. Dirty gas safety valve(s)
7. Explosion valve
8. Slag pits
9. BFG Flare system

**Flexible Group ID:** FGBLASTFURNACES-A1,B2,&D4-S1

**POLLUTION CONTROL EQUIPMENT**

Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.0075 grains per dry standard cubic foot <sup>2</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EUBLAST-FCE-B2-S1 Baghouse stack	V.6, VI.7&8	R336.1331 R336.1201(3), MDEQ CO 1-2005
2. Particulate Matter	0.01 grains per dry standard cubic foot	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-B2-S1 Baghouse stack	V.6, VI.7,8&12	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.a
3. Visible emissions	10% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-B2-S1 Baghouse stack	V.1, V.6, VI.7&8	R336.1361(1) R336.1301(1)(c)
4. Visible emissions	20% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-B2-S1 Casthouse Roof monitor	V.2&V.3	R336.1358(1) R336.1301(1)(c)
5. Visible emissions	20% opacity	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-B2-S1 Secondary emissions exiting any opening	V.7	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.b

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Visible emissions	20% opacity, except for one 6-minute average per hour of not more than 27% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-B2-S1 Clean and Dirty gas safety valves	V.4	R336.1301(1)(a)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUBLAST-FCE-B2-S1 unless the baghouse control system is installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1910)**
2. The permittee shall not simultaneously shut down more than one baghouse compartment while the furnace is casting<sup>2</sup>. **(R336.1910)**
3. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for "B2" Blast Furnace Casthouse Emission Control Baggouse. Each plan must address the following:
  - a. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.
  - b. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - c. Operating limits for the "B2" Blast Furnace Casthouse Emission Control System. The permittee must establish the operating limits according to the following requirements:
    - (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
    - (ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.
    - (iii) Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why the parameter was chosen, a description of the method

- used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.
- d. Corrective action procedures for the "B2" Blast Furnace Casthouse Emission Control Baghouse. In the event a bag leak detection system alarm is triggered, corrective action must be initiated to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:
    - (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
    - (ii) Sealing off defective bags or filter media.
    - (iii) Replacing defective bags or filter media or otherwise repairing the control device.
    - (iv) Sealing off a defective baghouse compartment.
    - (v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
    - (vi) Shutting down the process producing the particulate emissions. **(40 CFR 63.7800(b), AQD CO 1-2005)**
  4. The permittee must operate the casthouse emission control system for "B2" Blast Furnace at or above the lowest value or settings established for the operating limits in the operation and maintenance plan. **(40 CFR 63.7800(b), 40 CFR 63.7833(b)(1))**
  5. The permittee shall develop site-specific monitoring plans for "B2" Blast Furnace Casthouse Emission Control Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**
    - a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
    - b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
    - c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
    - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
    - e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
    - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i); **(40 CFR 63.7831(a)(6))**
  6. The permittee must install a CPMS according to the requirements in 40 CFR 63.7831(e) for the "B2" Blast Furnace Casthouse Emission Control System. **(40 CFR 63.7830(a))**
  7. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data. **(40 CFR 63.7831(b)(1))**
  8. The CPMS shall provide valid hourly data for at least 95 percent of every averaging period. **(40 CFR 63.7831(b)(2))**
  9. The permittee shall operate and maintain a CPMS on the "B2" Blast Furnace Casthouse Emission Control System in continuous operation according to the plan required by 40 CFR 63.7831(a). **(40 CFR 63.7831(d))**
  10. The permittee shall reduce hydrogen sulfide emissions generated at the blast furnace slag pits servicing casthouses A, B, and D by properly maintaining the hydrogen peroxide spray water quenching systems<sup>2</sup>. **(R336.1901(b), R336.1406(2))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

## V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct certified Method 9 visible emissions observations for the baghouse emission control stack of the EUBLAST-FCE-B2 at least once per month during blast furnace casting<sup>2</sup>. **(R336.1213(3), R 336.1201(3))**
2. The permittee shall perform a non-certified visible emission observation for the casthouse roof monitors of the EUBLAST-FCE-B2 at least once a week during blast furnace casting. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time<sup>2</sup>. **(R336.1213(3), R 336.1201(3))**
3. The permittee shall conduct certified Method 9 visible emissions observations of the casthouse roof monitors of the EUBLAST-FCE-B2 at least once every two weeks during blast furnace casting<sup>2</sup>. **(R336.1213(3), R 336.1201(3))**
4. The permittee shall perform a certified Method 9 visible emission observation of the EUBLAST-FCE-B2 dirty gas bleeders/safety valves during planned blast furnace start up or shut down. Additionally, the permittee shall record each occurrence of dirty gas bleeder stack opening, and the record shall include the date, start and stop time, and reason for each opening. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken including date, start time and stop time. **(R 336.1213(3))**
5. The permittee shall perform a Method 9 certified visible emission observation of EUBLAST-FCE-B2 stove stack at least once every month during operation. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**
6. The permittee shall conduct a performance test of the "B2" Blast Furnace Casthouse Emission Control System Baghouse for particulate matter (PM) emission no less frequently than once per permit term. Testing shall be performed using Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17 (Concentration of Particulate Matter - front half filterable catch only), or another AQD approved method. Each test run shall collect a minimum sample volume of 60 DSCF of gas and include an integral number of furnace tapping operations sufficient to obtain at least one hour of sampling per test run. A performance test shall include three valid test runs. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), 40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**
7. The permittee shall conduct a certified Method 9 performance test of the "B2" Blast Furnace Casthouse for visible emissions no less frequently than once per permit term. The visible emission performance testing shall overlap with performance testing for PM emissions required in V.6 and occur only while the furnace is being tapped. Tapping begins when the furnace is opened, usually by creating a hole near the bottom of the furnace, and ends when the hole is plugged. Each test shall consist of a minimum of 30 6-minute block averages. **(40 CFR 63.7821(c), 40 CFR 63.7823(b) and (c), 40 CFR 63.7833(a))**
8. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a))**

- a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a). **(40 CFR 63.7824(a)(1))**
  - b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
  - c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**
  - d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**
9. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**
- a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
  - b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
  - c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

See Appendix 5-S1

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of baghouse compartment shutdowns and make the records available to AQD upon request<sup>2</sup>. **(R 336.1213(3), (R336.1201(3)))**
2. The permittee shall keep a written record of each certified visible emission observation required by V.1. The permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall keep a written record of each non-certified visible emission observation required by V.2. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
4. The permittee shall keep a written record of each certified visible emission observation required by V.3. The permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
5. The permittee shall keep a written record of each certified visible emission observation required by V.4. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
6. The permittee shall keep a written record of each certified visible emission observation required by V.5. Permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**

7. The permittee shall conduct inspections of the B2 Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (vii) below. The permittee shall maintain records needed to document conformance with these requirements.
  - (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (iii) Check the compressed air supply for pulse-jet baghouses each day.
  - (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - (vi) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - (vii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3))**
8. The permittee shall install, operate and maintain a bag leak detection system to monitor the relative change in particulate matter loadings for the B2 Blast Furnace Casthouse Baghouse according to the requirements of 40 CFR 63.7831(f). **(40 CFR 63.7830(b)(1), 40 CFR 63.7831(f))**
9. The permittee shall record all information needed to document conformance of each bag leak detection system with applicable requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7833(c)(1))**
10. In the event of a bag leak detection alarm, the permittee shall maintain records of the time corrective action was initiated, the corrective actions taken, and date corrective action was completed. **(40 CFR 63.7833(c)(4))**
11. The permittee must determine and record the hourly average of all recorded readings from each CPMS required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(b)(3))**
12. The permittee shall collect, reduce and record any monitoring data for each of the operating limit parameters for each of the continuous parameter monitoring system (CPMS) for the "B2" Blast Furnace Casthouse Emission Control System Baghouse. **(40 CFR 63.7833(b)(2), 40 CFR 63.7842(d))**
13. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**
14. The permittee shall keep daily records of the operating status of the water flow system associated with the hydrogen peroxide spray water quench system at B2 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
15. The permittee shall keep daily records of the operating status of the hydrogen peroxide additive system associated with the hydrogen peroxide spray water quench system at B2 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
16. An excursion is a bag leak detection alarm or a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.7 and VI.8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUBLAST-FCE-B2-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**

17. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
18. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
19. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
20. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-"B2"BLAST(BH)	120 <sup>2</sup>	73 <sup>2</sup>	40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
2. SV-"B2"STOVE	120 <sup>2</sup>	200 <sup>2</sup>	<b>40 CFR 52.21(c) &amp; (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
2. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUBLAST-FCE-D4-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

“D4” Blast Furnace consisting of:

1. “D4” Blast Furnace proper
2. Group of 3 stoves (“D4” BF Stoves) and a stack
3. Cast house emission control system (CECS) - a collection hood followed by a baghouse and stack
4. Blast Furnace Gas dust collector for removal of particulate from blast furnace gas generated by “D4” Blast Furnace
5. Clean gas safety valve(s)
6. Dirty gas safety valve(s)
7. Slag pits
8. BFG Flare System

**Flexible Group ID:** FGBLASTFURNACES-A1,B2,&D4-S1

**POLLUTION CONTROL EQUIPMENT**

Baghouse

**I. EMISSION LIMIT(S)**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Particulate Matter	0.0052 grains per dry standard cubic foot <sup>2</sup>	As determined through reference method 5D at R336.2013	EUBLAST-FCE-D4-S1 Baghouse stack	V.6, VI.7&8	<b>R 336.1331 R336.1201(3)</b>
2. Particulate Matter	0.01 grains per dry standard cubic foot	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-D4 Baghouse stack	V.6, VI.7,8&12	<b>40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.a</b>
3. Visible emissions	10% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-D4 Baghouse stack	V.1, VI.7&8	<b>R 336.1361(1) R336.1301(c)</b>
4. Visible emissions	20% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-D4 Roof monitor	V.2&3	<b>R 336.1358(1) R336.1301(c)</b>
5. Visible emissions	20% opacity	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EUBLAST-FCE-D4 Secondary emissions exiting any opening	V.7	<b>40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.7.b</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Visible emissions	20% opacity, except for one 6-minute average per hour of not more than 27% opacity <sup>2</sup>	6-minute average	EUBLAST-FCE-D4 Clean and Dirty gas safety valves	V.4	R 336.1301(1)(a)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EUBLAST-FCE-D4-S1 unless the baghouse control system is installed, maintained, and operated in a satisfactory manner<sup>2</sup>. **(R336.1910)**
2. The permittee shall not simultaneously shut down more than one baghouse compartment while the furnace is casting<sup>2</sup>. **(R336.1910)**
3. The permittee shall prepare and operate at all times according to a written operation and maintenance plans for "D4" Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following:
  - a. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.
  - b. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - c. Operating limits for the "D4" Blast Furnace Casthouse Emission Control System. The permittee must establish the operating limits according to the following requirements:
    - (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
    - (ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.
    - (iii) Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why the parameter was chosen, a description of the method

used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.

- d. Corrective action procedures for the "D4" Blast Furnace Casthouse Emission Control Baghouse. In the event a bag leak detection system alarm is triggered, corrective action must be initiated to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:
- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
  - (ii) Sealing off defective bags or filter media.
  - (iii) Replacing defective bags or filter media or otherwise repairing the control device.
  - (iv) Sealing off a defective baghouse compartment.
  - (v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
  - (vi) Shutting down the process producing the particulate emissions.

**(40 CFR 63.7800(b), AQD CO 1-2005)**

4. The permittee must operate the casthouse emission control system for "D4" Blast Furnace at or above the lowest value or settings established for the operating limits in the operation and maintenance plan.  
**(40 CFR 63.7800(b), 40 CFR 63.7833(b)(1))**
5. The permittee shall develop site-specific monitoring plans for "D4" Blast Furnace Casthouse Emission Control Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**
- a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
  - b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
  - c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
  - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
  - e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
  - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i); **(40 CFR 63.7831(a)(6))**
6. The permittee must install a CPMS according to the requirements in 40 CFR 63.7831(e) for the "D4" Blast Furnace Casthouse Emission Control System. **(40 CFR 63.7830(a))**
7. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data.  
**(40 CFR 63.7831(b)(1))**
8. The CPMS shall provide valid hourly data for at least 95 percent of every averaging period.  
**(40 CFR 63.7831(b)(2))**
9. The permittee shall operate and maintain a CPMS on the "D4" Blast Furnace Casthouse Emission Control System in continuous operation according to the plan required by 40 CFR 63.7831(a).  
**(40 CFR 63.7831(d))**
10. The permittee shall reduce hydrogen sulfide emissions generated at the blast furnace slag pits servicing casthouses A, B, and D by properly maintaining the hydrogen peroxide spray water quenching systems<sup>2</sup>.  
**(R336.1901(b), R336.1406(2))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

## V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct certified Method 9 visible emissions observations for the baghouse emission control stack of the EUBLAST-FCE-D4 at least once per month<sup>2</sup>. **(R336.1213(3), R336.1201(3))**
2. The permittee shall perform a non-certified visible emission observation for the casthouse roof monitors of the EUBLAST-FCE-D4 at least once a week during blast furnace casting. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time<sup>2</sup>. **(R336.1213(3), R 336.1201(3))**
3. The permittee shall conduct certified Method 9 visible emissions observations of the casthouse roof monitors of the EU-"D4" BLAST at least once every two weeks<sup>2</sup>. **(R336.1213(3), R336.1201(3))**
4. The permittee shall perform a certified Method 9 visible emission observation of the EUBLAST-FCE-D4 dirty gas bleeders during planned blast furnace start up or shut down. Additionally, the permittee shall record each occurrence of dirty gas bleeder stack opening, and the record shall include the date, start and stop time, and reason for each opening. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken including date, start time and stop time. **(R 336.1213(3))**
5. The permittee shall perform a Method 9 certified visible emission observation of EUBLAST-FCE-D4 stove stack at least once every month during operation. The permittee shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**
6. The permittee shall conduct a performance test of the "D4" Blast Furnace Casthouse Emission Control System Baghouse for particulate matter (PM) emission no less frequently than once per permit term. Testing shall be performed using Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17 (Concentration of Particulate Matter - front half filterable catch only), on another AQD approved method. Each test run shall collect a minimum sample volume of 60 DSCF of gas and include an integral number of furnace tapping operations sufficient to obtain at least one hour of sampling per test run. A performance test shall include three valid test runs. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test **(R336.1213(3), 40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**
7. The permittee shall conduct a certified Method 9 performance test of the "D4" Blast Furnace Casthouse for visible emissions no less frequently than once per permit term. The visible emission performance testing shall overlap with performance testing for PM emissions required in V.6 and occur only while the furnace is being tapped. Tapping begins when the furnace is opened, usually by creating a hole near the bottom of the furnace, and ends when the hole is plugged. Each test shall consist of a minimum of 30 6-minute block averages. **(40 CFR 63.7821(c), 40 CFR 63.7823(b) and (c), 40 CFR 63.7833(a))**
8. The permittee shall certify that the baghouse capture system operated during the performance test at the site-specific operating limits established in the operation and maintenance plan using the following procedures: **(40 CFR 63.7824(a))**
  - a. Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in the capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a). **(40 CFR 63.7824(a)(1))**

- b. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position shall be visually checked and recorded at the beginning and end of each opacity observation period segment. **(40 CFR 63.7824(a)(2))**
  - c. Review and record the monitoring data and identify and explain any times the capture system operated outside the applicable operating limits. **(40 CFR 63.7824(a)(3))**
  - d. Certify in the performance test report that during all observation period segments, the capture system was operating at the values or settings established in the capture system operation and maintenance plan. **(40 CFR 63.7824(a)(4))**
9. The permittee may change the operating limits for the baghouse capture system if the following requirements are met: **(40 CFR 63.7824(c))**
- a. Submit a written notification to the Administrator requesting to conduct a new performance test to revise the operating limit. **(40 CFR 63.7824(c)(1))**
  - b. Conduct a performance test to demonstrate compliance with the applicable operating limitation. **(40 CFR 63.7824(c)(2))**
  - c. Establish revised operating limits according to the applicable procedures in 40 CFR 63.7824, paragraphs (a) through (c) for a capture system. **(40 CFR 63.7824(c)(3))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of baghouse compartment shutdowns and make the records available to AQD upon request<sup>2</sup>. **(R 336.1213(3), R336.1201(3))**
2. The permittee shall keep a written record of each certified visible emission observation required by V.1. Permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall keep a written record of each non-certified visible emission observation required by V.2. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
4. The permittee shall keep a written record of each certified visible emission observation required by V.3. The permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
5. The permittee shall keep a written record of each certified visible emission observation required by V.4. Permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
6. The permittee shall keep a written record of each certified visible emission observation required by V.5. Permittee shall initiate appropriate corrective action if visible emissions exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
7. The permittee shall conduct inspections of the D4 Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (viii) below. The permittee shall maintain records needed to document conformance with these requirements.

- a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - c. Check the compressed air supply for pulse-jet baghouses each day.
  - d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - f. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - g. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3))**
8. The permittee shall install, operate and maintain a bag leak detection system to monitor the relative change in particulate matter loadings for the D4 Blast Furnace Casthouse Baghouse according to the requirements of 40 CFR 63.7831(f). **(40 CFR 63.7830(b)(1), 40 CFR 63.7831(f))**
  9. The permittee shall record all information needed to document conformance of each bag leak detection system with applicable requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7833(c)(1))**
  10. In the event of a bag leak detection alarm, The permittee shall maintain records of the time corrective action was initiated, the corrective actions taken, and date corrective action was completed. **(40 CFR 63.7833(c)(4))**
  11. The permittee must determine and record the hourly average of all recorded readings from each CPMS required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(b)(3))**
  12. The permittee shall collect, reduce and record any monitoring data for each of the operating limit parameters for each of the continuous parameter monitoring system (CPMS) for the "D4" Blast Furnace Casthouse Emission Control System Baghouse. **(40 CFR 63.7833(b)(2), 40 CFR 63.7842(d))**
  13. The permittee shall operate the baghouse capture system at or above the lowest value or settings established for the operating limits in the operation and maintenance plan and collect, reduce, and record the monitoring data for each of the operating limit parameters. **(40 CFR 63.7833(b))**
  14. The permittee shall keep daily records of the operating status of the water flow system associated with the hydrogen peroxide spray water quench system at D4 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
  15. The permittee shall keep daily records of the operating status of the hydrogen peroxide additive system associated with the hydrogen peroxide spray water quench system at D4 blast furnace slag pit and make the records available to AQD upon request. **(R336.1213(3))**
  16. An excursion is a bag leak detection alarm or a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.7 and VI.8. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUBLAST-FCE-B2-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
  17. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**

18. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
19. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
20. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-"D4"BLAST(BH)	130 <sup>2</sup>	68 <sup>2</sup>	40 CFR 52.21(c) & (d)
2. SV-"D4"STOVE	120 <sup>2</sup>	230 <sup>2</sup>	40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
2. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUBF-COOLING-TWR-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Blast Furnace Cooling Tower

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Ammonia	1.05 grams per second <sup>1</sup>	As determined through cooling water sampling	EUBF-COOLING-TWR-S1	V.1, VI.1	R336.1225, R336.1201(3)
2. Ammonia	8.34 pounds per hour <sup>1</sup>	As determined through cooling water sampling	EUBF-COOLING-TWR-S1	V.1, VI.1	R336.1225, R336.1201(3)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- The permittee shall conduct testing to determine the ammonia concentration in the cooling tower water during process operation using an approved method once a year or more frequently upon the request of AQD. (R336.1213(3))

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- The permittee shall record the total hours of operation per day for the cooling tower and make the records available to AQD upon request. (R336.1213(3))

- The permittee shall keep records of calculation of ammonia emission once a year based on the results of annual analytical tests conducted as required under V.1. **(R336.1213(3))**

See Appendix 4-S1

**VII. REPORTING**

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU2BOP-HMTDESULF-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

No. 2 Basic Oxygen Process - Hot Metal Transfer and Desulfurization Operations, including:

1. Two hot metal transfer operations
2. Two desulfurization/slag skimming operations
3. No. 2 BOP Shop No. 2 Baghouse

**Flexible Group ID:** FG2BOP-SHOP

**POLLUTION CONTROL EQUIPMENT**

No. 2 Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.0029 grains per dry standard cubic foot of exhaust air <sup>2</sup>	As determined through reference method 5D at R336.2013	EU2BOP-HMTDESULF-S1 Baghouse stack	V.5, VI.5&6	R336.1201(3)
2. Particulate matter	0.01 grains per dry standard cubic foot	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EU2BOP-HMTDESULF-S1 Baghouse stack	V.5, VI.5&6	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.10
3. Particulate Matter	4.65 pounds per hour <sup>2</sup>	As determined through reference method 5D at R336.2013	EU2BOP-HMTDESULF-S1 Baghouse stack	V.5, VI.5&6	R336.1201(3)
4. Particulate Matter	20.38 tons per year <sup>2</sup>	Calendar Year	EU2BOP-HMTDESULF-S1 Baghouse stack	V.5, VI.5&6	R336.1201(3)
5. Particulate Matter	2.482 pounds per heat on a calendar day basis	Calendar day basis	EU2BOP-HMTDESULF-S1 Baghouse stack	V.5, VI.5&6	SIP CO No. 27-1993, Exhibit B, Paragraph 3

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. Visible emissions	5% opacity	3-minute average	EU2BOP-HMTDESULF-S1 Baghouse stack (Subpart Na applies only during slag skimming at desulfurization)	V.1&2, VI.5&6	R336.1201(3), R336.2032, 40 CFR, Part 60, Subpart Na, 60.142a(a)(3)
7. Visible emissions	20% opacity <sup>2</sup>	3-minute average	EU2BOP-HMTDESULF-S1 Baghouse stack	V.1&2, VI.5&6	R336.1365(1), R336.1366(1),
8. Visible emissions	10% opacity except for an opacity greater than 10 percent but less than 20 percent once per steel production cycle	3-minute average	No. 2 BOP shop roof monitor due to slag skimming operations	V.3&4, VI.5,6,10	R336.1201(3), R336.2032, 40 CFR, Part 60, Subpart Na, 60.142a(a)(1)
9. Visible emissions	20% opacity <sup>2</sup>	3-minute average	Fugitive emissions from No. 2 BOP shop building or enclosure due to hot metal transfer operations	V.3&4, VI.5&6	R336.1365(2), R336.2032
10. Visible emissions	20% opacity <sup>2</sup>	3-minute average	Fugitive emissions from No. 2 BOP shop building or enclosure due to desulfurization operations	V.3&4, VI.5&6	R336.1366(2), R336.2032

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron	4,106,250 tons per year (based on a production rate of 250 tons of iron per heat) <sup>2</sup>	Yearly	EU2BOP-HMTDESULF-S1	VI.2	R336.1201(3)
2. Iron	16,425 heats Per year (based on a production rate of 250 tons of iron per heat) <sup>2</sup>	Yearly	EU2BOP-HMTDESULF-S1	VI.1	R336.1201(3)

### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall install, calibrate, operate and maintain a monitoring device that continually measures and records for each steel production cycle, the various rates or levels of exhaust ventilation at each phase of the cycle through the ducts of the secondary emission capture system controlling the skimming stations. The monitoring device or devices are to be placed at locations near each capture point of the secondary emission capture system to monitor the exhaust ventilation rates or levels adequately, or in alternative locations approved in advance by AQD District Supervisor. **(40 CFR 60.143a(a))**
2. The permittee shall not perform the hot metal operations unless the baghouse dust collector is installed and operating properly<sup>2</sup>. **(R336.1910, R336.1201(3))**
3. The permittee shall not operate the hot metal transfer station and two hot metal desulfurization/skimming stations simultaneously<sup>2</sup>. **(R336.1201(3))**
4. The permittee shall implement and maintain the approved Malfunction Abatement Plan for the No. 2 BOP No. 2 Baghouse. Alternate formats or revisions to the approved Plan must be approved by the AQD Detroit District Supervisor<sup>2</sup>. **(CO No. 96-10, Section 5e, Paragraph 1(b)), R336.1911**
5. Permittee shall implement an Operation and Maintenance Plan (OMP) for the No.2 BOP No.2 Baghouse which shall include the following elements:
  - a. Monthly inspections for the proper operation of all pressure sensors dampers and dampers switches
  - b. Monthly inspections of the integrity of ductwork hoods and fan housings
  - c. A requirement to repair any defect that could reasonably be expected to result in non compliance identified during any inspection within 30 days. Any repair anticipated to extend beyond 30 days shall require a compliance plan be submitted to the AQD Detroit Office Supervisor for approval. The compliance plan shall include details of activities necessary to bring the facility into compliance with corresponding milestone dates included
  - d. Preventative maintenance for each control device **(AQD CO 1-2005, Paragraph B.2)**

### IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform non-certified visible emission observation of the No. 2 BOP No. 2 Baghouse stack at least once a week during the hot metal transfer and desulfurization operations including slag skimming. If visible emissions are observed, a Method 9C certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform certified Method 9C visible emission observations of the No. 2 BOP No. 2 Baghouse stack at least once a month during the hot metal transfer and desulfurization operations including slag skimming. **(R336.1213(3))**
3. The permittee shall perform non-certified visible emission observation of the No. 2 BOP building section containing the hot metal transfer operations and the desulfurization operations, including the roof monitor, for fugitive emissions at least once a week during the hot metal transfer and desulfurization operations. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. **(R336.1213(3))**

4. The permittee shall perform certified Method 9C visible emission observations of the No. 2 BOP building section containing the hot metal transfer operations and the desulfurization operations for fugitive emissions at least once a month during the hot metal transfer and desulfurization operations. **(R336.1213(3))**
5. The permittee shall conduct a performance test of the No. 2 BOP No. 2 baghouse for particulate matter (PM) emission no less frequently than once per permit term. Performance testing shall be performed using Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17 (Concentration of Particulate Matter - front half filterable catch only), or another AQD approved method. Each test run shall collect a minimum sample volume of 60 DSCF of gas and occur over the steel production cycle. A performance test shall include three valid test runs. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test **(R336.1213(3)) (40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the total number of heats based on a monthly and 12-month rolling time period as determined at the end of each calendar month and make the records available to AQD upon request. **(R336.1213(3))**
2. The permittee shall keep records of the total amount of iron processed based on a monthly and 12-month rolling time period as determined at the end of each calendar month and make the records available to AQD upon request. **(R336.1213(3))**
3. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
4. The permittee shall keep a written record of each certified visible emission observation required by V.2. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
5. The permittee shall conduct inspections of the No. 2 BOP No. 2 Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (viii) below. The permittee shall maintain records needed to document conformance with these requirements.
  - (i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - (ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - (iii) Check the compressed air supply for pulse-jet baghouses each day.
  - (iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - (v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - (vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

- (vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - (viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3), 40 CFR 64.6(c)(1)(i and ii))**
6. The permittee shall install, operate and maintain a bag leak detection system to monitor the relative change in particulate matter loadings for the No. 2 BOP No. 2 Baghouse according to the requirements of 40 CFR 63.7831(f). **(40 CFR 63.7830(b)(1), 40 CFR 63.7831(f), 40 CFR 64.6(c)(1)(i and ii))**
  7. The permittee shall record all information needed to document conformance of each bag leak detection system with applicable requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7833(c)(1))**
  8. In the event of a bag leak detection alarm, the permittee shall maintain records of the time corrective action was initiated, the corrective actions taken, and date corrective action was completed. **(40 CFR 63.7833(c)(4))**
  9. The permittee must determine and record the hourly average of all recorded readings from each CPMS required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(b)(3))**
  10. Each owner or operator of an affected facility shall install, calibrate, operate, and maintain a monitoring device that continually measures and records for each steel production cycle the various rates or levels of exhaust ventilation at each phase of the cycle through each duct of the secondary emission capture system. The monitoring device or devices are to be placed at locations near each capture point of the secondary emission capture system to monitor the exhaust ventilation rates or levels adequately, or in alternative locations approved in advance by the Administrator. **(40 CFR 60.143a(a))**
  11. If a chart recorder is used, the owner or operator shall use chart recorders that are operated at a minimum chart speed of 3.8 cm/hr (1.5 in./hr). **(40 CFR 60.143a(b))**
  12. All monitoring devices required by paragraph (a) of this section are to be certified by the manufacturer to be accurate to within  $\pm 10$  percent compared to Method 2 of appendix A of this part. The owner or operator shall recalibrate and check the device(s) annually and at other times as the Administrator may require, in accordance with the written instructions of the manufacturer and by comparing the device against Method 2. **(40 CFR 60.143a(c))**
  13. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
  14. An excursion is a bag leak detection alarm or a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.5 and VI.6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EU2BOP-HMTDESULF (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
  15. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
  16. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
  17. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**

18. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendix 4-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each owner or operator subject to the requirements of paragraph (a) of this section shall report on a semiannual basis all measurements of exhaust ventilation rates or levels over any 3-hour period that average more than 10 percent below the average rates or levels of exhaust ventilation maintained during the most recent performance test conducted under §60.8 in which the affected facility demonstrated compliance with the standard under §60.142a(a)(2). The accuracy of the respective measurements, not to exceed the values specified in paragraph (c) of this section, may be considered when determining the measurement results that must be reported. **(40 CFR 60.143a(d))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOP-2-BGHSE	114 <sup>2</sup>	90 <sup>2</sup>	R336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU2BOF-VESSELS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Basic Oxygen Furnace Vessels operations, including two Basic Oxygen Process Vessels (BOP Vessels No. 25 and No. 26) and primary emission control system including an electrostatic precipitator and ancillary equipment.

**Flexible Group ID:** FG2BOP-SHOP-S1

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitator (ESP)

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	0.057 pounds per 1,000 pounds dry gas <sup>2,a</sup>	As determined through reference method 5D at R336.2013	EU2BOF-VESSELS-S1 BOP ESP stack	V.2	R336.1331, Table 31, Section C(1)(A)
2. Particulate Matter	0.02 grains per dry standard cubic foot (during the steel production cycle)	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EU2BOF-VESSELS-S1 BOP ESP stack	V.3	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.9.b
3. Visible Emissions	20% Opacity	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	EU2BOF-VESSELS-S1 Secondary emissions that exit any opening in the BOPF shop, including the roof monitor	V.4	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.12
4. Visible emissions	10% opacity, as a trigger for corrective action	Hourly average	EU2BOF-VESSELS-S1 BOP ESP stack	V1.2,3&4	40 CFR 63.7790(b)(3)
5. Visible emissions	20% opacity, except for one 6-minute average per hour of not more than 27% opacity <sup>2</sup>	6 minute average	EU2BOF-VESSELS-S1 BOP ESP stack	V.1, VI.2	R336.1301, AQD CO 1-2005

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
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<sup>a</sup>In accordance with Rule 213(2) and Rule 213(6), compliance with this streamlined particulate matter limit shall be considered compliance with the limit established by **R336.1331, Table 31, Section C(1)(A)** and also compliance with the particulate limit from **R336.1201(3)**, an additional applicable requirement that has been subsumed within this condition.

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate the Basic Oxygen Furnaces (BOFs) controlled by an electrostatic precipitator control system unless each transformer-rectifier set of the electrostatic precipitator is equipped with an automatic control system (microprocessor controls) approved by the AQD District Supervisor. **(R336.1330(1))**
2. Each automatic controller shall be set to provide maximum power, or optimal power if operating in a sparking mode, from its respective transformer-rectifier set. **(R336.1330(1))**
3. The permittee shall not operate the two main basic oxygen process vessels (BOP Vessels / BOF No. 25 and BOF No. 26) unless the electrostatic precipitator (ESP) is installed and operating properly<sup>2</sup>. **(R336.1910)**
4. The permittee shall maintain an average primary blowrate at the No. 2 BOP, depending upon the number of operating fields in the electrostatic precipitator as follows:

Number of Fields	Average Primary Blowrate
24	21,000 scfm
23	20,000 scfm
20 - 22	18,000 scfm

**(CO No. 96-10, Section 5g, Paragraph 4, R336.1910)**

5. In the event that the permittee conducts stack testing which supports a higher or lower blow rate, the Title V Permit shall be modified by a minor permit amendment to reflect the modified blowrates<sup>2</sup>. **(CO No. 96-10, Section 5, Sub Section g, Paragraph 5, R336.1910)**
6. The permittee shall operate and maintain the Water Spray Wands for No. 25 Furnace<sup>2</sup>. **(CO No. 35-97, Section F, Paragraph 28, R336.1910)**
7. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for the No. 2 BOP Electrostatic Precipitator. Each plan must address the following:
  - a. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.

- b. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- c. Operating limits for each capture system applied to emissions from the basic oxygen furnaces. The permittee must establish the operating limits according to the following requirements:
  - (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
  - (ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.
  - (iii) Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why the parameter was chosen, a description of the method used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.
- d. Corrective action procedures for the No. 2 BOP electrostatic precipitator. In the event the electrostatic precipitator exceeds the operating limit in I.4, corrective actions consistent with the site-specific monitoring plan must be taken in accordance with 40 CFR 63.7831(a).

**(40 CFR 63.7800(b), AQD CO 1-2005)**

8. The permittee shall develop a site-specific monitoring plan for the No. 2 BOP Electrostatic Precipitator and make the plan available to the permitting authority upon request. The plan shall contain the following information:
- (40 CFR 63.7831(a))**
- a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
  - b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
  - c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
  - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
  - e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
  - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i); **(40 CFR 63.7831(a)(6))**
  - g. Corrective action procedures in the event the electrostatic precipitator exceeds the visible emission limitation in I.4 **(40 CFR 63.7831(a)(8))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

- 1. The permittee shall perform a certified Method 9 visible emission observation of the ESP stack for a minimum of one hour, which shall include one complete steel production cycle, at least once per month, using an independent certified Method 9 observer. The permittee shall provide, on a monthly basis, to the AQD Detroit

Office Supervisor, in writing, a schedule of the date, approximate time, and place of the planned Method 9 opacity observations, and who shall conduct them. The date and time will be subject to change based on operating schedules, weather conditions, or other unforeseen conditions. The permittee shall also submit the results of the Method 9 observations to the AQD Detroit Office Supervisor on a monthly basis **(R336.1213(3), AQD CO 1-2005)**

2. The permittee shall conduct a particulate emission test of the No. 2 BOP ESP during operation at least twice per permit term or more frequently upon the request of AQD. Particulate matter emission testing shall be performed using Reference Method 5D or other approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall conduct a performance test of the No. 2 BOP ESP for particulate matter (PM) emissions no less frequently than twice per permit term. Testing shall be performed in accordance with Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17, as applicable, (concentration of particulate matter - front half filterable catch only), or another AQD approved method and shall occur only when the processes being controlled are in operation. Each test run shall collect a minimum sample volume of 60 DSCF of gas and three valid test runs are needed to comprise a performance test. Sample only during the steel production cycle. Conduct sampling under conditions that are representative of normal operation. Record the start and end time of each steel production cycle and each period of abnormal operation. Sample for an integral number of steel production cycles. The steel production cycle begins when the scrap is charged to the furnace and ends 3 minutes after the slag is emptied from the vessel into the slag pot. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(c), 40 CFR 63.7822, 40 CFR 63.7833(a))**
4. The permittee shall conduct performance tests of the No. 2 BOP Shop roof monitor and any opening in the No.2 BOP shop for visible emissions no less frequently than once per permit term. The visible emission performance testing shall overlap with performance testing for PM emissions from the ESP and shall include at least three steel production cycles. The steel production cycle begins when the scrap is charged to the furnace and ends three minutes after the slag is emptied from the vessel into the slag pot. Visible emissions shall be determined by a certified reader using Reference Method 9 with the following exceptions:
  - a. Instead of the procedures in section 2.4 of Method 9 in appendix A to 40 CFR Part 60, The permittee shall record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles.
  - b. Instead of the procedures in section 2.5 of Method 9 in appendix A to 40 CFR Part 60, The permittee shall determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.**(40 CFR 63.7821(c), 40 CFR 63.7823(b) and (d)(1), 40 CFR 63.7833(a))**
5. The permittee shall perform a performance evaluation for the No. 2 BOP electrostatic precipitator COMS according to 40 CFR 63.8 and Performance Specification 1 in 40 CFR 60, Appendix B. **(40 CFR 63.7831(h)(2))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep a written record of each certified visible emission observation required by V.1. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
2. The permittee shall calibrate, operate and maintain the continuous opacity monitor in the No. 2 BOP Electrostatic Precipitator System in accordance set forth in 40 CFR 60.13 and Performance Specification 1 (PS1) of Appendix B, 40 CFR 60. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.  
**(CO No. 96-10, Section 5c, Paragraph 1, CO No. 0035-97, Section G32, Paragraph b, R336.2150)**
3. The permittee shall inspect and clean the opacity monitor a minimum of once every two months.  
**(CO No. 96-10, Section 5c, Paragraph 2, R336.1213(3))**
4. The permittee shall calibrate the opacity monitor a minimum of twice a year and recertify the opacity monitor a minimum of once per year. **(CO No. 96-10, Section 5c, Paragraph 3, R336.1213(3))**
5. The permittee shall perform an annual audit of the continuous opacity monitor using procedures set forth in USEPA publication No. 450/4-92-010, "Performance Audit Procedures for Opacity Monitors", as amended.  
**(CO No. 0035-97, Section G32, Paragraph b, R336.1213(3))**
6. The permittee shall record and keep on file written or electronic records of the readings from the opacity monitor. **(CO No. 96-10, Section 5c, Paragraph 4, R336.1213(3))**
7. The permittee shall keep on file the following by date and activity: all cleaning, inspection, calibration and certification performed on the No. 2 BOP ESP Opacity Monitor.  
**(CO No. 96-10, Section 5c, Paragraph 5, R336.1213(3))**
8. The permittee shall keep records of the results of annual audits of the continuous opacity monitor.  
**(CO No. 0035-97, Section G32, Paragraph b, R336.1213(3))**
9. The permittee shall keep records of all monitoring data and calibrations and certifications performed on the continuous opacity monitor. **(CO No. 0035-97, Section G32, Paragraph c, R336.1213(3))**
10. The permittee shall install, operate and maintain a continuous opacity monitoring system (COMS) according to the requirements of 40 CFR 63.7831(h) on the No. 2 BOP electrostatic precipitator stack. **(40 CFR 63.7830(d), 40 CFR 63.7831(h))**
11. The permittee shall monitor the hourly average opacity of emissions exiting the No. 2 BOP electrostatic precipitator stack according to 40 CFR 63.7832. **(40 CFR 63.7830(d))**
12. The COMS for the No. 2 BOP electrostatic precipitator shall be installed, operated, and maintained according to Performance Specification 1 in 40 CFR 60, Appendix B. **(40 CFR 63.7831(h)(1))**
13. The COMS for the No. 2 BOP electrostatic precipitator must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. **(40 CFR 63.7831(h)(3))**
14. No. 2 BOP electrostatic precipitator COMS data must be reduced to 6-minute averages as specified in §63.8(g)(2) and to hourly averages where required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(h)(4))**
15. In the event the hourly average opacity for the No. 2 BOP electrostatic precipitator exceeds the limit in I.4 the permittee shall initiate corrective action to determine the cause for the exceedance within 1 hour. During any period of corrective action, you must continue to monitor and record all required operating parameters for

equipment that remains in operation. Within 24 hours of the exceedance, you must measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken.

**(40 CFR 63.7833(g)(1))**

16. During any period of corrective action initiated in response to the hourly average opacity for an electrostatic precipitator exceeding the limit in I.4 under VI.17 and VI.18 permittee shall continue to monitor and record all required operating parameters for equipment that remains in operation. Within 24 hours of the exceedance, you must measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

**(40 CFR 63.7833(g)(1))**

17. In the event the corrective action initiated under VI.16 is unsuccessful, permittee shall initiate additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24-hour period, you must again measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with applicable operating limit.

**(40 CFR 63.7833(g)(2))**

18. In the event the second corrective action period specified in VI.17 is implemented, after 24 hours the permittee shall measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

**(40 CFR 63.7833(g)(2))**

19. During corrective actions initiated under VI.16 and VI.17 visible emission observations in accordance with Method 9 may be used to evaluate the effectiveness of the corrective actions.

**(40 CFR 63.7833(g)(3))**

20. During corrective actions initiated under VI.16 or VI.17 the permittee shall record the following:
- All information needed to document conformance with the corrective action requirements of 40 CFR Part 63, Subpart FFFFF, including the time corrective actions were initiated.
  - The corrective actions taken within the first 24 hour period.
  - Whether the efforts during the first 24 hour period were successful.
  - The corrective actions taken during the second 24 hour period
  - Whether the efforts during the second 24 hour period were successful.

**(40 CFR 63.7834(a)(4))**

21. The permittee shall keep the following records related to the No. 2 BOP electrostatic precipitator stack COMS:
- Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
  - Monitoring data for performance evaluations as required in 40 CFR 63.6(h)(7)(i) and (ii).
  - Previous versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
  - Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

**(40 CFR 63.7842(b))**

**See Appendix 4-S1**

## **VII. REPORTING**

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If corrective actions related to visible emissions from the No. 2 BOP electrostatic precipitator stack are initiated under VI.16 and VI.17 and the results of the second corrective action period are not successful, The permittee shall report the exceedances as a deviation on the next semiannual report according to 40 CFR 63.7841(b). **(40 CFR 63.7833(g)(4))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain a current copy of the operation and maintenance plan required under III.7 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
2. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU80MILLFURNCS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

80" Hot strip mill including five natural gas and coke oven gas-fired steel slab reheat ovens.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	20% opacity except for one 6-minute average per hour of not more than 27% opacity <sup>2</sup>	6-minute average	EU80MILLFURNCS-S1	V.1	R336.1301(1)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

- The permittee shall perform a certified Method 9 visible emission observation of the 80" Mill furnaces roof monitor for a minimum of 1 hour at least twice a year during steel slab reheating activities. (R336.1213(3))

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall monitor and record the natural gas usage by the reheat furnaces for the entire ozone season. **(R336.1213(3))**
2. The permittee shall monitor and record coke oven gas usage by the reheat furnaces for the entire ozone season. **(R336.1213(3))**
3. The permittee shall monitor and record the total operating time of the Hot Strip Mill during the ozone season. **(R336.1213(3))**
4. The permittee shall calculate NO<sub>x</sub> emissions during the ozone season using the appropriate emission factors. **(R336.1213(3))**
5. The permittee shall keep a written record of each certified visible emission observation required by V.1. The permittee shall initiate appropriate corrective action upon observation of visible emissions exceeding the applicable visible emission limits during the certified visible emission observations required by V. 1. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**

**See Appendices 3-S1, 4-S1 and/or 7-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit a summary report within 60 days after the end of each ozone season. The report shall include the following information:
  - a. The date, time, magnitude of emissions, and emission rates where applicable, of the Hot Strip Mill
  - b. If emissions or emission rates exceed the emissions or rates allowed for in the ozone control period by the applicable emission limit, the cause, if known, and any corrective action taken.
  - c. The total operating time of the Hot Strip Mill during the ozone control period.**((R336.1801(12), R336.1213(3))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall implement the NO<sub>x</sub> control program to ensure proper operation and proper combustion in each of the five reheat furnaces at the Hot Strip Mill as submitted under Michigan Rule 801 Reasonably Available Control Technology (RACT) for Oxides of Nitrogen from Emission Sources at USSC-GLW.  
**(R336.1801)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU2BOP-FLUX-SYS-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

The Flux System Operations include the flux (lime) material handling and ancillary equipment.

**Flexible Group ID:** FG2BOP-SHOP

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	20% opacity	3-minute average <sup>a</sup>	Fugitive dust from any source other than any road, lot, storage pile, or material handling activity at a storage pile	V.1&2, VI.1	<b>Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)</b>
2. Fugitive Dust	5% opacity	3-minute average <sup>a,b</sup>	Fugitive dust from any road, lot, storage pile, or material handling activity at a storage pile	V.1&2, VI.1	<b>Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)</b>

<sup>a</sup>in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

<sup>b</sup>The provisions of this subsection shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour (40.2 kilometers per hour).

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- The permittee shall implement a BOF Lime Handling System Equipment Inspection Plan to inspect the specified components of the BOF Lime Handling System in accordance with the schedule in Appendix A of CO No. 96-10. This Plan shall be revised as appropriate, and alternate formats or revisions to the Plan must be approved by the AQD Detroit District Supervisor. **(CO No. 96-10, Section 5d, Paragraph 2, R336.1213(3))**

2. The permittee shall implement and maintain Standard Maintenance Procedures (SMPs) for the specified components of the BOF Lime Handling System in accordance with Appendix B of CO No. 96-10. These Procedures shall be revised as appropriate, and alternate formats or revisions to the Procedures must be approved by the AQD District Supervisor. **(CO No. 96-10, Section 5d, Paragraph 3, R336.1213(3))**
3. The permittee shall implement and maintain the Malfunction Abatement Plan (MAP) for the Lime Handling System. The Plan shall be revised, as appropriate, and alternate formats or revisions to the Plan must be approved by the AQD District Supervisor<sup>2</sup>. **(CO No. 96-10, Section 5e, Paragraph 2, R336.1911)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform non-certified visible emission observation of the conveyor cover housing of the No. 2 BOF lime handling system at least once a week during lime handling activity. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform a certified Method 9 visible emission observation of the Lime truck transferring enclosure building at least once a month during lime handling/transferring from truck to the storage basement. **(R336.1213(3))**

**See Appendix 5-S1**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the inspections and dates on which inspections are performed in accordance with the schedule in Appendix A of CO No. 96-10. **(CO No. 96-10, Section 5d, Paragraph 2, R336.1213(3))**
2. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit during the certified visible emission observations required by V.2. The permittee shall keep a written record of each certified visible emission observation. The permittee shall keep a written record of each corrective action required **(R336.1213(3))**

**See Appendix 4-S1**

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUFIXEDSCREEN-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

800 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a feed hopper; feed conveyor system; a screen; a system of conveyors for screened pellet delivery to the B2 Conveyor, Ore Jenny, and/or storage pile via stacker; and a conveyor system to a fines collection bin.

**Flexible Group ID:** FGSCREENING

**POLLUTION CONTROL EQUIPMENT:**

Control equipment includes a screening enclosure (full boot) that covers the screen area and screen transfer points, and partial enclosures on conveyor transfer points.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	10% <sup>2</sup>	6 minute average	Screening enclosure (full boot) that covers the screen area and material transfer points of EUHARSCOSCREE N1-S1	VI.3&4	R 336.1301, R336.1331(1)(c) R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron ore pellets	800 tons per hour <sup>2</sup>	Daily average	EUHARSCOSCREE N1-S1	VI.2	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

- The permittee shall not process any asbestos tailing or asbestos containing waste materials in EUFIXEDSCREEN pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUFIXEDSCREEN-S1 unless the program for fugitive emissions control specified in Appendix A has been implemented and is maintained<sup>2</sup>. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient<sup>2</sup>. **(R 336.1371(5))**
3. The permittee shall not operate EUFIXEDSCREEN-S1 at the same time as EUHARSCOSCREEN1-S1 from PTI 78-11<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain belt scales on EUFIXEDSCREEN which will record the daily throughput rate for EUFIXEDSCREEN-S1<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate EUFIXEDSCREEN-S1 unless the screening enclosure (full boot) that covers the screen area and material transfer points is installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Maintenance of the enclosure in accordance with the manufacturer's specifications is sufficient to maintain a minimum particulate control efficiency of at least 90%<sup>2</sup>. **(R 336.1205, R 336.1301, R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition<sup>2</sup>. **(R 336.1301, R 336.1331(1)(c), R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep records of daily hours of operation and the amount of material processed through EUFIXEDSCREEN-S1. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request<sup>2</sup>. **(R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUFIXEDSCREEN-S1 at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken<sup>2</sup>. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUFIXEDSCREEN-S1 at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action<sup>2</sup>. **(R 336.1301, R 336.1303)**

#### **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUFIXEDSCREEN-S1<sup>2</sup>. **(R 336.1201(7)(a))**
2. Within 30 days after the shutdown of EUHARSCOSCREEN1-S1 from PTI 78-11 the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA

#### **IX. OTHER REQUIREMENTS**

1. Within 30 days of becoming operational, the permittee shall label EUFIXEDSCREEN, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed<sup>2</sup>. **(R 336.1201)**
2. The permittee shall permanently shut down EUHARSCOSCREEN1 from PTI 78-11 prior to the date when EUFIXEDSCREEN becomes operational. EUFIXEDSCREEN will become operational following a reasonable shakedown period, not to exceed 180 days<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>EUSCREENYARD-S1 EMISSION UNIT CONDITIONS</b>
---

**DESCRIPTION:**

Fugitive dust sources associated with the transport, handling and screening of iron ore pellets associated with U.S. Steel's ore screening equipment.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:**

NA

**I. EMISSION LIMITS**

1. Visible emissions from all wheel loaders, all truck traffic, and each of the material storage piles, operated and maintained in conjunction with EUSCREENYARD-S1, shall not exceed a three-minute average of five (5) percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451)<sup>2</sup>. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**
2. The requirements of SC I.1 will not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour, if the requirements of SC III.3 are met<sup>2</sup>. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUSCREENYARD-S1 unless the program for fugitive emissions control specified in Appendix 9-S1 has been implemented and is maintained<sup>2</sup>. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient<sup>2</sup>. **(R 336.1371(5))**
3. Prior to the exemption specified in SC I.2 being used, the permittee shall install a wind monitor that continuously monitors and records the wind speed at the location of the storage piles<sup>2</sup>. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 324.5525(j))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall perform a non-certified visible emission observation for EUSCREENYARD-S1 at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken<sup>2</sup>. **(R 336.1301, R 336.1303)**
2. The permittee shall perform a Method 9D certified visible emission observation for EUSCREENYARD at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action<sup>2</sup>. **(R 336.1301, R 336.1303, Act 451 Section 324.5525(j))**
3. The permittee shall monitor and record, at least once per quarter, the moisture content of the unscreened iron ore pellets during ore screening operations from a representative storage pile in the area where the loaders are moving material, to verify that the moisture content is at least 1.5%. This shall be done with methods as approved by the AQD District Supervisor<sup>2</sup>. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUKISHWETTINGSTATION-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Kish wetting station. Kish pots are transferred from the No. 2 BOP iron skimming desulfurization station to Levy's Plant 3 watering station where pots are wetted with water to control particulate matter when kish pots are emptied. There are a total of 10 watering stations.

Flexible Group ID: NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	10% opacity <sup>2</sup>	6-minute average	EUKISHWETTINGS TATION-S1	VI.1, 2, 3	R336.1201(3), R336.1331

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall maintain and implement agreed upon Levy Standard Operating Procedures for kish wetting and pit slag wetting made part of this permit condition by reference<sup>1</sup>. **(Consent Order No. 0035-97 (33)(a), R336.1901)**
2. The permittee shall install and maintain the second truck watering station<sup>1</sup>. **(Consent Order No. 0035-97 (33)(b), R336.1910)**
3. The permittee shall maintain a 15 minute wetting time for the pit slag<sup>1</sup>. **(Consent Order No. 0035-97 (33)(b), R336.1901)**
4. Fugitive dust emissions from the slag handling operations at the Levy Company facility located on property contiguous to United States Steel Great Lakes Work shall be controlled further by wetting the pit slag at the Levy Company Kish Watering Station prior to unloading. This operation shall be conducted by the Levy Company. **(Consent Order No. 96-10, Section 5b, Paragraph 2, R336.1901)**
5. The watering cycles shall not be less than 24 hours per pot unless a demonstration that a shorter time sequence will adequately control emissions is submitted to and approved by AQD<sup>2</sup>. **(R336.1301, R336.1331, R336.1201(3))**

6. The permittee shall not use untreated wastewater or process water for kish pot watering system makeup<sup>2</sup>.  
**(R336.1301, R336.1331, R336.1201(3))**
7. The permittee shall implement the approved program for fugitive dust control program<sup>2</sup>.  
**(R336.1301, R336.1331, R336.1201(3))**
8. The permittee shall not dump kish pots unless kish pot watering system is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the kish pot watering system is defined as maintaining the visible emissions limit from the kish pot dumping area and subjecting the kish pot for a minimum of 24 - hour wetting before dumping<sup>2</sup>.  
**(R336.1301, R336.1331, R336.1201(3))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform non-certified visible emission observation of the kish wetting station at least once a week during kish pot wetting activity. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform a certified Method 9 visible emission observation of the kish wetting station at least once a month during kish pot wetting activity. **(R336.1213(3))**

**See Appendix 5-s1**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
2. The permittee shall keep a written record of each certified visible emission observation required by V.2. The permittee shall initiate appropriate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. **(R336.1213(3))**
3. The permittee shall conduct regular inspections for the purpose of determining the operational condition of the kish pot watering system, and if necessary, the reasons for malfunction or failure. These inspections shall be conducted during scheduled outages or downtimes, and as soon as practicable after observing visible emissions, but not less frequently than at least once a month and shall keep a written record of each inspection and corrective action taken if any. **(R336.1213(3))**
4. The permittee shall keep a BOP kish pot dump record on a 24-hour daily basis. The record shall have the following:
  - a. Date
  - b. Kish Pot Number
  - c. Kish Dump Time
  - d. Water time
  - e. Dig Time**(R336.1213(3))**

See Appendix 7-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EUEMERGENCYGEN 7-S1  
EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

75 HP diesel fire pump for P Bldg subject to 40 CFR Part 60 Subpart IIII for new emergency engines less than 500 hp. Manufacture date: November 2006

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC+NOX	10.5 g/KW-hr	As specified within the test methods and procedures at 40 CFR 60.4212	EU-EMERGENCYGEN7-S1	V.1	40 CFR 60.4205(c) and Table 4
2. CO	5.0 g/KW-hr	As specified within the test methods and procedures at 40 CFR 60.4212	EU-EMERGENCYGEN7-S1	V.1	40 CFR 60.4205(c) and Table 4
3. PM	0.80 g/KW-hr	As specified within the test methods and procedures at 40 CFR 60.4212	EU-EMERGENCYGEN7-S1	V.1	40 CFR 60.4205(c) and Table 4

**II. MATERIAL LIMIT(S)**

1. The permittee shall only fire EUEMERGENCYGEN7-S1 with diesel fuel that meets the following per-gallon standards within 40 CFR 80.510(b) for nonroad diesel fuel:
  - a. maximum sulfur content of 15 parts per million by weight; **40 CFR 60.4207(b), 40 CFR 63.6590(c), 40 CFR 80.510(b)(1)(i)**
  - b. either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. **40 CFR 60.4207(b), 40 CFR 63.6590(c), 40 CFR 80.510(b)(2)(i) and (ii)**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall operate and maintain EU-EMERGENCYGEN7-S1 to achieve the emission standards at I.1, I.2, and I.3 over the entire life of the emission unit. **40 CFR 60.4206, 40 CFR 63.6590(c)**
2. The permittee shall operate and maintain EU-EMERGENCYGEN7-S1 according to the manufacturer's emission-related written instructions and shall change only those emission-related settings that are permitted by the manufacturer. **40 CFR 60.4211(a)(1) and (2), 40 CFR 63.6590(c)**
3. EU-EMERGENCYGEN7-S1 may be operated for the purpose of maintenance checks and readiness testing, per 40 CFR 60.4211(f). **40 CFR 60.4211(f), 40 CFR 63.6590(c)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall not operate EU-EMERGENCYGEN7-S1 unless the emission unit is equipped with a functional non-resettable hour meter. **40 CFR 60.4209(a), 40 CFR 63.6590(c)**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-s1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For EU-EMERGENCYGEN7-S1 the permittee shall maintain a demonstration of compliance with the emission standards within I.1, I.2, and I.3 by one of the following methods: **40 CFR 60.4211(b), 40 CFR 63.6590(c)**
  - a. Purchasing an emission unit certified according to 40 CFR 89 or 40 CFR 94, as applicable, for the same model year and maximum engine power. The emission unit must be installed and configured according to the manufacturer's specifications; **40 CFR 60.4211(b)(1), 40 CFR 63.6590(c)**
  - b. Keeping records of performance test results for each pollutant for a test conducted on a similar emission unit. The test must have been conducted using the same methods specified in Subpart IIII of 40 CFR 60 and these methods must have been followed correctly; **(40 CFR 60.4211(b)(2), 40 CFR 63.6590(c))**
  - c. Keeping records of emission unit manufacturer data indicating compliance with the standards; **40 CFR 60.4211(b)(3), 40 CFR 63.6590(c)**
  - d. Keeping records of control device vendor data indicating compliance with the standards; **40 CFR 60.4211(b)(4), 40 CFR 63.6590(c)**
  - e. Conducting an initial performance test to demonstrate compliance with the emission standards at I.1, I.2, and I.3 according to the requirements specified in 40 CFR 60.4212, as applicable. **40 CFR 60.4211(b)(5), 40 CFR 63.6590(c)**
2. The permittee shall maintain a complete record of the fuel specifications and/or fuel analysis for each delivery, or storage tank, of the fuel fired in EU-EMERGENCYGEN7-S1. These records may include purchase records for ASTM specification diesel fuel, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the parts per million by weight sulfur limit and either the minimum cetane index or the maximum aromatic content. **(R 336.1213(3))**
3. For EU-EMERGENCYGEN7-S1, the permittee shall keep records of the operation of the emission unit in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the emission unit and the reason the emission unit was in operation during that time. **(R 336.1213(3))**

See Appendices 3-S1, 4-S1, and/or 7-S1

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to

### D. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

#### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-SECTION 1-S1 FGBHZI-3-BLRHSE-S1	Conditions that apply to Section 1 operations Boilers in Zug Island No. 3 Boilerhouse	NA EUBHZI3-1-BOILER,-S1 EUBHZI3-2-BOILER-S1
FGBHZI-1&2BLRHSE-S1	Boilers in Zug Island Boilerhouses No. 1 and 2	EUBHZI1-1-BOILER-S1, EUBHZI1-2-BOILER-S1, EUBHZI1-3-BOILER-S1, EUBHZI1-4-BOILER-S1, EUBHZI1-5-BOILER-S1, EUBHZI2-1-BOILER-S1, EUBHZI2-2-BOILER-S1, EUBHZI2-3-BOILER-S1, EUBHZI2-4-BOILER-S1, EUBHZI2-5-BOILER-S1
FGBHMP1-8&9-BLRS-S1	Boilers 8 and 9 in Main Plant Boilerhouse No. 1	EUBHMP-1-8-S1, EUBHMP-1-9-S1
FGBURNOUT-OVENS-S1	Burnout Ovens	EUBURNOUT-OVEN-1-S1, EUBURNOUT-OVEN-2-S1
FGBLASTFURNACES-A1,B2,&D4-S1	Blast Furnaces "A1", "B2" and "D4"	EUBLAST-FCE-A1-S1, EUBLAST-FCE-B2-S1, EUBLAST-FCE-D4-S1
FG2BOP-SHOP-S1	Processes and equipment associated with the No. 2 Basic Oxygen Process Shop operations	EU2BOP-HMTDESULF-S1, EU2BOF-VESSELS-S1, EU2BOF-CHARGING-S1, EU2BOF-TAPPING-S1, EU2BOF-FLUX-SYS-S1
FG2BOP-SECONDARY-S1	Processes and equipment associated with the No. 2 Basic Oxygen Process Shop No. 1 Baghouse controlling secondary emissions from the BOP vessels.	EU2BOF-CHARGING-S1, EU2BOF-TAPPING-S1

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGREACTORS-EGL-OPS-S1	Electrogalvanizing line ion reactor operations, including: Ion reactor operations (10 ion reactors installed) and Fume scrubber system	EUREACTOR 1-S1, EUREACTOR 2-S1, EUREACTOR 3-S1, EUREACTOR 4-S1, EUREACTOR 5-S1, EUREACTOR 6-S1, EUREACTOR 7-S1, EUREACTOR 8-S1, EUREACTOR 9-S1, EUREACTOR 10-S1
FGIRON-STEEL-MACT-S1	Emission units subject to the Integrated Iron and Steel MACT( Subpart FFFFF)	EU-ARGONSTIR-S1 EULMF-OPERATIONS-S1 EUBLAST-FCE-A1-S1 EUBLAST-FCE-B2-S1 EUBLAST-FCE-D4-S1 EU2BOP-HMTDESULF-S1 EU2BOF-VESSELS-S1 EUBOF-CHARGING-S1 EUBOF-TAPPING-S1
FGCOLDCLEANERS-S1	Cold cleaners	EUCOLDCLEANERS-S1
FGPORTABLE-S1	Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.	EUPORTABLE1-S1, EUPORTABLE2-S1,
FGSCREENING-S1	Stationary and portable screening equipment for the U.S. Steel ore operations	EUFIXEDSCREEN-S1, EUPORTABLE1-S1, EUPORTABLE2-S1,
FG-USS-ZUG-FUG-S1	Fugitive dust control plan for miscellaneous sources at the Zug Island Facility	EU-USS-ZUG-FUG-S1
FG-USS-MAINPLANT-FUGDUST-S1	Fugitive dust control plan for miscellaneous sources at the Main Plant and 80" mill locations	EU-USS-MAINPLANT-FUGDUST-S1
FG-NEWRICE>500hp-S1	New emergency generators greater than 500 hp and subject to RICE MACT ( 40 CFR Part 63 Subpart ZZZZ)	EUEMERGENCYGEN 1-S1 EUEMERGENCYGEN 2-S1 EUEMERGENCYGEN 4-S1 EUEMERGENCYGEN 5-S1
FG-EXISTINGRICE<500hp-S1	Existing emergency generators less than 500 hp and subject to RICE MACT ( 40 CFR Part 63 Subpart ZZZZ)	EUEMERGENCYGEN 3-S1 EUEMERGENCYGEN 8-S1 EUEMERGENCYGEN 9-S1

**FG-SECTION1-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

Conditions that apply Section Wide to USS Section 1 operations

**Emission Unit:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. If the permittee is subject to 40 CFR 61, Subpart M, National Emission Standard for Asbestos, and conducts demolition or renovation activities, the permittee shall comply with the requirements of 40 CFR 61.145. **(40 CFR 61.145)**
2. If the permittee is subject to 40 CFR 61, Subpart M, National Emission Standard for Asbestos, and conducts waste disposal for demolition or renovation activities, the permittee shall comply with the requirements of 40 CFR 61.150. **(40 CFR 61.150)**
3. When the odor of hydrogen sulfide is found to exist beyond the property line of the facility, permittee shall not cause or allow the concentration of hydrogen sulfide to exceed 0.005 parts per million by volume for a maximum period of 2 minutes. Compliance with this requirement will be established by following an approved H<sub>2</sub>S Fence Line Odor Plan. The plan will be implemented and maintained, and will be reviewed and if necessary amended based on operational experience at least once during the five years of this permit. The permittee shall submit any amendments to the plan to the AQD District Supervisor for approval. If the AQD does not notify the permittee within 90 days of submittal, the H<sub>2</sub>S Fence Line Odor Plan or amended plan shall be considered approved<sup>2</sup>. **(R 336.1406(2), R 336.1901)**
4. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.
5. The permittee shall comply with all the applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities as set forth in 40 CFR Part 63, Subpart A and FFFFF. **(40 CFR Part 63, Subparts A and FFFFF)**
6. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters as set forth on 40 CFR Part 63 Subparts A and DDDD. **(40 CFR 63, Subparts A and DDDD)**

7. The permittee shall comply with all applicable provisions of the federal New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines as set forth in 40 CFR 60, Subparts A and IIII. **(40 CFR 60, Subparts A and IIII)**
8. The permittee shall comply with all applicable provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines as set forth in 40 CFR 63, Subparts A and ZZZZ. **(40 CFR 63, Subparts A and ZZZZ)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGBHZI-3-BLRHSE-S1**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Boilers in Zug Island Boilerhouse No. 3

**Emission Units:** EUBHZI3-1-BOILER-S1, EUBHZI3-2-BOILER-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen Oxide expressed as NO <sub>2</sub>	383.8 tons per year for both boilers combined <sup>2</sup>	Calendar Year	FGBHZI-3-BLRHSE-S1	G.C.13, VI.1	<b>R336.1201(3)</b>
2. Carbon Monoxide	76.75 tons per year for both boilers combined <sup>2</sup>	Calendar Year	FGBHZI-3-BLRHSE-S1	G.C.13, VI.1	<b>R336.1201(3)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep on file, in a satisfactory manner, calculations of the mass emissions of NOx and CO in tons per year as determined at the end of each calendar year for Boilers No. 1 and 2 combined. **(R336.1213(3))**

**See Appendix 4-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGBHZI-1&2BLRHSE-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Boilers in Zug Island Boilerhouses No. 1 and 2.

**Emission Units:** EUBHZI1-1-BOILER-S1, EUBHZI1-2-BOILER-S1, EUBHZI1-3-BOILER-S1, EUBHZI1-4-BOILER-S1, EUBHZI1-5-BOILER-S1, EUBHZI2-1-BOILER-S1, EUBHZI2-2-BOILER-S1, EUBHZI2-3-BOILER-S1, EUBHZI2-4-BOILER-S1, EUBHZI2-5-BOILER-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	20% opacity except for one 6 minute average per hour of not more than 27% <sup>2</sup>	6-minute average	FGBHZI-1&2BLRHSE-S1	V.1	R336.1301

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

- The type of fuels burned in No. 1 Boiler House Boilers No. 1 through No. 5 and in No. 2 Boiler House Boilers No. 1 through No. 5 shall be restricted to Blast Furnace Gas (BFG), Coke Oven Gas (COG), or Natural Gas (NG). **(SIP Consent Order No. 27-1993, Exhibit B, Zug Island Facility, Paragraph 1)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R336.1213(3)(b)(ii))**

- The permittee shall perform a Method 9 certified visible emission observation of the stack each operating boiler for a minimum of one hour at least once every six months (between Jan – June and July – December) during operation. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. **(R336.1213(3))**

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep records of all types and total amount of each fuel consumed for each boiler on a monthly basis. (R336.1213(3))

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGBHMP1-8&9-BLRS-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Boilers 8 and 9 in Main Plant Boilerhouse No. 1

**Emission Units:** EUBHMP-1-8-S1, EUBHMP-1-9-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	20% opacity except for one 6 minute average per hour of not more than 27% <sup>2</sup>	6-minute average	EUBHMP-1-8-S1, EUBHMP-1-9-S1	V.1	R336.1301

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The type of fuels burned in No. 8 Boiler and No. 9 Boiler at the Main Plant No. 1 Boiler house shall be restricted to Coke Oven Gas (COG), or Natural Gas (NG)<sup>1</sup>.  
(SIP CO 27.1993, Paragraph 13 and Exhibit B, Main Plant, 80" Mill (1), R336.1901)

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall perform a Method 9 certified visible emission observation of the stack each operating boiler for a minimum of one hour at least once every six months (between Jan – June and July – December) during operation. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. (R336.1213(3))

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall keep records of all types and total amount of each fuel consumed for each boiler on a monthly basis. (R336.1213(3))

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGBURNOUT-OVENS-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Burnout Ovens

**Emission Units:** EUBURNOUT-OVEN-1-S1, EUBURNOUT-OVEN-2-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate each burn-out oven in FGBURNOUT-OVENS for more than 2,920 hours per 12-month rolling time period as determined at the end of each calendar month<sup>2</sup>. **(R336.1201(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the total hours of operation for each burnout oven on a monthly and 12-month rolling time period as determined at the end of each calendar month. **(R336.1213(3))**

See Appendix 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGBLASTFURNACES-A1,B2&D4-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Blast Furnaces "A1", "B2", and "D4"

**Emission Units:** EUBLAST-FCE-A1-S1, EUBLAST-FCE-B2-S1, EUBLAST-FCE-D4-S1

**POLLUTION CONTROL EQUIPMENT**

Baghouses

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	447.4 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGBLASTFURNACES-A1,B2,&D4-S1	V.1, V.2, VI.4,5&6	<b>R336.1205(3)</b>
2. PM <sub>10</sub>	352.2 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGBLASTFURNACES-A1,B2,&D4-S1	V.1, V.2, VI.4,5&6	<b>R336.1205(3)</b>
3. Nitrogen Oxide	821.4 tons per year <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGBLASTFURNACES-A1,B2,&D4-S1	V.1, VI.2,3,4	<b>R336.1205(3)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Total iron production	3,718,000 per year <sup>2</sup>	Based on a 12-month rolling time period as determine at the end of each calendar month	FGBLASTFURNACES-A1,B2,&D4-S1	VI.1	<b>R336.1205(3)</b>

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the monthly natural gas usage rate in cubic feet<sup>2</sup>. **(R336.1205(3))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the monthly blast furnace gas usage rate in cubic feet<sup>2</sup>. **(R336.1205(3))**
3. The permittee shall maintain and implement Standard Operating Procedure (SOP) detailing work practices at the A1, B2, and D4 blast furnace casthouses<sup>1</sup>. **(WCAQMD Consent Order No. 0035-97, Section D, Paragraph 20, R336.1901)**

4. The permittee shall maintain and implement a written procedure to address abnormal conditions that occur during blast furnace process upsets. The written procedure shall have been reviewed with operation personnel and will be implemented as necessary and shall comply with the requirements of R336.1912<sup>2</sup>. **(R336.1912, WCAQMD Consent Order No. 0035-97, Section D, Paragraph 21)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a performance test to determine particulate matter (PM), PM<sub>10</sub>, and nitrogen oxide emission factors from at least one representative blast furnace stove stack at least once every five years. Particulate matter emission testing and nitrogen oxide emission testing shall be performed using approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(R336.1213(3))**
2. The permittee shall conduct a performance test to determine particulate matter (PM) emission factors from each blast furnace baghouse at once every five years. Particulate matter emission testing shall be performed using approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(R336.1213(3))**

See Appendix 5-S1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep records of the monthly and 12-month rolling time period iron production rates, in a satisfactory manner, as determined at the end of each calendar month and make the records available to the AQD upon request<sup>2</sup>. **(R 336.1205(3))**
2. The permittee shall keep on file records of the monthly and 12-month rolling time period natural gas usage, indicating the total amount of natural gas used, in cubic feet, as determined at the end of each calendar month<sup>2</sup>. **(R 336.1205(3))**
3. The permittee shall keep on file records of the monthly and 12-month rolling time period blast furnace gas usage, indicating the total amount of blast furnace gas used, in cubic feet, as determined at the end of each calendar month<sup>2</sup>. **(R 336.1205(3))**
4. The permittee shall keep on file, in a satisfactory manner, calculations determining the monthly and 12-month rolling time period mass emissions of PM, PM<sub>10</sub> and NO<sub>x</sub> as determined at the end of each calendar month. Separate calculations shall be kept for each of the emission units and for the flexible group. All calculations shall be conducted in accordance with the methodology specified in Appendix 7 of this permit. **(R336.1205(3))**
5. The A1, B2, and D4 blast furnace baghouses will be inspected by checking the following: the existence of visible stack emissions, chamber pressure differential, fan amps, compressor pressure and collectate handling operations. The permittee will inspect the A1, B2, and D4 blast furnace baghouse once every two weeks, if operating.  
**(WCAQMD Consent Order No. 0035-97, Section D, Paragraph 19, R336.1213(3))**
6. The permittee shall perform regular inspections of the A1, B2, and D4 blast furnace baghouses, as required by VI.5 and shall perform baghouse systems maintenance as required. **(WCAQMD Consent Order No. 0035-97, Section D, Paragraph 19, R336.1213(3))**

See Appendices 4-S1 and 7-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG2BOP-SHOP-S1**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Processes and equipment associated with the No. 2 Basic Oxygen Process Shop operations

**Emission Units:** EU2BOP-HMTDESULF-S1, EU2BOF-VESSELS-S1, EU2BOF-CHARGING-S1, EU2BOF-TAPPING-S1, EU2BOF-FLUX-SYS-S1

**POLLUTION CONTROL EQUIPMENT**

Electrostatic Precipitator (ESP), No. 1 Baghouse, No. 2 Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	20% opacity <sup>2</sup>	3-minute average	No. 2 BOP Roof monitor	V.1,2&3	<b>R336.1364(2), AQD CO 1-2005</b>
2. Visible emissions	20% opacity	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	No. 2 BOP roof monitor and any other secondary emissions that exit any opening in the BOPF shop	V.2&3	<b>40 CFR 63.7790(a)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	<b>NA</b>

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall implement and maintain procedures to improve the response time for re-sealing the emergency damper if it does not automatically re-seal after opening. These procedures will establish an average response time of 4 hours from the end of the next steel making heat, on the vessel which experienced the emergency damper opening<sup>1</sup>. **(CO No. 0035-97, Section F, Paragraph 29, R336.1901)**
2. The permittee shall implement and maintain a computerized maintenance management system (CMMS) for the pollution control equipment at the No. 2 BOP (i.e., the ESP, the secondary emissions baghouse (No. 1 BH), and the hot metal transfer baghouse (No. 2 BH))<sup>2</sup>. **(CO No. 0035-97, Section F, Paragraph 31, R336.1910)**
3. The permittee shall control fugitive dust emissions by conducting all loading of pit slag within the No. 2 BOP Structure<sup>1</sup>. **(CO No. 96-10, Section 5b, Paragraph 1, R336.1901)**
4. No. 2 BOP dust transported to the briquetting facility for processing shall be transported by pneumatic truck, live bottom truck, or equipment with similar dust minimization proven potential<sup>1</sup>.

**(CO No. 96-10, Section 6, Paragraph (a), R336.1901)**

5. Processed briquette will be recycled into the steel-making process or otherwise recycled within the iron and steel making process<sup>1</sup>. **(CO No. 96-10, Section 6, Paragraph (b), R336.1901)**
6. No. 2 BOP ESP dust that is not processed through the briquetting facility shall be unloaded into pneumatic or enclosed trucks using a telescoping chute or other equivalent means and disposed of at an offsite facility having all applicable waste and air permits<sup>1</sup>. **(CO No. 96-10, Section 6, Paragraph (b), R336.1901)**
7. The permittee shall implement and maintain the Malfunction Abatement Plan (MAPs) for the No. 1 Baghouse (Secondary Emissions), and No. 2 Baghouse (Hot Metal Transfer) developed pursuant to Consent Order WCAQMD 96-10. The MAPs can be revised as appropriate, and alternate formats or revisions to the approved MAPs can be made upon approval by the AQD District Supervisor<sup>2</sup>.  
**(CO No. 96-10, Section 5e, Paragraph 1, R336.1911)**
8. The permittee shall develop and implement a BOP Equipment Inspection Plan to inspect the equipment at the No. 2 BOF in accordance with the schedule in Appendix C of Consent Order No. 96-10. This Plan shall be revised as appropriate, and alternate formats or revisions to the Plan must be approved by the AQD District Supervisor<sup>2</sup>.  
**(CO No. 96-10, Section 5f, Paragraph 1, R336.1910)**
9. The permittee shall implement and maintain the Standard Maintenance Plan (SMPs) for the equipment specified in Appendix D developed pursuant to Consent Order WCAQMD 96-10. The SMPs shall be revised as appropriate, and alternate formats or revisions to the approved SMPs must be approved by the AQD District Supervisor<sup>2</sup>.  
**(CO No. 96-10, Section 5f, Paragraph 3, R336.1910)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform a non-certified visible emission observation of the No. 2 BOP roof monitors, including hot metal transfer and desulfurization operations and slag skimming, for fugitive emissions at least once a week during the BOP shop operations. If visible emissions are observed, a Method 9C certified visible emission observation will be performed at that time. Observations shall occur when equipment is operating.  
**(R336.1213(3))**
2. The permittee shall perform a Method 9C certified visible emission observation of the No. 2 BOP roof monitors, including hot metal transfer and desulfurization operations and slag skimming, for fugitive emissions at least once every week for a minimum of 2 hours using an independent certified Method 9 observer and should include at least one steel production cycle. Observations shall occur when equipment is operating. The permittee shall provide, on a monthly basis, to the AQD Detroit Office Supervisor, in writing, a schedule of the date, approximate time, and place of the planned Method 9C opacity observations, and who shall conduct them. The date and time will be subject to change based on operating schedules, weather conditions, or other unforeseen conditions. The permittee shall also submit the results of the Method 9c observations to the AQD Detroit Office Supervisor on a monthly basis **(R336.1213(3), AQD CO 1-2005)**
3. The permittee shall perform a Method 9C certified visible emission observation of the No. 2 BOP roof monitors, No. 2 BOP shop building openings, or of any other location used for beaching during each beaching event that occurs during daylight hours. **(R 336.1301(c), R 336.1364(2))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep on file documentation of the re-sealing of the emergency damper if it does not automatically re-seal after opening and make the records available to AQD upon request. **(CO No. 0035-97, Section F, Paragraph 29)**
2. The permittee shall keep on file records of the CMMS computer files and make the records available to AQD upon request. **(CO No. 0035-97, Section F, Paragraph 31)**
3. The permittee shall keep records of the inspections and dates on which inspections are performed to the equipment at the No. 2 BOP in accordance with the requirements of CO No. 96-10. **(CO No. 96-10, Section 5f, Paragraph 1, R336.1213(3))**
4. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
5. The permittee shall keep a written record of each certified visible emission observation required by V.2. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
6. The permittee shall keep a written record of each certified visible emission observation required by V.3. Additionally, the permittee shall maintain of log of each beaching event, which shall include the date, start time, stop time, visible emissions observations or the reason why such observation was not conducted, and the reason for beaching. Permittee shall initiate appropriate corrective action if visible emissions exceeding the applicable emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required **(R336.1213(3))**

**See Appendix 4-S1**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S1**

## **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG2BOP-SECONDARY-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Charging and tapping of the No. 2 Basic Oxygen Process Furnaces controlled by the No. 2 BOP No. 1 Baghouse and/or Electrostatic Precipitator

Basic Oxygen Furnace – Charging emission unit group includes the following processes and process equipment:

1. Transfer of scrap from the scrap boxes into Number 25 and Number 26 Furnaces
2. Transfer of hot metal from the hot metal ladles into the Number 25 and Number 26 Furnaces
3. Three sided enclosures and integral secondary fume hoods for “secondary emissions” generated during the charging operations

Charging operation “secondary emissions” are captured by the secondary emission control system baghouse (No. 2 BOP No. 1 Baghouse).

Tapping emission unit group includes the following processes and process equipment:

1. Transfer of steel from Number 25 and Number 26 Furnaces into steel ladles
2. Alloy/Flux additions made during transfer of steel into ladles

Tapping operation “secondary emissions” are captured by the secondary emission control system baghouse (No. 2 BOP No. 1 Baghouse) and/or primary emission control system (Electrostatic Precipitator).

**Emission Units:** EU2BOF-CHARGING-S1, EU2BOF-TAPPING-S1

**POLLUTION CONTROL EQUIPMENT**

No. 1 Baghouse (primary control) and ESP (backup)

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate matter	0.01 grains per dry standard cubic foot	As determined by the testing procedures in 40 CFR Part 63 Subpart FFFFF	No. 2 BOP No. 1 Baghouse roof monitor	V.3, VI.3	40 CFR 63.7790(a), 40 CFR 63 Subpart FFFFF, Table 1.9.c
2. Particulate Matter	0.005 grains per dry standard cubic foot	As determined through reference method 5D at R336.2013	No. 2 BOP No. 1 Baghouse roof monitor	V.4, VI.3	SIP CO. No. 27-1993, Exhibit B, Paragraph 2
3. Particulate Matter	0.038 pounds per 1,000 pounds gas <sup>2</sup>	As determined through reference method 5D at R336.2013	No. 2 BOP No. 1 Baghouse roof monitor	V.3, VI.3	R336.1331(a), Table 31(C)(1)(B))
4. Visible emissions	20% opacity <sup>2</sup>	3 minute average	No. 2 BOP No. 1 Baghouse Roof monitor	V.1&2	R336.1364(1)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall maintain methods to further control emissions from hot metal charging which are captured by the secondary hoods and baghouse system. These methods include hot metal pouring technique and vessel angle to improve emission capture<sup>1</sup>. **(CO No. 0035-97, Section F, Paragraph 26, R336.1901)**
2. The permittee shall maintain and operate an event recorder to log the position of the secondary emission control system duct louver during the furnace operation cycle. **(CO No. 0035-97, Section F, Paragraph 27, R336.1213(3))**
3. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for No. 2 BOP No. 1 Baghouse. Each plan must address the following:
  - a. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.
  - b. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - c. Operating limits for each capture system applied to secondary emissions from a BOPF vessels. The permittee must establish the operating limits according to the following requirements:
    - (i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. This shall, at a minimum, include appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.
    - (ii) For each operating limit parameter selected, the value or setting for the parameter at which the capture system operates during the process operation shall be designated. If the operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that may be used.
    - (iii) Include documentation in the plan to support the selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why the parameter was chosen, a description of the method used to monitor the parameter according to the requirements of 40 CFR 63.7830(a), and the data used to set the value or setting for the parameter for each process configuration.  
**(40 CFR 63.7800(b), AQD CO 1-2005)**
4. The permittee must operate the emission control system for No. 2 BOP No. 1 baghouse at or above the lowest value or settings established for the operating limits in the operation and maintenance plan. **(40 CFR 63.7800(b), 40 CFR 63.7833(b)(1))**

5. The permittee shall develop a site-specific monitoring plan for No. 2 BOP No. 1 Baghouse and make the plan available to the permitting authority upon request. The plan shall contain the following information: **(40 CFR 63.7831(a))**
  - a. Installation of a continuous parameter monitoring system (CPMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
  - b. Performance and equipment specification for the sample interface, the parametric signal analyzer, and the data collection and reduction system; **(40 CFR 63.7831(a)(2))**
  - c. Performance evaluation procedures and acceptance criteria; **(40 CFR 63.7831(a)(3))**
  - d. Ongoing operation and maintenance procedures in accordance with 40 CFR 63.8(c)(1), (3), 4(iii), (7) and (8); **(40 CFR 63.7831(a)(4))**
  - e. Ongoing data quality assurance procedures in accordance with 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
  - f. Ongoing recordkeeping and reporting procedures in accordance with 40 CFR 63.10(c), (e)(1) and (e)(2)(i); **(40 CFR 63.7831(a)(6))**
6. The permittee must install a CPMS according to the requirements in 40 CFR 63.7831(e) for the No. 2 BOP No. 1 baghouse. **(40 CFR 63.7830(a))**
7. The CPMS shall complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data. **(40 CFR 63.7831(b)(1))**
8. The CPMS shall provide valid hourly data for at least 95 percent of every averaging period. **(40 CFR 63.7831(b)(2))**
9. The permittee shall operate and maintain a CPMS on the No. 2 BOP No. 1 Baghouse Control System in continuous operation according to the plan required by 40 CFR 63.7831(a). **(40 CFR 63.7831(d))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform non-certified visible emission observations of the No. 2 BOP No. 1 Baghouse roof monitor at least once a week during the charging and tapping activity. If visible emissions are observed, a Method 9C certified visible emission observation will be performed at that time. **(R336.1213(3))**
2. The permittee shall perform a certified Method 9C visible emission observation of the No. 2 BOP No. 1 baghouse roof monitors at least once a month during the charging and tapping activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. **(R336.1213(3))**
3. The permittee shall conduct performance tests of the No. 2 BOP No. 1 Baghouse for PM emissions in Special Condition I.1 and I.3 no less frequently than once per permit term. Performance testing shall be performed using Reference Methods 1 (Port Location); 2, 2F or 2G (Volumetric Flow); 3, 3A, or 3G (Dry Molecular Weight); 4 (Moisture Content); 5, 5D or 17 (Concentration of Particulate Matter - front half filterable catch only). Each test run shall collect a minimum sample volume of 60 DSCF of gas. A performance test shall include three valid test runs. Sample only during the steel production cycle. Conduct sampling under conditions that are representative of normal operation. Record the start and end time of each steel production cycle and each period of abnormal operation. Sample for an integral number of steel production cycles. The steel production cycle begins when the scrap is charged to the furnace and ends 3 minutes after the slag is emptied from the

vessel into the slag pot. The permittee shall submit notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin for any testing required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7840(d), 40 CFR 63.7(b)(1), 40 CFR 63.7821(b), 40 CFR 63.7822 (b)(1) and (2), 40 CFR 63.7822 (g)(1) and (2), 40 CFR 63.7833(a))**

4. The permittee shall conduct a performance test of the No. 2 BOP No. 1 Baghouse roof monitor for PM emissions in Special Condition I.2 every other year or more frequently upon the request of AQD. Particulate matter emission testing shall be performed using Reference Method 5D or other approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(CO No. 0035-97, Section H, Paragraph 35, R336.1213(3))**

**See Appendix 5-S1**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep a written record of each non-certified visible emission observation required by V.1. If a certified reading is subsequently required, the permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
2. The permittee shall keep a written record of each certified visible emission observation required by V.2. Permittee shall initiate appropriate corrective action if visible emission exceeding the emission limit are observed during the certified visible emission observations. The permittee shall keep a written record of each corrective action required. **(R336.1213(3))**
3. The permittee shall conduct inspections of the No. 2 BOP No. 1 Baghouse at the specified frequencies according to the requirements in paragraphs (i) through (viii) below. The permittee shall maintain records needed to document conformance with these requirements.
  - a. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.
  - b. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
  - c. Check the compressed air supply for pulse-jet baghouses each day.
  - d. Monitor cleaning cycles to ensure proper operation using an appropriate methodology.
  - e. Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
  - f. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.
  - g. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.
  - h. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. **(40 CFR 63.7830(b)(4), R336.1213(3), 40 CFR 64.6(c)(1)(i and ii))**
4. The permittee must determine and record the hourly average of all recorded readings from each CPMS required under 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7831(b)(3))**
5. The permittee shall collect, reduce and record any monitoring data for each of the operating limit parameters for each of the continuous parameter monitoring system (CPMS) for the No. 1 Baghouse at the No. 2 BOP Shop. **(40 CFR 63.7833(b)(2), 40 CFR 63.7842(d))**

6. The permittee shall keep records of the event recorder log of the position of the secondary emission control system duct louver during the furnace operation cycle and keep the file for a period of at least two years and shall be made available in an acceptable format to AQD upon request.  
**(CO No. 0035-97, Section F, Paragraph 27, R336.1213(3))**
7. An excursion is a pressure drop outside of the normal operating range identified in the manual as described in S.C. VI.3. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of FG2BOP-SECONDARY-S1 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **((40 CFR 64.6(c)(2)), 40 CFR 64.7(d))**
8. The permittee shall maintain records of all inspections and required remedial actions associated with the OMP. **(AQD CO 1-2005).**
9. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
10. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
11. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 4-S1

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting

period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii), R336.1213(3)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall maintain a current copy of the operation and maintenance plan required under III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
2. The permittee shall retain copies of old operation and maintenance plans for the life of the source subject to 40 CFR Part 63, Subpart FFFFF or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7834(b))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGREACTORS-EGL-OPS-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Electrogalvanizing line ion reactor operations, including: Ion reactor operations (10 ion reactors installed) and Fume scrubber system

**Emission Units:** EUREACTOR-1-S1, EUREACTOR-2-S1, EUREACTOR-3-S1, EUREACTOR-4-S1, EUREACTOR-5-S1, EUREACTOR-6-S1, EUREACTOR-7-S1, EUREACTOR-8-S1, EUREACTOR-9-S1, EUREACTOR-10-S1

**POLLUTION CONTROL EQUIPMENT**

Fume scrubber system

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfuric Acid	0.20 pound per hour based on 8-hour time period average <sup>1</sup>	As determined through reference test method 8 at R336.2004 or otherwise determined by the testing protocol agreed upon by AQD	FGREACTORS-EGL-OPS	V.1	R336.1224, R336.1225

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate the ion reactors unless the fume scrubber is installed, maintained and operated in a satisfactory manner. Satisfactory operation includes maintaining the water flow rate as specified in the operation and maintenance plan<sup>2</sup>. **(R 336.1224, R336.1225, R 336.1910)**
2. The permittee shall keep, implement and maintain the approved operation and maintenance plan (Plan) for the scrubber. Alternate formats or revisions to the approved Plan must be approved by the AQD District Supervisor. The approved Plan shall contain the following:
  - a. Operation and maintenance criteria for the scrubber and for the scrubber monitoring equipment to document the operation and maintenance of the equipment;
  - b. The work practice standards for the scrubber and monitoring equipment;
  - c. Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and
  - d. A systematic procedure for identifying the scrubber and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions<sup>2</sup>.  
**(R 336.1224, R336.1225, R336.1910)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the water flow rate to the fume scrubber. The monitoring device shall have an alarm to notify the permittee when the flow rate has fallen below the value specified in the operation and maintenance plan<sup>2</sup>. **(R336.1224, R336.1225, R336.1910)**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a sulfuric acid emission test during electrogalvanizing line ion reactor operation once every five years or more frequently upon the request of AQD. Sulfuric acid emission testing shall be performed using Reference Method 8 or other approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3))**

See Appendix 5-S1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep, in a satisfactory manner, daily water flow readings for the fume scrubber and make the records available to AQD upon request<sup>2</sup>. **(R336.1224, R336.1225, R336.1910)**
2. The permittee shall keep, in a satisfactory manner, records for any low flow alarms, including the date and time of the alarm, and the actions taken to correct the malfunction and make the records available to AQD upon request<sup>2</sup>. **(R336.1224, R336.1225, R336.1910)**
3. The permittee shall keep, in a satisfactory manner, monthly production records for FGREACTORS and make the records available to AQD upon request<sup>1</sup>. **(R336.1224, R336.1225)**

See Appendices 3 and 4

#### **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

#### **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVEGL-FUME-SCRBR	54 <sup>2</sup>	88 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGIRON-STEEL-MACT-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Conditions that apply to all EU's subject to the Integrated Iron and Steel MACT (40 CFR 63 Subpart FFFFF)

**Emission Units:** EUBLAST-FCE-A1-S1, EUBLAST-FCE-B2-S1, EUBLAST-FCE-D4-S1, EU2BOP-HMTDESULF-S1, EU2BOF-CHARGING-S1, EU2BOF-TAPPING-S1, EU2BOF-VESSELS-S1, EUARGON-STIR-S1, EULMF-OPERATIONS-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee must always operate and maintain sources subject to the requirements of 40 CFR Part 63, Subpart FFFFF, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7800(a), 40 CFR 63.6(e)(1)(i))**
2. The permittee must be in compliance with the emission limitations and operation and maintenance requirements in 40 CFR Part 63, Subpart FFFFF at all times, except during periods of startup, shutdown, and malfunction as defined in 40 CFR 63.2. **(40 CFR 63.7810(a))**
3. The permittee shall develop a written startup, shutdown, and malfunction plan for each emission unit if FG-IRON-STEEL-MACT-S1 according to the provisions in 40 CFR 63.6e(3). **(40 CFR 63.7810(c), 40CFR63.6(e)(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S1

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall keep on file copies of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting any initial notification or notification of compliance status, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**
2. The permittee shall keep on file records specified in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown and malfunction. **(40 CFR 63.7842(a)(2))**
3. The permittee shall keep records of performance tests, performance evaluations, and opacity observations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
4. Records required under 40 CFR Part 63, Subpart FFFFF must be kept in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7843(a))**
5. Records required under 40 CFR Part 63, Subpart FFFFF must be kept on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years of the five year record retention period. **(40 CFR 63.7843(c))**
6. The permittee shall keep records required in 40 CFR 63.7833 and 40 CFR 63.7834 to show continuous compliance with each applicable emission limitation and operation and maintenance requirement **(40 CFR 63.7842)**

See Appendices 7-S1

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit compliance reports for sources subject to 40 CFR Part 63, Subpart FFFFF semiannually. The semiannual reports will be submitted consistent with the schedule in VII.2 as allowed under 40 CFR 63.7841(a)(5). Each compliance report shall contain:
  - a. Company name and address
  - b. Statement by responsible official, with that official's name title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
  - c. Date of the report and beginning and ending dates of the reporting period.
  - d. If a startup, shutdown, or malfunction occurred during the reporting period and actions consistent with the startup, shutdown, and malfunction plan were taken, the compliance report must include the information in 40 CFR 63.10(d)(5)(i).
  - e. If there were no deviations from the continuous compliance requirements in 40 CFR 63.7833 and 63.7834 that apply, a statement that there were no deviations from the emission limitations or operation and maintenance requirements during the reporting period.
  - f. If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or continuous emission monitoring system (CEMS)) was out-of-control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

- g. For each deviation from an emission limitation in 40 CFR 63.7790 that occurs at a source where a continuous monitoring system (including a CPMS, COMS, or CEMS) is not used to comply with an emission limitation in 40 CFR Part 63, Subpart FFFFF, the compliance report must contain the following and includes periods of startup, shutdown, and malfunction:
  - i. The total operating time of each affected source during the reporting period.
  - ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.
- h. For each deviation from an emission limitation occurring at an affected source where the permittee is using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, the permittee must include the following and includes periods of startup, shutdown, and malfunction.
  - i. The date and time that each malfunction started and stopped.
  - ii. The date and time that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.
  - iii. The date, time, and duration that each continuous monitoring system was out-of-control as specified in §63.8(c)(7), including the information in §63.8(c)(8).
  - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  - v. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  - vi. A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  - vii. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.
  - viii. A brief description of the process units.
  - ix. A brief description of the continuous monitoring system.
  - x. The date of the latest continuous monitoring system certification or audit.
  - xi. A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

**(40 CFR 63.7841(a)(5), 40 CFR 63.7841(b))**

- 5. In the event the facility responds to a startup, shutdown, or malfunction of a process subject to the requirements of 40 CFR Part 63, Subpart FFFFF in a manner that is not consistent with the applicable startup, shutdown, and malfunction plan, the permittee must submit an immediate startup, shutdown, and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**
- 6. If you have obtained a Title V operating permit for an affected source pursuant to 40 CFR part 70 or 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority. **(40 CFR 63.7841(d))**

**See Appendices 3-S1, 4-S1, and/or 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGPORTABLE-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.

**Emission Units:** EUPORTABLE1, EUPORTABLE2

**POLLUTION CONTROL EQUIPMENT:**

The feed conveyors for the portable screening units are partially enclosed which mitigates particulate emissions.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	20% <sup>2</sup>	6 minute average	Each screening unit of FGPORTABLE	VI.4	R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron ore pellets	350 tons per hour <sup>2</sup>	Daily average	Each screening unit of FGPORTABLE	VI.2	336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

- The permittee shall not process any asbestos tailing or asbestos containing waste materials in FGPORTABLE pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**
- The permittee shall burn only diesel fuel, with the maximum sulfur content of 500 ppm (0.05 percent) by weight, in the engine portion of each FGPORTABLE<sup>2</sup>. **(R 336.1205(1)(a), R 336.1402(1))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

- The permittee shall not operate FGPORTABLE unless the program for fugitive emissions control specified in Appendix A has been implemented and is maintained<sup>2</sup>. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**

2. The permittee shall not operate the engine portion of FGPORTABLE, EUPORTABLE1 and EUPORTABLE2 combined, for more than 16,785 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month<sup>2</sup>. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall not operate FGPORTABLE at the same time as EUHARSCOSCREEN2 and EUHARSCOSCREEN3 from PTI 78-11<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain a belt scale on each EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE which records the daily throughput rate for each EUPORTABLE1 and EUPORTABLE2<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate FGPORTABLE unless the units are installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Configuration and maintenance of the equipment in accordance with the manufacturer's specifications is sufficient to minimize particulate emissions and maintain a minimum particulate control efficiency of 85%<sup>2</sup>. **(R 336.1205, R 336.1301, R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition<sup>2</sup>. **(R 336.1301, R 336.1303, R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep records for EUPORTABLE1 and EUPORTABLE2 separately, of the amount of material processed per day and the hours of operation per day. The permittee shall keep records of the amount of material processed and hours of operation on file and make them available to the Department upon request<sup>2</sup>. **(R336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken<sup>2</sup>. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUPORTABLE1 and EUPORTABLE2 of FGPORTABLE at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action<sup>2</sup>. **(R 336.1301, R 336.1303)**
5. The permittee shall keep records of, in a satisfactory manner, the maximum sulfur content of the fuel for each shipment of fuel received. If supplier certification is used for this purpose, records of certification must contain the name of the supplier<sup>2</sup>. **(R336.1205, R336.1225, R336.1331, R 336.1402, R336.1702)**

6. The permittee shall monitor and record the hours of operation of each engine portion of FGPORTABLE on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division<sup>2</sup>. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGPORTABLE<sup>2</sup>. **(R 336.1201(7)(a))**
2. Within 30 days after the shutdown of EUHARSCOSCREEN2 and EUHARSCOSCREEN3 from PTI 78-11 the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA

#### **IX. OTHER REQUIREMENTS**

1. Within 30 days of becoming operational the permittee shall label EUPORTABLE1 and EUPORTABLE2, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed<sup>2</sup>. **(R 336.1201)**
2. The permittee shall permanently shut down EUHARSCOSCREEN2 and EUHARSCOSCREEN3 from PTI 78-11 prior to the date when EUPORTABLE1 and EUPORTABLE2 become operational. EUPORTABLE 1 and EUPORTABLE2 will become operational following a reasonable shakedown period, not to exceed 180 days<sup>2</sup>. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FGSCREENING-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

Stationary and portable screening equipment for the U.S. Steel ore operations.

**Emission Units:** EUFIXEDSCREEN, EUPORTABLE1, EUPORTABLE2

**POLLUTION CONTROL EQUIPMENT:**

The feed conveyors are partially and/or fully enclosed to reduce fugitive emissions.

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron ore pellets	7,763,500 tons per year	Based on a 12-month rolling time period as determined at the end of each calendar month	FGSCREENING	VI.2	336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. Iron ore pellets	5,874,750 tons per year (of the 7,763,500 tons in S.C. II.1)	Based on a 12-month rolling time period as determined at the end of each calendar month	FGPORTABLE	VI.2	336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition<sup>2</sup>. **(R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep records of the amount of material processed through EUFIXEDSCREEN and FGPORTABLE on a monthly and 12-month rolling time period basis. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request<sup>2</sup>. **(R336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-USS-ZUG-FUG-S1**  
**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any fugitive dust source at Zug Island

**Emission Units:** EU-ZUGISLAND-FUG-DUST

**POLLUTION CONTROL EQUIPMENT**

SIP CO No. 27-1993 Fugitive Dust Control Plan requirements

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	5% opacity	3-minute average <sup>a,b</sup>	Fugitive dust from any road, lot, storage pile, or material handling activity at a storage pile	VI.1,2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)
2. Fugitive Dust	20% opacity	3-minute average <sup>a</sup>	Fugitive dust from any other source	VI.1,2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)

<sup>a</sup>in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

<sup>b</sup>The provisions of this subsection shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour (40.2 kilometers per hour).

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

The permittee shall comply with the following source descriptions and control measures:

**A. PAVED ROADS**

1. Paved roads are vacuum swept twice a day, five (5) days a week.
2. Cleaning Equipment Description:

a) Vacuum Sweeping – An industrial road sweeper wets, sweeps and vacuums in one traverse. An on-board water tank supplies the wetting water for the front spray bar, and directly behind the flush bars are two rotary brooms which sweep the road surface washings toward the center of the road sweeper. A vacuum spout draws the swept washings into the debris tank mounted on the truck.

3. Roadway sweeper collected is deposited in one of two areas. Material collected from roadways in the coal fields is deposited near the working face of an active pile and is returned to the coal feed stream. Material collected in the breeze processing area can be treated similarly. Other roadway dusts are taken to the refuse transfer station, near D-4 furnace as shown in the plan. On a five (5) day a week basis debris is hauled from the transfer area to licensed landfills.

#### B. UNPAVED ROADS

1. All unpaved roads will be treated with asphalt emulsion, petroleum resin, or an acrylic cement.
2. Road Pro or an equivalent effective asphalt emulsion, petroleum resin or acrylic cement will be used as the chemical dust suppressant. The dilution ration is 7 parts water/1 part suppressant and the application rate will be 0.83 gal. solution / sq. yd..
3. Application Intensity – One (1) gallon of suppressant solution per 100 square feet of surface.
4. The unpaved roads listed in Table 13 will be treated once every month, unless weather conditions preclude treatment. All unpaved roads not listed in Table 13 will be treated once per quarter, unless weather conditions preclude treatment.

#### C. PAVED and UNPAVED PARKING LOTS

1. Paved lot accesses are vacuum swept once a week.
2. An asphalt emulsion, petroleum resin, or acrylic cement will be applied to unpaved parking lots and unpaved parking lot accesses. The unpaved lots listed in Table 13, and any associated unpaved accesses, will be treated once every month, unless weather conditions preclude treatment. All unpaved lots not listed in Table 13, and any associated accesses will be treated once per quarter, unless weather conditions preclude treatment.
3. The dilution ratio is 7 parts water / 1 part suppressant. The application intensity is 0.83 gal. solution / sq. yd.
4. Dust suppressant application is suspended during the non-control season from November through February. (Note: Not applicable to vacuum sweeping which is continuous.)
5. Roads are inspected on a daily basis, five (5) days a week during the control season and once a week during the non-control season.
6. The road sweeper operator traces his route on a plant map showing which roads were swept on his shift. The Environmental Control Inspector on duty at Zug Island reviews the maps and may make recommendations for priorities. In addition to those roads specified by Environmental Control, the sweeper operator at his discretion may resweep any road he determines to be dusty. This flexibility has been built in to permit the Environmental Control Inspector to focus on roads on a priority basis based on the locations in the plant where transportation activities are occurring. Sweeper route maps are maintained for a period of at least two (2) years.
7. Spills are observed by the Environmental Control Inspector or are reported by others to him. The environmental Control Inspector arranges with General Labor to have appropriate equipment and personnel dispatched to clean up the spill. Spills are removed by the end of the next weekday workday.
8. Vehicle speeds are restricted to 15 mph at all times and monitored by GLW Security.

#### D. TRANSPORTATION OF BULK MATERIALS

1. Material transported in trucks that are in the category of >1% to <5% silt are loaded with 6" freeboard or are adequately wetted and stable.
  - a. Mill Scale – oily material – 6" freeboard
2. Truck bodies are inspected to insure integrity.
3. Vehicles are limited to speeds less than 15 mph.

4. Vehicle exhaust is directed upwards.
5. Materials in the category of >5% to <20% silt are wet or transported in covered trucks.
  - i. B.F. flue dust – Not tarped because of high temperatures
  - ii. Blend - Wet and stable crust
  - iii. Slag Chips - Delivered to plant in vendor truck
6. When precipitation in any form during the previous 24 hour period has exceeded 0.1 inches or current precipitation obviates the need for control of the material being transported, wet suppression is suspended.
7. During the non-control season from November to March, wet suppression of materials is suspended.

**E. INSPECTION PROCEDURES**

1. The Environmental Control Department will select 1 random trucks for inspection. These observations will be made on a monthly basis and shall record the following information:
  - a. Date
  - b. Truck Identification
  - c. Contents
  - d. Adequate freeboard
2. Truck bodies will be inspected by the trucking contractor and the Environmental Control Department with the following frequency:
  - a. Permanently assigned trucks – semiannually
  - b. Temporary or contract trucks – upon entry to site and every 6 months thereafterInspection reports will be prepared and retained on file for a period of 12 months following the date of inspection. Any permanently assigned truck found defective will be promptly scheduled for repair or replacement. Any temporary contract truck found defective will be promptly repaired or removed from the site.
3. Vehicle Speeds – The maximum posted and permitted speed on Great Lakes Works property is 15 mph. This speed is monitored and controlled by the mobile division of the Great Lakes Security Department.
4. Vehicle Exhaust – Truck exhausts will be reexamined to confirm their vertical discharge. Contract trucks will be inspected upon arrival at the plant. These inspections and the resulting records will be prepared and retained as in H.2 above.

**F. SPECIAL CONSIDERATIONS**

1. Most of the raw materials are received in self unloading boats. The booms from these boats are normally kept close to a pile top. However, occasionally wave action causes a boat to rock gently and results in boom rise and fall. To avoid boom damage under these conditions a greater vertical separation is maintained between the boom and pile top, and as a result, drop heights of 20 feet may occur at these times. Under more normal conditions, a drop height of 5 feet or less can be maintained. This height of 5 feet or less is also maintained for stacker booms.
2. All materials hauled from Zug Island are transported in contractor trucks. Although control of fugitive emissions from contractor trucks leaving Zug Island is rightfully the responsibility of each contractor, a requirement for 6" of freeboard will be included in all new truck hauling contracts.

**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 3)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

**See Appendix 5-S1**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. A journal log book is kept and retained for a period of at least 2 years after the final entry. Records shall include:
  - a. Date
  - b. Time
  - c. Weather conditions
  - d. Observations of roadway and lot conditions
  - e. Observations of spills or reports of such
  - f. Observations of loading and unloading operations
  - g. Control activities:
    - a. Recently completed activities
    - b. Actions requiring implementation
  - h. Dates of arrival of boat or train shipments
2. Records of dust suppressant applications made pursuant to paragraph B.1 and B.2 above will be maintained by Great Lakes Works Environmental Control Department and will be retained for a period of at least 2 years.
3. The permittee shall record on a daily basis the treatment information for the fugitive dust sources using the format specified in Appendix 4.  
**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph J (2) and ADDENDUM, R336.1213(3))**

**See Appendices 3-S1 and 4-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.  
**(R 336.1213(4)(c))**
4. The permittee shall submit to on a quarterly basis to AQD a report identifying each day in which any emission limit, operational requirement, or recordkeeping requirement as specified in Exhibits A or B of SIP No. 27-1993 was not met. This report shall for each instance explain the reason that the emission limit, operational requirement, or recordkeeping requirement was not met, the duration of the event, the remedial action taken, and a description of the steps which were taken to prevent a recurrence. These reports shall be submitted within 30 days following the end of the calendar quarter in which the data were collected.  
**(SIP No. 27-1993, Paragraph 11)**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. Conditions under which cleaning or water suppression maybe suspended:
  - A. When daytime temperatures are below 32 degrees F and/or freezing on roadway surfaces poses a hazard.
  - B. When precipitation in any form during the previous 24-hour period has exceeded 0.1 inches or current precipitation obviates the need for control.
  - C. Control measures are also suspended during the non-control season from November through February.
  - D. If an extended period of sub-freezing weather occurs under conditions where there is no snow or ice cover and if roadway surface loadings become excessive, a vacuum sweeper will be called in. Therefore, the implementation of this action will be discretionary by the Manager, Environmental.  
**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 4)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-USS-MAIN-FUG-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any fugitive dust source at the Main Plant and 80" Hot Strip Mill

**Emission Units:** EUMAINPLANT-FUG-DUST, EU80MILL-FUG-DUST

**POLLUTION CONTROL EQUIPMENT**

SIP CO No. 27-1993 Fugitive Dust Control Plan requirements.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	5% opacity	3-minute average <sup>a,b</sup>	Fugitive dust emissions from any road, lot, storage pile, or material handling activity at a storage pile	VI.1,2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)
2. Fugitive Dust	20% opacity	3-minute average <sup>a</sup>	Fugitive dust emissions from any other source	VI.1,2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)

<sup>a</sup>in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

<sup>b</sup>The provisions of this subsection shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour (40.2 kilometers per hour)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

The permittee shall comply with the following source descriptions and control measures:

**A. PAVED ROADS**

1. Paved roads are water flushed. Roadway Nos. 526 and 527, which serve the BOP area, and Nos. 528, 529 and 518, which are used by the Levy Company to haul BOP slags, etc., will be vacuum swept in addition to being water flushed.

2. Cleaning Equipment Description:

- a) Water Flushing – A water truck (approximately 3000 gallon capacity) with a three-way water piping system for high pressure discharge. A hydraulic pump, powered by the vehicle engine via a power take-off drive, assures constant water discharge pressure independent of vehicle speed.
- b) Vacuum Sweeping – An industrial road sweeper wets, sweeps and vacuums in one traverse. An on-board water tank supplies the wetting water for the front spray bar, and directly behind the flush bars are two rotary brooms which sweep the road surface washings toward the center of the road sweeper. A vacuum spout draws the swept washings into the debris tank mounted on the truck.

3. Frequency and Application Rate:

- a) Frequency of water flushing is once a day, five days a week.
- b) The frequency of vacuum sweeping of the roads listed in Paragraph V(A)(1) above is once a week. This sweeping is in addition to the water flushing program specified in Paragraph V(A)(3)(a) above.
- c) Application rate for water flushing is 5 gal/100 sq. ft.

B. UNPAVED ROADS

1. All unpaved roads will be treated with asphalt emulsion, petroleum resin, or an acrylic cement.
2. Road Pro or an equivalently effective asphalt emulsion petroleum resin or acrylic cement, will be used as a chemical dust suppressant. The dilution ration is 7 parts water/1 part suppressant.
3. Application Intensity – The application rate will be 0.83 gal. solution / sq. yd.
4. The unpaved roads listed in Table 13 will be treated once every month, unless weather conditions preclude treatment. All unpaved roads not listed in Table 13 will be treated once per quarter, unless weather conditions preclude treatment.

C. PAVED and UNPAVED PARKING LOTS

1. Paved lot accesses are water flushed once a day, five (5) days per week.
2. An asphalt emulsion, petroleum resin, or acrylic cement will be applied to unpaved parking lots and unpaved parking lot accesses. The unpaved lots listed in Table 13, and any associated unpaved accesses, will be treated once every month, unless weather conditions preclude treatment. All unpaved lots not listed in Table 13, and any associated accesses will be treated once per quarter, unless weather conditions preclude treatment.
3. The dilution ratio and application rate are the same as for unpaved roads. The application rate for water flushing is five (5) gal./100 sq. ft.

D. Transportation of Bulk Materials

1. Each material unloaded and transported which is a result of collection by pollution control equipment is completely contained by one or more of the following methods:
  - a) Enclosed truck
  - b) Screw conveying
  - c) Elephant truck
2. Raw material with silt content > 1% received and transported are contained by one or more of the following methods:
  - a) Enclosed truck
  - b) Enclosed hoppers
  - c) Pneumatic truck
3. Observations of transportation of bulk materials are made five (5) times a week and recorded in the journal log book.

(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 3)

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-S1

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall inspect the roads and lots on a daily basis, 5 days a week, during control season and once a week during the non-control season and shall keep a record in a journal log book of the following for at least two years:
  1. Date
  2. Time
  3. Weather conditions
  4. Observations of roadway and lot conditions
  5. Control Activities
    - a. Recently completed activities
    - b. Actions requiring implementation

**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 5)**
2. The permittee shall record on a daily basis the treatment information for the fugitive dust sources using the format specified in Appendix 4.

**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 5 and ADDENDUM)**
3. Vehicle speeds are restricted to 15 mph at all times and shall be monitored by GLS Security.

**(SIP Consent Order No. 27-1993, Exhibit A, Paragraph 5,C)**

See Appendices 3-S1 and 4-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
4. The permittee shall submit to on a quarterly basis to AQD a report identifying each day in which any emission limit, operational requirement, or recordkeeping requirement as specified in Exhibits A or B of SIP No. 27-1993 was not met. This report shall for each instance explain the reason that the emission limit, operational requirement, or recordkeeping requirement was not met, the duration of the event, the remedial action taken,

and a description of the steps which were taken to prevent a recurrence. These reports shall be submitted within 30 days following the end of the calendar quarter in which the data were collected.

**SIP No. 27-1993, Paragraph 11**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. Conditions under which cleaning or water suppression may be suspended:
  - a. When daytime temperatures are below 32 degrees F and/or freezing on roadway surfaces poses a hazard.
  - b. When precipitation in any form during the previous 24-hour period has exceeded 0.1 inches or current precipitation obviates the need for control.
  - c. Control measures are also suspended during the non-control season from November through February.
  - d. If an extended period of sub-freezing weather occurs under conditions where there is no snow or ice cover and if roadway surface loadings become excessive, a vacuum sweeper will be called in. Therefore, the implementation of this action will be discretionary by the Manager, Environmental.

**SIP Consent Order No. 27-1993, Exhibit A, Paragraph 4)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-NEWRICE>500 hp-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

New emergency generators greater than 500 hp and subject to the RICE MACT (40 CFR Part 63 Subpart ZZZZ)

**Emission Unit:** EU-EMERGENCYGEN 1-S1, EU-EMERGENCYGEN 2-S1, EU-EMERGENCYGEN 4-S1, EU-EMERGENCYGEN 5- S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only fire the emission units in FG-NEWGRICE>500hp-S1 with diesel fuel that meets the following per-gallon standards within 40 CFR 80.510(b) for nonroad diesel fuel:
  - a. a maximum sulfur content of 15 parts per million by weight; **(40 CFR 63.6604(c), 40 CFR 80.510(b))**
  - b. either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. **40 CFR 63.6604(c), 40 CFR 80.510(b)(2)(i) and (ii)**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply at all times. **(40 CFR 63.6605)**
2. At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605)**
3. The permittee must operate the emergency stationary RICE according to the requirements below. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) below, is prohibited. If the permittee do not operate the engine according to the requirements in paragraphs (1) through (3) below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
  - (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - (2) The permittee may operate the permittee r emergency stationary RICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this section for a maximum of 100 hours per calendar

year. Any operation for non-emergency situations as allowed by paragraphs (3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (2).

- (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
  - (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f))**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. Permittee must install a non-resettable hour meter for each emission unit of FG-NEWGRICE>500hp-S1 if one is not already installed. **(R 336.1213(3))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S1

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall monitor and record the monthly fuel usage in gallons. **(R 336.1213(3)(b))**
2. The permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. **(R 336.1213(3))**
3. For each emission unit of FG-NEWGRICE>500 hp-S1, the permittee shall keep records of the operation of the emission unit in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the emission unit and the reason the emission unit was in operation during that time. **(R 336.1213(3))**

See Appendices 3-S1, 4-S1, and/or 7-S1

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S1

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup> This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**FG-EXISTINGRICE<500hp-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

Existing emergency generators less than 500 hp and subject to RICE MACT (40 CFR Part 63 Subpart ZZZZ)

**Emission Unit:** EU EMERGENCY GEN 3-S1, EU EMERGENCY GEN 8-S1, EU EMERGENCY GEN 9-S1

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only fire the emission units in FG-EXISTINGRICE<500hp-S1 with diesel fuel that meets the following per-gallon standards within 40 CFR 80.510(b) for nonroad diesel fuel:
  - a. a maximum sulfur content of 15 parts per million by weight; **(40 CFR 63.6604(c), 40 CFR 80.510(b))**
  - b. either a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 63.6604(c), 40 CFR 80.510(b)(2)(i) and (ii))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. Except during periods of startup, permittee must meet the following requirements:
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first.
  - b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. **(40 CFR 63.6602, Table 2c)**
2. Permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d of 40 CFR part 63 Subpart ZZZZ apply. **(40 CFR 63.6602, Table 2c)**
3. The permittee has the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Condition III.1 . **(40 CFR 63.6602, Table 2c)**
4. Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to the permittee at all times. **(40 CFR 63.6605)**
5. At all times permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control

practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6605)**

6. Permittee must operate the emergency stationary RICE according to the requirements in paragraphs (1) through (3). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) is prohibited. If the permittee do not operate the engine according to the requirements in paragraphs (1) through (3) the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
  - (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - (2) The permittee may operate the permittee r emergency stationary RICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) counts as part of the 100 hours per calendar year allowed by this paragraph (2).
    - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
    - (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
    - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
  - (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. Permittee must install a non-resettable hour meter for each emission unit of FG-EXISTINGRICE<500hp-S1 if one is not already installed. **(40 CFR 63.6625(f))**
2. Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions **(40 CFR 6625(e))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S1

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Permittee must keep records of the hours of operation of each engine of FG-EXISTINGRICE<500 hp that is recorded through the non-resettable hour meter. Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.**(40 CFR 63.6655)**
2. The permittee shall monitor and record the monthly fuel usage in gallons. **(R 336.1213(3)(b))**
3. The permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank, of fuel oil. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. **(R 336.1213(3))**
4. The permittee shall keep records to demonstrate compliance with Condition III.1 **(R 336.1213(3))**  
**See Appendices 3-S1, 4-S1, and/or 7-S1**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. **(40 CFR 63.6602, Table 2c footnote)**

See Appendix 8-S1

## **VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>FG-COLD CLEANERS-S1 FLEXIBLE GROUP CONDITIONS</b>
--

**DESCRIPTION**

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

**Emission Unit:** EUCOLDCLEANER

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**
2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The cold cleaner must meet one of the following design requirements:
  - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(h))**
  - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
  - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
  - b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
  - c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

## **V. TESTING/SAMPLING**

NA

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**
2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
  - a. A serial number, model number, or other unique identifier for each cold cleaner.
  - b. The date the unit was installed, manufactured or that it commenced operation.
  - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(h).
  - d. The applicable Rule 201 exemption.
  - e. The Reid vapor pressure of each solvent used.
  - f. If applicable, the option chosen to comply with Rule 707(2).
3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**
4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

**FG-RULE 287(c)-S1  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

**Emission Unit:** EUPAINTBOOTH

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(c)(i)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system. **(R 336.1287(c)(ii))**

**V. TESTING/SAMPLING**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**
  - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(c)(iii))**
  - b. Documentation of any filter replacements for exhaust systems serving coating spray equipment. **(R 336.1213(3))**

**See Appendix 4-S1**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S1**

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

## **E. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

## APPENDICES

### Appendix 1-S1: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

**Appendix 2-S1. Schedule of Compliance**

The permittee certified in this ROP application that this stationary source is in compliance with all applicable requirements of this ROP. However, the permittee is allegedly in non compliance with EUCON-GALVLINE-S1, I.1, I.2, I.3, I.4, and III.5. As a result, the permittee was required to submit a Schedule of Compliance as defined in Rule 119(a), pursuant to Rule 210(2) and Rule 213(4).

A Schedule of Compliance for any applicable requirements that the permittee is not in compliance with at the time of the ROP issuance is supplemental to, and shall not sanction non-compliance with, the underlying applicable requirements on which it is based.

The permittee shall adhere to this schedule of compliance and submit the required certified progress reports accordingly.

**Compliance Plan**

The permittee outlined the details of achieving compliance in a narrative compliance plan. The details of the compliance plan are outlined below.

As reflected in the Schedule of Compliance below, the permittee shall implement corrective measures to comply with NOx limits and incorporate those measures into an enforceable Consent Order and the Renewable Operating Permit.

**Schedule of Compliance**

The following schedule of compliance conforms to the provisions of Rule 119(a) and Rule 213(4).

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action	Milestone Date	Progress Reports
EUCON-GALV-LINE-S1		Compliance with hourly and yearly nitrogen oxide and NOx limits from the annealing furnace and the annealing furnace and edge burners combined	Submit a complete permit modification application for the CGL  Certified Progress report    Incorporate revised PTI conditions and any other applicable measures in to a Consent Order  Submit application to modify the ROP in accordance with the requirements of R 336.1216	May 30, 2014  Submit monthly progress report within 3 months of ROP issuance if PTI has not been issued  Within 30 days of PTI issuance  Within 60 calendar days of the effective date of the Consent Order	

### **Progress Reports**

The permittee shall submit Certified Progress Reports to the appropriate AQD District Supervisor using the MDEQ Report Certification form (EQP 5736). Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor. **(R 336.1213(4)(b))**

Progress reports shall contain the following information:

The projected dates for achieving scheduled activities, milestones or compliance as required in the schedule of compliance. **(R 336.1213(4)(b)(i))**

The actual dates that the activities, milestones, or compliance are achieved. **(R 336.1213(4)(b)(i))**

An explanation of why any dates in the schedule of compliance were not or will not be met. **(R 336.1213(4)(b)(ii))**

A description of any preventative or corrective measures adopted in order to ensure that the schedule of compliance is met. **(R 336.1213(4)(b)(ii))**

### **Appendix 3-S1. Monitoring Requirements**

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

### **Appendix 4-S1. Recordkeeping**

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in Section VI. Monitoring/Recordkeeping of FG-USS-ZUG-FUG, and FG-USS-MAIN-FUG. Alternative formats must be approved by the AQD District Supervisor.

#### **Required Records for Fugitive Dust Sources**

- A. Unpaved Roads / Lots
  - 1. Date of Treatment
  - 2. Control Measure Used
  - 3. Responsible Person's Initial
  - 4. Name of Product Applied
  - 5. Amount of Solution / Water Applied
  - 6. Dilution Ratio
  - 7. Road Segment / Lot Identification
  
- B. Paved Roads / Lots
  - 1. Date of Treatment
  - 2. Control Measure Used
  - 3. Responsible Person's Initial
  - 4. Road Segment / Lot Identification
  
- C. Storage Piles / Material Handling
  - 1. Date of Treatment
  - 2. Control Measure Used
  - 3. Responsible Person's Initial
  - 4. Dilution Ratio
  - 5. Amount of Dust Suppressant / Water Applied
  - 6. Identification of Pile / Material Handling Operation Treated
  - 7. Equipment Used

- D. Optional Records
1. Precipitation
  2. Temperature
  3. Wind Direction and Velocity

**Appendix 5-S1. Testing Procedures**

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 6-S1. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600132.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
219-06	Galvanizing line	EUCON-GALV-LINE
96-12	Iron Ore Screening	EUFIXEDSCREEN, EUPORTABLE1, EUPORTABLE2, EUSCREENYARD

**Appendix 7-S1. Emission Calculations**

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable emission limitations.

**1. Combustion Emissions**

**A. Coke Oven Gas combustion**

1. SO<sub>2</sub> emissions due to COG combustion at EUBHZI1-1-BOILER-S1, EUBHZI1-2-BOILER-S1, EUBHZI1-3-BOILER-S1, EUBHZI1-4-BOILER-S1, EUBHZI1-5-BOILER-S1, EUBHZI2-1-BOILER-S1, EUBHZI2-2-BOILER-S1, EUBHZI2-3-BOILER-S1, EUBHZI2-4-BOILER-S1, EUBHZI2-5-BOILER-S1, EUBHMP-1-8-S1, EUBHMP-1-9-S1 and EU80MILLFURNCS-S1 emissions shall be determined as follows:

$$\text{SO}_2 \text{ emission rate (lb)} = \text{COG (ft}^3) * \text{H}_2\text{S (gr/ft}^3) * (1 \text{ lb} / 7,000 \text{ gr}) * (64 \text{ lb SO}_2 / 34 \text{ lb H}_2\text{S})$$

Where:

COG = actual volume of coke oven gas consumed in cubic feet per time period.

H<sub>2</sub>S = actual concentration of hydrogen sulfide in the coke oven gas in grains per cubic foot.

**B. Blast Furnace Gas combustion**

Typical blast furnace gas heating values are approximately 75-90 Btu per cubic foot. PM, PM<sub>10</sub> and NO<sub>x</sub> emissions will be determined using the default factors until stack testing is conducted.

1. PM and PM<sub>10</sub> emissions due to BFG combustion at EUBHZI1-1-BOILER-S1, EUBHZI1-2-BOILER-S1, EUBHZI1-3-BOILER-S1, EUBHZI1-4-BOILER-S1, EUBHZI1-5-BOILER-S1, EUBHZI2-1-BOILER-S1, EUBHZI2-2-

BOILER-S1, EUBHZI2-3-BOILER-S1, EUBHZI2-4-BOILER-S1, EUBHZI2-5-BOILER-S1, EUBLAST-FCE-A1-S1, EUBLAST-FCE-B2-S1 and EUBLAST-FCE-D4-S1 emissions shall be determined as follows:

Blast Furnace Gas Combustion PM and PM <sub>10</sub> emission rate (lb/MMBtu)	=	0.0322 lb per million British Thermal Units or most recent stove stack test results
Annual Blast Furnace Gas Combustion PM and PM <sub>10</sub> emissions (tons/12-month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12} \text{BFG (lb/MMBtu)} \times \text{BFG (ft}^3\text{)} \times \text{HV (Btu/ft}^3\text{)}$ <p>BFG (lb/MMBtu) = the Blast Furnace Gas emission rates from above BFG (ft<sup>3</sup>) = the Blast Furnace Gas used during calendar month i HV = the Blast Furnace Gas heating value as measured</p>

PM<sub>10</sub> emissions due to BFG combustion are set equal to 100 percent of PM.

1. NO<sub>x</sub> emissions due to BFG combustion at EUBHZI1-1-BOILER-S1, EUBHZI1-2-BOILER-S1, EUBHZI1-3-BOILER-S1, EUBHZI1-4-BOILER-S1, EUBHZI1-5-BOILER-S1, EUBHZI2-1-BOILER-S1, EUBHZI2-2-BOILER-S1, EUBHZI2-3-BOILER-S1, EUBHZI2-4-BOILER-S1, EUBHZI2-5-BOILER-S1, EUBLAST-FCE-A1-S1, EUBLAST-FCE-B2-S1 and EUBLAST-FCE-D4-S1 emissions shall be determined as follows:

Blast Furnace Gas Combustion NO <sub>x</sub> emission rate (lb/MMBtu)	=	0.256 lb per million British Thermal Units or most recent stove stack test results
Annual Blast Furnace Combustion NO <sub>x</sub> emissions (tons/12-month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12} \text{BFG (lb/MMBtu)} \times \text{BFG (ft}^3\text{)} \times \text{HV (Btu/ft}^3\text{)}$ <p>BFG (lb/MMBtu) = the Blast Furnace Gas emission rate from above BFG (ft<sup>3</sup>) = the Blast Furnace Gas used during calendar month i HV = the Blast Furnace Gas heating value as measured</p>

**C. Natural Gas combustion**

Unless otherwise specified in the in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions, emissions due to natural gas combustion shall be determined using the appropriate AP-42 emission factors based on the size and function of the specific combustion unit.

**2. Process emissions for FGBLASTFURNACES**

For purposes of demonstrating compliance with the emission limitations for FGBLASTFURNACES, baghouse stack and fugitive casthouse emissions shall be calculated for each blast furnace operation and summed. The emissions for each blast furnace operation shall then be summed. Baghouse and fugitive casthouse emissions shall be determined as follows:

**A. Baghouse Emissions**

Baghouse PM<sub>10</sub> emissions are set equal to 100 percent of PM.

Baghouse emissions are based on the reported manufacturer's guaranteed emission rates in pounds per dry standard cubic foot, multiplied by the measured exhaust flow rates for each of the three blast furnaces. These values will be used as a default until stack testing is conducted. Baghouse PM<sub>10</sub> values are set equal to 100 percent of PM.

Baghouse PM and PM <sub>10</sub> emission rates (lb/ton iron)	=	0.0908 lb per ton of iron produced, for EU-"A" Blast 0.0505 lb per ton of iron produced, for EU-"B" Blast 0.0433 lb per ton of iron produced, for EU-"D" Blast or most recent baghouse stack test results
Annual Baghouse PM and PM <sub>10</sub> emissions (tons/12 month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12} BH \text{ (lb/ton iron)} \times \text{Iron Produced}_i \text{ (tons)}$  BH = the Baghouse emission rates from above, in lb/ton iron Iron Produced <sub>i</sub> = the iron production during calendar month i, in tons

**B. Fugitive (Roof Monitor) Emissions**

Fugitive emissions are estimated based on an assumed 96% capture efficiency of the casthouse emission control system (CECS) collection hood. The CECS consists of a collection hood followed by a baghouse. Fugitive emissions, those not collected by the CECS, are vented from the roof monitor vents. Fugitive emission values are based on the calculated/measured baghouse emission rates determined above following the equation listed below using an assumed 98% BHCE. Fugitive PM<sub>10</sub> values are set equal to 60 percent of PM.

Roof Monitor PM emission rate (lb/ton iron)	=	0.1892 lb per ton of iron produced, for EU-"A" Blast 0.1052 lb per ton of iron produced, for EU-"B" Blast 0.0902 lb per ton of iron produced, for EU-"D" Blast or as calculated from most recent baghouse stack test results
Roof Monitor PM <sub>10</sub> emission rate (lb/ton iron)	=	0.1135 lb per ton of iron produced, for EU-"A" Blast 0.0631 lb per ton of iron produced, for EU-"B" Blast 0.0541 lb per ton of iron produced, for EU-"D" Blast or as calculated from most recent baghouse stack test results
PM = $\frac{\text{Baghouse PM} \times 0.04}{0.96 \times (1 - 0.98)}$		PM <sub>10</sub> = $\frac{\text{Baghouse PM}_{10} \times 0.60 \times 0.04}{0.96 \times (1 - 0.98)}$
Annual Roof Monitor PM and PM <sub>10</sub> emissions (tons/12 month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12} RM \text{ (lb/ton iron)} \times \text{Iron Produced}_i \text{ (tons)}$  RM = the Roof Monitor emission rate from above, in lb/ton iron Iron Produced <sub>i</sub> = the iron production during calendar month i, in tons

**Appendix 8-S1. Reporting**

**A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

The permittee shall use the following approved formats and procedures for the reporting requirements referenced in FGICKLE-MACT. Alternative formats must be approved by the AQD District Supervisor.

63.10(d)(5)(ii)

The permittee shall report the actions taken during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, the permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after end of the event. The immediate

report required under this paragraph shall consist of a telephone call or fax transmission to the AQD District Supervisor within 2 working days after commencing actions inconsistent with the plan, and shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

## **Appendix 9-S1**

### **FUGITIVE DUST CONTROL PLAN - Iron Ore Pellet Screening Operations**

#### **Purpose**

This plan describes all the fugitive dust sources and the control measures and operating procedures that can be used to minimize fugitive dust for the U. S. Steel screening operations. U. S. Steel will implement this plan to minimize fugitive dust and to ensure that visible emissions from the associated activities do not exceed the permitted opacity standard. If necessary, U. S. Steel may update this plan and submit it to the AQD District Supervisor for review and approval.

#### **Scope**

U. S. Steel maintains a separate fugitive dust plan for the Great Lakes Works facility which addresses controls and practices for various sources of fugitive dust. The following plan supplements it by addressing sources of fugitive dust emissions which are specific to the Iron Ore Screening Operation.

#### **Process Description**

The equipment consists of a fixed screening station located on the north end of No. 3 Ore Dock, two portable screeners, and conveyors and stackers to handle the material. The fixed screening station is electrically powered and supplies screened pellets to the Ore Jenny (a railcar loading station), the B2 Blast Furnace Conveyor, and/or a screened pellet storage pile. The two portable screening stations are diesel powered. The screening and handling equipment will be installed with enclosures that will reduce particulate emissions.

#### **Fugitive Dust Source Categories and Control Measures**

Unpaved Roads – There is one defined unpaved road connecting #5/6 yards with #3 ore dock where the fixed screener is located. Pellets are moved from #5/6 yards to #3 ore dock for screening by front-end loaders, dump trucks, or equivalent. The following control methods will be utilized:

1. All unpaved roads will be treated with dust suppressant.
2. The unpaved roads will be treated as necessary, at least once per month, from March to October (inclusive), unless wet weather conditions preclude treatment or freezing conditions present a hazard.

Storage Piles – Storage piles containing iron ore pellets for use in the manufacturing of iron are stored outside throughout the year. Front-end loaders move material in and out of these piles as needed for storage and usage. Stacker booms are utilized to load storage piles when appropriate.

- 1) Where front-end loaders are used to load or unload storage piles, the loader bucket is emptied in a manner that minimizes drop distance to the receiving storage pile or truck bed to the extent practicable.
- 2) Where conveyor stacker booms are used to load storage piles, the booms are operated in a manner that minimizes the drop distance to the receiving storage pile to the extent practicable.
- 3) Vehicle exhaust is directed upwards to prevent direct contact with storage piles.
- 4) Pellet fines from the fixed screening station are collected in an enclosed bin rather than a storage pile. This bin is emptied into a dump truck for transportation via a partially enclosed material loading area.

Transportation of Bulk Materials – Materials are moved onsite for the screening operation in a variety of ways, including: dump trucks, front-end loaders, and conveyors.

- 1) When Iron Ore Pellets or Fines are transported in trucks, adequate freeboard is maintained to prevent material spillage onto roadways.
- 2) Truck bodies are inspected to insure integrity and prevent material spillage.
- 3) Vehicles are limited to a maximum speed of 15 mph.
- 4) Full and/or partial enclosures are used to control emissions from transfer points between conveyors and screening beds at the fixed screening station and the portable screening stations.

**Effectiveness Monitoring**

- 1) Visible emissions will be evaluated in accordance with the follow permit conditions:
  - a. For EUFIXEDSCREEN SC VI.3 and VI.4
  - b. For EUSCREENYARD SC VI.1 and VI.2
  - c. For FGPORTABLE SC SVI.3 and VI.4

**Correction Action**

Upon observation of visible emissions exceeding permitted limits, the permittee shall initiate corrective action.

**5/5/14 DRAFT**

**STATE OF MICHIGAN  
RENEWABLE OPERATING PERMIT**

**SECTION 2**

DELRAY CONNECTING RAILROAD  
COMPANY  
SRN: A7809

LOCATED AT

7109 WEST JEFFERSON  
DETROIT, MI 48209

## **A-S2. GENERAL CONDITIONS**

### **Permit Enforceability**

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state only enforceable Source-wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### **General Provisions**

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. 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 conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### **Emission Limits**

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### **Testing/Sampling**

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(4))**

### **Monitoring/Recordkeeping**

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
- The date, location, time, and method of sampling or measurements.
  - The dates the analyses of the samples were performed.
  - The company or entity that performed the analyses of the samples.
  - The analytical techniques or methods used.
  - The results of the analyses.
  - The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

### **Certification & Reporting**

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
  - a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## **Permit Shield**

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
  - a. The applicable requirements are included and are specifically identified in the ROP.
  - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

**Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. <sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. <sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. <sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. <sup>2</sup> **(R 336.1201(4))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B-S2. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

**C-S2. EMISSION UNIT CONDITIONS**

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-DELRAY-COKESCR-S2	Coke Screening Operations	4/01/94	FG-DELRAY-COKES&H-S2
EU-DELRAY-COKEHAN-S2	Coke Handling Operations	4/01/94	FG-DELRAY-COKES&H-S2
EU-DELRAY-PORTSCREENS1&2-S2	All existing portable screen machines, including the 6203 Horizon and 615 Keestrack Pioneer machines that are exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	3/01/03 3/01/07	FG-DELRAY-RULE290-S2
EU-RULE290-S2	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	NA	FG-DELRAY-RULE290-S2

**EU-DELRAY-COKESCR-S2  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

The Coke Screening Operation includes the fixed screen machine, conveyors, unscreened coke, furnace coke, nut coke, and coke breeze.

**Flexible Group ID:** FG-DELRAY-COKES&H-S2

**POLLUTION CONTROL EQUIPMENT:**

Cover for conveyors

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	5% opacity	3-minute average <sup>a,b</sup>	Fugitive dust from any road, lot, storage pile, or material handling activity at a storage pile	VI.2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)
2. Fugitive Dust	20% opacity	3-minute average <sup>a</sup>	Fugitive dust from any other source	VI.2&3	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)

<sup>a</sup>in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

<sup>b</sup>The provisions of this subsection shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour (40.2 kilometers per hour).

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Coke	150,000 tons per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EU-DELRAY-COKESCR-S2	VI.1	R 336.1205, 40 CFR 52.21(c) and (d)

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate the Coke Screening Operation unless the stacking conveyors for screened coke breeze, furnace coke, and nut coke have the covers installed, fastened on them securely, and maintained in good working order. **(R 336.1371)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S2

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. Permittee shall keep monthly and 12 month rolling records of the tons of coke screened. **(R 336.1201(3), R 336.1213(3))**
2. The permittee shall perform a non-certified visible emission observation of the coke screening operation at least once a week during coke screening activity. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**
3. The permittee shall perform a Method 9 certified visible emission observation of the coke screening operations at least once per month during coke screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**

See Appendices 3-S2, 4-S2, and/or 7-S2

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-S2

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

- <sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**EU-DELRAY-COKEHAN-S2  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

The Coke Handling Operation includes the coke handling & storage and roadway & parking lot emissions.

**Flexible Group ID:** FG-DELRAY-COKES&H-S2

**POLLUTION CONTROL EQUIPMENT:**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	5% opacity	3-minute average <sup>a,b</sup>	Fugitive dust from any road, lot, storage pile, or material handling activity at a storage pile	VI.1&2	<b>Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)</b>
2. Fugitive Dust	20% opacity	3-minute average <sup>a</sup>	Fugitive dust from any other source	VI.1&2	<b>Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)</b>

<sup>a</sup>in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

<sup>b</sup>The provisions of this subsection shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour (40.2 kilometers per hour).

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

NA

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

**See Appendix 5-S2**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall perform a non-certified visible emission observation of the coke handling and storage operations at least once a week during coke handling and storing activity. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**
2. The permittee shall perform a Method 9 certified visible emission observation of the coke handling and storage operations at least once a month during coke handling and storing activity using Reference Method 9d. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. **(R 336.1213(3))**

**See Appendices 3-S2, 4-S2, and/or 7-S2**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S2**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

**D-S2. FLEXIBLE GROUP CONDITIONS**

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-DELRAY-COKES&H-S2	Coke screening and coke handling processes under Delray Connecting Railroad Company	EU-DELRAY-COKESCR-S2 EU-DELRAY-COKEHAN-S2
FG-DELRAY-RULE290-S2	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EU-DELRAY-PORTSCREENS1&2-S2 EU-RULE290

**FG-DELRAY-COKES&H-S2  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION:**

Coke screening and handling operations and associated fugitive dust control measures per R336.1371 and SIP CO 8-1993.

**Emission Units:** EU-COKESCR-S2, EU-COKEHAN-S2

**POLLUTION CONTROL EQUIPMENT:**

Covers for conveyors, fugitive dust measure implemented in this FLEXGROUP and Appendix 4-S2

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not process any asbestos or asbestos containing waste materials, as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations in the EU-DELRAY-COKESCR and EU-DELRAY-COKEHAN. **(40 CFR Part 61 Subpart M, R 336.1201(3))**
2. The permittee shall not operate EU-DELRAY-COKESCR and EU-DELRAY-COKEHAN unless the approved fugitive dust control plan (Plan), in Appendix 4-S2, has been implemented and is maintained. Alternate formats or revisions to the approved Plan must be approved by the AQD District Supervisor. **(R 336.1371, R 336.1201(3))**
3. The paved roads must be flushed with water twice per week, paved lots must be flushed with water monthly, and paved open areas must be flushed with water four times per year<sup>2</sup>. **(R 336.1371)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

See Appendix 5-S2

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record the treatment information for the fugitive dust sources using the format specified in Appendix 4-S2. **(SIP Consent Order No. 8-1993, Exhibit A, Paragraph D (Note) and ADDENDUM) , R 336.1213(3))**

**See Appendices 3-S2, 4-S2, and/or 7-S2**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit to AQD on a quarterly basis a report identifying each day in which any emission limit, operational requirement, or recordkeeping requirement as specified in Exhibits A or the Addendum of SIP No. 8-1993, Revised 9/9/94, was not met. This report shall, for each instance, explain the reason that the emission limit, operational requirement, or recordkeeping requirement was not met, the duration of the event, the remedial action taken, and a description of the steps which were taken to prevent a recurrence. These reports shall be submitted within 30 days following the end of the calendar quarter in which the data were collected. **(SIP No. 8-1993, Revised 9/9/94, Paragraph 11)**

**See Appendix 8-S2**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
NA	NA	NA	NA

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the following source descriptions and control measures:
  - A. Control Methods:
    1. Paved Roads - Paved roads are vacuum swept twice weekly.
    2. Unpaved Roads - Unpaved road C-D will be treated with asphalt emulsion, petroleum resin, or acrylic cement, once every two months. Unpaved road E-F will be treated once every three months.
    3. Paved Parking Lots – Paved lots will be vacuum swept once each week.
    4. Unpaved Parking Lots - Unpaved lots will be treated with asphalt emulsion, petroleum resin, or acrylic cement, once every two months.

**B. Cleaning Equipment Description:**

1. Vacuum Sweeper – Ford, CT 8000, Tandem Axle Truck with Vac All, Industrial Wet Vac Unit.

Sweeper description:

- a. Two gutter brooms with sprays.
- b. Two four foot nozzles.
- c. Deflector broom (parallel to frame of truck)
- d. Anterior spray bar, width of truck.
- e. Water injection collar on vacuum nozzle.

2. Dust Suppressant – Tandem axle truck with eight foot spray bar on back of truck.

- a. Dilution ratio – 7:1 ( water :chemical)
- b. Application rate – 0.1 gallons concentrate/sq. yd.
- c. Rate – 0 to 400 GPM at 0 to 100 psi.

**C. Other Considerations:**

1. All techniques to be implemented as scheduled during the months of April through November. During the months of November through March, treatment will be weather and need dependent.

**(SIP Consent Order No. 8-1993, Exhibit A, Paragraph 3)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

<b>FG-DELRAY-RULE290-S2</b> <b>FLEXIBLE GROUP CONDITIONS</b>
---

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

**Emission Unit:** EU-DELRAY-PORTSCREENS1&2-S2

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(i))**
2. Each emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(a)(ii))**
  - a. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively. **(R 336.1290(a)(ii)(A))**
  - b. For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 microgram per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(B))**
  - c. For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(a)(ii)(C))**
  - d. The emission unit shall not emit any air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(a)(ii)(D))**
3. Each emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under Rule 290(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: **(R 336.1290(a)(iii))**

- a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(a)(iii)(A))**
- b. The visible emissions from the emission unit are not more than five percent opacity in accordance with the methods contained in Rule 303. **(R 336.1290(a)(iii)(B))**
- c. The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(a)(iii)(C))**

## **II. MATERIAL LIMIT(S)**

NA

## **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**

## **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

## **V. TESTING/SAMPLING**

NA

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 290, Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
  - a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
  - b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**
  - c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
  - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(a)(ii) and (iii). **(R 336.1213(3))**
  - e. Material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. **(R 336.1213(3), R 336.1290(c))**
2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
  - a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(b), R 336.1213(3))**
  - b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**
3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

**See Appendix 4-S2**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

**See Appendix 8-S2**

**VIII. STACK/VENT RESTRICTION(S)**

NA

**IX. OTHER REQUIREMENT(S)**

NA

## **E-S2. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that the requirements identified in the table below are not applicable to the specified emission unit(s) and/or flexible group(s). This determination is incorporated into the permit shield provisions set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii). If the permittee makes a change that affects the basis of the non-applicability determination, the permit shield established as a result of that non-applicability decision is no longer valid for that emission unit or flexible group.

**APPENDICES**

**Appendix 1-S2: Abbreviations and Acronyms**

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

## **Appendix 2-S2. Schedule of Compliance**

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. **(R 336.1213(4)(a), R 336.1119(a)(ii))**

## **Appendix 3-S2. Monitoring Requirements**

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

## **Appendix 4-S2. Recordkeeping**

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in FG-DELRAY-COKES&H-S2, Special Condition VI. 1. Alternative formats must be approved by the AQD District Supervisor.

### **4.1-S2 Required Records for Fugitive Dust Sources per SIP CO 8-1993**

- A. Unpaved Roads / Lots
  1. Date of Treatment
  2. Control Measure Used
  3. Responsible Person's Initial
  4. Name of Product Applied
  5. Amount of Solution / Water Applied
  6. Dilution Ratio
  7. Road Segment / Lot Identification
  
- B. Paved Roads / Lots
  1. Date of Treatment
  2. Control Measure Used
  3. Responsible Person's Initial
  4. Road Segment / Lot Identification
  
- C. Storage Piles / Material Handling
  1. Date of Treatment
  2. Control Measure Used
  3. Responsible Person's Initial
  4. Dilution Ratio
  5. Amount of Dust Suppressant / Water Applied
  6. Identification of Pile / Material Handling Operation Treated
  7. Equipment Used
  
- D. Optional Records
  1. Precipitation
  2. Temperature
  3. Wind Direction and Velocity

### **4.2-S2 Fugitive Dust Control Plan per Rule 336.1371**

- I. Site Roadways / Plant Yard
  - A. The dust on the site roadways/plant yard will be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Application will be on a weekly basis or more frequently if needed.

- B. Truck areas in and around the maintenance facility shall be paved.
- C. All roadways / plant yard shall be swept as needed between applications.
- D. A record of all applications and sweeping shall be kept on file and made available upon request to the Division.
- E. Speed of vehicles will be posted and limited to 10 mph.
- F. Any material spillage on roads shall be removed immediately.

II. Process

- A. All transfer points will have minimal drop distances: 1) Not more than 4 feet during dumping of coke onto the stockpile during truck unloading, 2) Elevation of fixed conveyors shall be maintained at maximum height of 35 feet.
- B. The stacking conveyors for screened coke breeze, nut coke, and furnace coke shall be covered securely and well maintained. Transfer points shall be inspected daily to ensure screen discharge end is properly aligned onto receiving conveyors and/or stackers.
- C. The screen and surrounding area shall be inspected and cleaned for material accumulation at the completion of each working production day.
- D. When wind speed is greater than 25 miles per hour, the operation of coke screening, load-in and load-out, and other material handling activities shall be suspended.
- E. Appropriate spare parts, that will allow for immediate repairs to be done, shall be kept on the premises.
- F. A list of appropriate suppliers of parts and equipment vendors shall be maintained in the event a work order has to be contracted outside.
- G. Material accumulation around conveyors and transfer area shall be cleaned at the completion of each working production day.

III. Storage Piles

- A. Stockpiling of all coke material will be performed with wheeled loaders to minimize drop distance and control potential dust problems.
- B. Stockpiles will be watered on a as needed basis in order to meet the opacity limits included within the permit. A record of all watering shall be kept on file and be made available upon request to the AQD.
- C. Maintain a minimum moisture of 5 percent at a depth of 6 inches from the surface of the pile and at a height 4 feet of the ground.
- D. Stockpile heights shall be maintained at less than 60 feet.

IV. Truck Traffic

- A. On-site, vehicles shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within six inches of the top of any side board, side panel or tail gate, otherwise, the truck shall be tarped.
- B. Spills around the transport trucks shall be cleaned daily using hand shovels and placing spilled materials into the truck or onto the stockpiles.
- C. Dirt/mud deposited on wheels of trucking and off-highway vehicles shall be removed before leaving the stockpile areas or premises of the Facility to prevent dragout dirt and/or mud.
- D. Off-site, all trucks leaving must be tarped.

V. Training and Administrative Aspects

- A. Responsible personnel on the management level will be assigned to oversee implementation of the Fugitive Dust Program at the Facility.
- B. Responsible personnel will be assigned to implement and monitor the control measures and the record keeping aspects of the Program.
- C. Employee orientation on company policies on safety, environmental, operational and housekeeping shall be done for new hires.
- D. Monthly in-house meetings on safety, environmental, operational and housekeeping shall be conducted.
- E. Representatives shall attend and participate in coordinated meetings with the industries of Zug Island in improving conditions affecting operations and traffic controls on the island.

VI. AQD/MDEQ Inspection - The provisions and procedures of this plan are subject to adjustment if following an inspection and written notification the AQD finds the fugitive dust requirements and/or the permitted opacity limits are not being met.

**Appendix 5-S2. Testing Procedures**

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 6-S2. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No. 199600132d

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA

**Appendix 7-S2. Emission Calculations**

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

**Appendix 8-S2. Reporting**

**A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

**STATE OF MICHIGAN  
RENEWABLE OPERATING PERMIT**

**SECTION 3**

Tube City IMS

SRN: A7809

LOCATED AT

No. 1 Quality Drive, Ecorse, Michigan  
48218

## **A-S3. GENERAL CONDITIONS**

### **Permit Enforceability**

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state only enforceable Source-wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### **General Provisions**

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. 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 conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### **Emission Limits**

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### **Testing/Sampling**

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(4))**

### **Monitoring/Recordkeeping**

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
  - a. The date, location, time, and method of sampling or measurements.
  - b. The dates the analyses of the samples were performed.
  - c. The company or entity that performed the analyses of the samples.
  - d. The analytical techniques or methods used.
  - e. The results of the analyses.
  - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

### **Certification & Reporting**

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
  - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
  - a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
  - a. The applicable requirements are included and are specifically identified in the ROP.
  - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaiming, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

### **Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. <sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. <sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. <sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. <sup>2</sup> **(R 336.1201(4))**

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

### **B-S3. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

### **C-S3. EMISSION UNIT CONDITIONS**

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

#### **EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
EU-IMS-SCARFING-S3	Slab Scarfing Operation	01/01/92	NA

**EU-IMS-SCARFING-S3  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

The slab scarfing machine is a 2,400 scf/hour natural gas fired unit with a design capacity of 300,000 lbs/hour located at the 80-inch hot mill facility. The steel slab scarfing operation is within an enclosed negative pressure building, with four fume collection canopies and one pulse jet baghouse.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:**

Baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	.004 grains per dry standard cubic foot of exhaust gases <sup>2</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EU-IMS-SCARFING-S3	V.1, VI.2,3,4,&5	R 336.1205, R 336.1331(1)(c)
2. Particulate Matter	3.77 pounds per hour <sup>2</sup>	As determined through reference method 5 at R 336.2004 or 5D at R336.2013	EU-IMS-SCARFING-S3	V.1, VI.2,3,4,&5	R 336.1205, R 336.1331(1)(c)
3. Particulate Matter	14.45 tons per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EU-IMS-SCARFING-S3	V.1, VI.1	R 336.1205, R 336.1331(1)(c)
4. Opacity	25% <sup>2</sup>	1.5 minute average	EU-IMS-SCARFING-S3	VI.4&5	R 336.1359(1)
5. Opacity	5% <sup>2</sup>	6 minute average	EU-IMS-SCARFING-S3	VI.4&5	R 336.1301(1)(c)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas	2,400 cubic feet per operating hour <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EU-IMS-SCARFING-S3	VI.1	R 336.1331

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not operate EU-IMS-SCARFING-S3 for more than 21 hours per day nor 7,665 hours per year<sup>2</sup>. (R 336.1205, R 336.1331, R 336.1901)

2. The permittee shall equip and maintain EU-IMS-SCARFING-S3 with a baghouse<sup>2</sup>. **(R 336.1205, R 336.1331, R 336.1901)**
3. The permittee shall not operate EU-IMS-SCARFING-S3 unless a gauge which measures the pressure drop across the baghouse is installed and operating properly<sup>2</sup>. **(R 336.1205, R 336.1331, R 336.1901, 40 CFR 64.6(c)(1))**
4. The permittee shall maintain a minimum pressure drop of 4 inches water gauge across the baghouse for EU-IMS-SCARFING-S3<sup>2</sup>. **(R 336.1205, R 336.1331, R 336.1901)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a particulate emission test to verify the pounds per hour and grains per dry standard cubic foot of exhaust gases emission rate from the EU-IMS-SCARFING-S3 baghouse at least once per ROP term limit or more frequently upon the request of AQD. Testing shall be performed using USEPA Reference Test Method 5, 5D, or another AQD approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3))**

**See Appendix 5-S3**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record and keep the following information and shall be made available to AQD upon request:
  - a. Monthly record of natural gas usage in cubic feet per hour per 12 month rolling time period as determined at the end of each calendar month.
  - b. The total hours of operation per day.
  - c. The total hours of operation per 12 month rolling time period as determined at the end of each calendar month<sup>2</sup>. **(R 336.1213(3), R 336.1201)**
2. The permittee shall internally inspect the baghouse and associated monitoring gauges, such as pressure drop, at least once every 12 months. Permittee shall record the results of the inspection and maintenance performed on the baghouse in the maintenance log. **(R 336.1213(3))**
3. The permittee shall record the pressure drop across the baghouse daily as an indicator of proper operation. The indicator range is a pressure drop between 4 and 9 inches water gauge when the unit is operational which can be changed upon approval by the AQD District Supervisor. The permittee shall initiate appropriate maintenance activity on the baghouse if the pressure drop falls outside of the indicator range. The permittee shall record the maintenance performed on the baghouse in the maintenance log. An excursion is a pressure drop outside of the normal range for one daily reading. An excursion triggers an inspection, corrective action as appropriate, and reporting. **(R 336.1213(3), 40 CFR 64.6(c)(1)&(2), 40 CFR 64.7)**
4. The permittee shall perform a non-certified visible emission observation of the baghouse stack at least once a month during slab scarfing activity as an indicator of proper operation of the baghouse. The indicator is the presence of visible emissions. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(40 CFR 64.6(c)(1)(i and ii))**

5. The permittee shall perform a certified visible emission observation of the baghouse stack at least once every four months during slab scarfing activity using Reference Method 9A and Method 9 as an indicator of proper operation of the baghouse. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. An excursion is an opacity reading above 25% on a 1.5 minute average and above 5% on a 6 minute average. An excursion triggers inspection, corrective action and reporting. **(R 336.1213(3), 40 CFR 64.6(c)(2), 40 CFR 64.7(d)) (40 CFR 64.6(c)(1)(i and ii))**
6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EU-IMS-SCARFING-S3 (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
7. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
8. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
9. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendices 3-S3, 4-S3, and/or 7-S3**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i), R 336.1213(3)(c))**

**See Appendix 8-S3**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSLABSCARFER	72 <sup>1</sup>	95 <sup>1</sup>	(R 336.1901)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).  
<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

### **D-S3. FLEXIBLE GROUP CONDITIONS**

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

### **E-S3. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

## APPENDICES

### Appendix 1-S3: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

**Appendix 2-S3. Schedule of Compliance**

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

**Appendix 3-S3. Monitoring Requirements**

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 4-S3. Recordkeeping**

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

**Appendix 5-S3. Testing Procedures**

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 6-S3. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No.199600132d

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA

**Appendix 7-S3. Emission Calculations**

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

**Appendix 8-S3. Reporting**

**A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

**5/5/14 DRAFT  
STATE OF MICHIGAN  
RENEWABLE OPERATING PERMIT**

**SECTION 4**

Harsco Metals

SRN: A7809

LOCATED AT

7819 West Jefferson Avenue  
Detroit, MI 48209

## **A-S4. GENERAL CONDITIONS**

### **Permit Enforceability**

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state only enforceable Source-wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### **General Provisions**

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. 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 conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq.,

and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### **Emission Limits**

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### **Testing/Sampling**

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(4))**

### **Monitoring/Recordkeeping**

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
  - a. The date, location, time, and method of sampling or measurements.
  - b. The dates the analyses of the samples were performed.
  - c. The company or entity that performed the analyses of the samples.
  - d. The analytical techniques or methods used.
  - e. The results of the analyses.
  - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

### **Certification & Reporting**

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
  - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
  - a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
  - a. The applicable requirements are included and are specifically identified in the ROP.
  - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaiming, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

**Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. <sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. <sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. <sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. <sup>2</sup> **(R 336.1201(4))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B-S4. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

**C-S4. EMISSION UNIT CONDITIONS**

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUHARSCOSCREEN1-S4	700 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. Control equipment includes a screening enclosure (full boot) that covers the screen area and material transfer points.	11/18/2011	NA
EUHARSCOSCREEN2-S4	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 111 horsepower (hp) diesel fired engine. The feed conveyors for the portable screening units run across the top of the screening beds which mitigates particulate emissions.	11/18/2011	FGHARSCOPORTABLE
EUHARSCOSCREEN3-S4	350 ton per hour portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors. The engine that powers the portable unit is a 168 hp diesel fired engine. The feed conveyors for the portable screening units run across the top of the screening beds which mitigates particulate emissions.	11/18/2011	FGHARSCOPORTABLE

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUHARSCOYARD-S4	<p>Fugitive dust sources associated with the transport, handling and screening of iron ore pellets associated with Harsco's ore screening equipment include:</p> <ul style="list-style-type: none"> <li>• The haul road from storage piles in No. 5 and 6 Yards to the No. 3 ore dock area (stationary pile location)</li> <li>• Front end loader travel areas within and in between storage piles in No. 5 and 6 Yards and the portable screening units</li> <li>• Raw pellet and pellet fines load in/load out activities from ore stock piles in No. 5 and 6 Yard</li> <li>• Front end loader travel areas between storage piles at the No. 3 ore dock and the stationary screening plant</li> <li>• Raw pellet and pellet fines load in/load out activities from ore stock piles at No. 3 ore dock</li> <li>• Material drop points where screened pellets or pellet fines are transferred from conveyors to stockpiles</li> </ul>	NA	NA

**The following conditions apply to: EUHARSCOSCREEN1-S4**

**DESCRIPTION:**

700 ton per hour stationary screening equipment with an electric powered engine used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:**

A screening enclosure (full boot) that covers the screen area and material transfer points.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	10% <sup>2</sup>	6 minute average	Screening enclosure (full boot) that covers the screen area and material transfer points of EUHARSCOSCREEN1-S4	VI.4	R 336.1301, R336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron ore pellets	700 tons <sup>2</sup>	Per hour	EUHARSCOSCREEN1-S4	VI.2	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. Iron ore pellets	5,000,000 tons <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	EUHARSCOSCREEN1-S4	VI.2	R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

3. The permittee shall not process any asbestos tailing or asbestos containing waste materials in EUHARSCOSCREEN1-S4 pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUHARSCOSCREEN1-S4 unless the program for fugitive emissions control specified in Appendix 9-S4 has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient. **(R 336.1371(5))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain belt scales on the conveyor carrying screened pellets to the U.S. Steel pellet stockpile and the conveyor carrying pellet fines from EUHARSCOSCREEN1-S4 which will each continuously show the daily throughput rate for the conveyor. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate EUHARSCOSCREEN1-S4 unless the screening enclosure (full boot) that covers the screen area and material transfer points is installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Maintenance of the enclosure in accordance with the manufacturer's specifications is sufficient to maintain a minimum particulate control efficiency of at least 90%. **(R 336.1205, R 336.1301, R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1331(1)(c), R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep daily and monthly records of the amount of material processed through EUHARSCOSCREEN1-S4. Further the permittee shall calculate on a monthly basis, the yearly throughput rate based upon the most recent 12-month rolling time period. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request. **(R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUHARSCOSCREEN1-S4 at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUHARSCOSCREEN1-S4 at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303)**

**VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUHARSCOSCREEN1-S4. **(R 336.1201(7)(a))**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. Within 45 days of issuance of this permit, the permittee shall label all equipment, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to: EUHARSCOYARD-S4**

**DESCRIPTION:**

Fugitive dust sources associated with the transport, handling and screening of iron ore pellets associated with Harsco's ore screening equipment.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:**

NA

**I. EMISSION LIMITS**

1. Visible emissions from all wheel loaders, all truck traffic, and each of the material storage piles, operated and maintained in conjunction with EUHARSCOYARD-S4, shall not exceed five (5) percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), Act 451 Section 325.5525(j))**

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUHARSCOYARD-S4 unless the program for fugitive emissions control specified in Appendix 9-S4 has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient. **(R 336.1371(5))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1303)**
2. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUHARSCOYARD-S4 at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The

permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**

3. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUHARSCOYARD-S4 at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303)**
4. The permittee shall monitor and record, on a monthly basis, the moisture content of the iron ore pellet fines during ore screening operations from a representative storage pile in the area where the loaders are moving material. This shall be done with methods as approved by the AQD District Supervisor. **(R 336.1301 R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

### D-S4. FLEXIBLE GROUP CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

#### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGHARSCOPORTABLE-S4	Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.	EUHARSCOSCREEN2-S4 EUHARSCOSCREEN3-S4

**The following conditions apply to: FGHARSCOPORTABLE-S4**

**DESCRIPTION:**

Two sets of portable screening equipment used for the screening of iron ore pellets. The screening equipment includes a feed hopper, feed conveyor system, a screen, and two stacker conveyors for each portable screener.

**Emission Units:** NA

**POLLUTION CONTROL EQUIPMENT:**

The feed conveyors for the portable screening units run across the top of the screening beds which mitigates particulate emissions.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible emissions	20% <sup>2</sup>	6 minute average	Each screening unit of FGHARSCOPORTABLE-S4	VI.4	R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMITS**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron ore pellets	350 tons <sup>2</sup>	Daily average	Each screening unit of FGHARSCOPORTABLE-S4	VI.2	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. Iron ore pellets	1,000,000 tons <sup>2</sup>	Based on a 12-month rolling time period as determined at the end of each calendar month	FGHARSCOPORTABLE-S4	VI.2	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

- The permittee shall not process any asbestos tailing or asbestos containing waste materials in FGHARSCOPORTABLE-S4 pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**
- The permittee shall burn only diesel fuel, in the engine portion of FGHARSCOPORTABLE-S4 with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, in the engine portion of each FGHARSCOPORTABLE-S4. **(R 336.1205(1)(a), R 336.1402(1))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUHARSCOPORTABLE-S4 unless the program for fugitive emissions control specified in Appendix 9-S4 has been implemented and is maintained. **(R 336.1371, R 336.1372, R 336.1901, Act 451 324.5524)**
2. The permittee shall not operate the engine portion of FG HARSCOPORTABLE-S4 for more than 3,000 hours per year per screening unit on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install and maintain a belt scale on the feed conveyor portion of each screening unit in FG HARSCOPORTABLE-S4 which continuously shows the daily throughput rate for the conveyor. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not operate FG HARSCOPORTABLE-S4 unless the units are installed, maintained, and operated in a satisfactory manner consistent with the manufacturer's specifications. Configuration and maintenance of the equipment in accordance with the manufacturer's specifications is sufficient to minimize particulate emissions and maintain a minimum particulate control efficiency of 50%. **(R 336.1205, R 336.1301, R 336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1301, R 336.1303, R 336.1331(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep daily records for EUHARSCOSCREEN2-S4 and EUHARSCOSCREEN3-S4 separately and monthly records for FG HARSCOPORTABLE-S4 combined of the amount of material processed. Further the permittee shall calculate on a monthly basis, the yearly throughput rate based upon the most recent 12-month rolling time period. The permittee shall keep records of the amount of material processed on file and make them available to the Department upon request. **(R336.1331(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall perform a non-certified visible emission observation of the ore screening operations for EUHARSCOSCREEN2-S4 and EUHARSCOSCREEN3-S4 of FG HARSCOPORTABLE-S4 at least once per week for a minimum of 15-minutes during ore screening activity. After one year of visible emission observations, the permittee may petition to the Department to reduce the minimum time of an observation from 15 minutes to a shorter timeframe, as approved by the District Supervisor. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken. **(R 336.1301, R 336.1303)**
4. The permittee shall perform a Method 9 certified visible emission observation of the ore screening operations for EUHARSCOSCREEN2-S4 and EUHARSCOSCREEN3-S4 of FG HARSCOPORTABLE-S4 at least once per month during ore screening activity. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action. **(R 336.1301, R 336.1303)**

5. The permittee shall keep records of, in a satisfactory manner, the maximum sulfur content of the fuel for each shipment of fuel received. If supplier certification is used for this purpose, records of certification must contain the name of the supplier. **(R336.1205, R336.1225, R336.1331, R 336.1402, R336.1702)**
6. The permittee shall monitor and record the hours of operation of each engine portion of FGHARSCOPORTABLE-S4 on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGHARSCOPORTABLE. **(R 336.1201(7)(a))**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. Within 45 days of issuance of this permit, the permittee shall label all equipment, according to a method acceptable to the AQD District Supervisor. Labels shall be in a conspicuous location on the equipment. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## **E-S4. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

## APPENDICES

### Appendix 1-S4: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

**Appendix 2-S4. Schedule of Compliance**

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

**Appendix 3-S4. Monitoring Requirements**

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 4-S4. Recordkeeping**

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

**Appendix 5-S4. Testing Procedures**

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 6-S4. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No. 19900132d.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
78-11	One stationary and two portable iron ore pellet screening operations	EUHARSCOSCREEN1 EUHARSCOSCREEN2 EUHARSCOSCREEN3 EUHARSCOYARD FGHARSCOPORTABLE

**Appendix 7-S4. Emission Calculations**

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

**Appendix 8-S4. Reporting**

**A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

## Appendix 9-S4. Fugitive Dust Control Plan

### SECTION 1 – INTRODUCTION

There are a number of technical terms that apply to emissions emitted into the air. HARSCO is required to employ all practical measures to avoid creating fugitive dust that goes beyond the HARSCO facility boundaries or causes a nuisance dust problem.

HARSCO is a subcontractor to USS Great Lakes Works with its operations situated within the iron-making area of the USS operations. USS is responsible for fugitive dust control in the vicinity of the HARSCO ore screening operation – including dust control on adjacent roadways. USS's existing fugitive dust control measures and operating procedures minimize emissions and minimize fugitive dust emissions. The purpose of this plan is to focus on control measures that will minimize fugitive dust emissions from the HARSCO operations themselves.

#### ***Purpose***

This plan describes all of the fugitive dust sources and the technologically feasible and economically reasonable control measures and operating procedures that can be used to minimize dust at HARSCO. **Our employees and contractors will implement these measures to minimize fugitive dust emissions and to ensure the associated visible emissions from our activities do not exceed what is permissible by law or create a nuisance problem.**

#### ***Scope***

The most common examples of fugitive dust emissions are those associated with storage piles or unpaved roads caused by either wind or human activities, such as vehicle traffic. Importantly, regardless of whether or not a project requires a permit, MDEQ requires that sources emitting fugitive dust must implement appropriate control measures to minimize such emissions.

This document is a guide for identifying and controlling sources of fugitive dust emissions at HARSCO. Section 2 defines and describes fugitive dust emissions associated with the HARSCO ore screening operations, Section 3 describes the appropriate control measures to minimize those emissions, Section 4 outlines recordkeeping requirements, and Section 5 summarizes the plan.

### SECTION 2 – SOURCE CATEGORIES

#### ***General***

This section defines and describes the HARSCO ore screening activities and the associated fugitive dust emissions sources.

#### ***Process Description***

HARSCO provides ore pellet screening services to U. S. Steel Great Lakes Works in support of their iron-making operations on Zug Island using one stationary screening unit and two portable screening units. The ore pellets are removed from U. S. Steel's ore piles and transported to one of HARSCO's screening units via front end loader or truck. The pellets are transferred by front end loader into the feed hoppers of the screening units. From the feed hoppers, the pellets are conveyed to the screen. After the pellets and fines are separated at the screen, the screened pellets are transferred to a storage pile. The screened pellets are removed from the pile by U. S. Steel personnel for delivery to their blast furnaces. Pellet fines are conveyed and transferred to fines piles. When the fines piles reach sufficient size, they are moved elsewhere on Zug Island in preparation for removal from the island.

#### ***Fugitive Dust Source Categories***

##### ***Storage Piles***

Temporary or permanent storage piles contain iron ore pellets and are stored outside throughout the year. All of these materials are owned and provided by USS to be used in their manufacturing of iron. Emissions from this source include load-in and load-out activities.

HARSCO's storage piles addressed within this Plan include:

- Unscreened pellets delivered to the stationary screening plant via HARSCO truck (one stockpile)
- Screened fines from the stationary screening plant (one stockpile)
- Screened fines from the two portable screening plants (one stockpile per plant)

#### *Unpaved Road Travel*

There is one defined unpaved road which HARSCO utilizes which the control of fugitive emissions is considered in the Plan. This unpaved road connects #5/#6 yards to the #3 dock where HARSCO screens the iron pellets. HARSCO also includes emissions created by front-end loaders during the transport of pellets from stockpiles to the screening plants.

#### *In-plant transportation*

Materials are moved from one point to another at HARSCO Metals in a variety a ways, including; dump trucks, front-end loaders, and conveyors.

### **SECTION 3 – CONTROL MEASURES**

#### ***General***

Abatement and control measures, such as watering, are used to minimize dust from several types of sources at USS. USS operates under their own fugitive dust plan for their operations. The HARSCO facility uses best management practices under their control to minimize dust released from their operations.

#### ***Dust Controls***

##### *Storage Piles*

- Use of wind breaks - #3 dock is below grade and surrounded by walls
- Limit the fines pile height to below existing adjacent walls in #3 dock
- Limit fines pile height to 10' or below for portable plants
- Drop height from conveyors to storage piles will be maintained in a manner that minimizes freefall drop distance.
- Directing engine exhaust gases that are generated by the machines used on the piles for loading or unloading upwards.
- During stocking and de-stocking operations, front-end loader bucket drop height shall be minimized to the lowest practical level. Equipment operators shall be instructed to use care when unloading materials. Dump truck loads must be dumped slowly.
- If the moisture content of the iron ore pellet fines in the storage piles in the working areas shows a tested value of less than 3.6% moisture the applicant shall initiate dust suppression activities to increase the moisture content in that area.

##### *Unpaved Roads/Areas*

- Limit speed to 10 mph
- Prompt clean up of material spillage on roads
- The dust on the site roadways and the plant yard shall be controlled by applications of dust suppressant. Applications of dust suppressants shall be done as often as necessary, but no less than two times per month, to meet all applicable emission limits excluding periods of wet weather or cold weather months, where freezing is a potential issue. The applications of dust suppressant shall also be performed when necessary in conjunction with the non-certified and certified visible emission readings.

##### *In-plant transportation*

- On-site vehicles shall be loaded to prevent their contents from dropping, leaking, blowing, or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tailgate.
- The drop distance at each processing plant transfer point shall be maintained at the current manufacturer's design.

**SECTION 4 – RECORDKEEPING**

Records of dust control activities on travel surfaces and other surfaces where fugitive dust emissions occur shall be kept on file and made available to MDEQ staff upon request. The records will indicate the date, time, what was observed or the reason for the dust control activity (routine or other), and what action was taken.

**SECTION 5 – CONCLUSION**

This plan should be referred to prior to any future project initiation to provide additional forethought in the development and implementation of a project to avoid off-property transport and to ensure the associated visible emissions do not exceed permit limits or create a nuisance problem. Personnel involved in activities that produce fugitive dust are responsible for implementing the applicable control measures and operating procedures to minimize dust emissions to the greatest extent possible. Such persons are responsible for complying with all applicable county, state, and federal air regulations and will appropriately burden the responsibility of any associated compliance actions if taken by the regulatory authorities.

Personnel will continue to be made aware of the local and state regulations through a variety of ways, primarily by being provided access to this plan, as well as the *Fugitive Dust Controls and Permit Requirements*. HARSCO will continue providing appropriate response when reviewing future projects so that personnel will be made aware of fugitive dust issues and requirements for control measures.

**STATE OF MICHIGAN  
RENEWABLE OPERATING PERMIT**

**SECTION 5**

United States Steel Great Lakes Works -  
Pulverized Coal Storage and Transport  
System Operation

SRN: A7809

LOCATED AT

Zug Island  
River Rouge, MI 48218

## **A-S5. GENERAL CONDITIONS**

### **Permit Enforceability**

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state only enforceable Source-wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R336.1214a(5))**
- Those conditions that are hereby incorporated in federally enforceable Source- wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

### **General Provisions**

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. 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 conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities **(R 336.1213(1)(d))**:
  - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
  - c. Inspect, at reasonable times, any of the following:
    - i. Any stationary source.
    - ii. Any emission unit.
    - iii. Any equipment, including monitoring and air pollution control equipment.
    - iv. Any work practices or operations regulated or required under the ROP.
  - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

### **Equipment & Design**

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### **Emission Limits**

11. Except as provided in Subrules 2, 3, and 4 of Rule 301, states in part; "a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of Rule 301(1)(a) or (b) unless otherwise specified in this ROP." The grading of visible emissions shall be determined in accordance with Rule 303. **(R 336.1301(1) in pertinent part):**
  - a. A 6-minute average of 20 percent opacity, except for one 6-minute average per hour of not more than 27 percent opacity.
  - b. A limit specified by an applicable federal new source performance standard.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### **Testing/Sampling**

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1). **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

### **Monitoring/Recordkeeping**

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate **(R 336.1213(3)(b))**:
- The date, location, time, and method of sampling or measurements.
  - The dates the analyses of the samples were performed.
  - The company or entity that performed the analyses of the samples.
  - The analytical techniques or methods used.
  - The results of the analyses.
  - The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

### **Certification & Reporting**

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A responsible official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
- For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
  - For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
  - For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following **(R 336.1213(3)(c))**:
  - a. Submitting a certification by a responsible official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
  - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a responsible official which states that, "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete". The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a responsible official in a manner consistent with the CAA. **(R 336.1912)**

## **Permit Shield**

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance, if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
  - a. The applicable requirements are included and are specifically identified in the ROP.
  - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

27. Nothing in this ROP shall alter or affect any of the following:
  - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
  - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
- a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
  - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
  - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
  - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
  - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(9))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

## Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
- a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
  - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
  - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
  - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(7))**

## Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaiming, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F.
37. If the permittee is subject to 40 CFR, Part 82, and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

## Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR, Part 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR, Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall comply with the requirements of 40 CFR, Part 68, no later than the latest of the following dates as provided in 40 CFR, Part 68.10(a):
- June 21, 1999,
  - Three years after the date on which a regulated substance is first listed under 40 CFR, Part 68.130, or
  - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR, Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR, Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR, Part 68)**

## Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

**Permit To Install (PTI)**

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule. <sup>2</sup> **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA. <sup>2</sup> **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ. <sup>2</sup> **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months, or has been interrupted for 18 months, the applicable terms and conditions from that PTI shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, MDEQ, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI. <sup>2</sup> **(R 336.1201(4))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **B-S5. SOURCE-WIDE CONDITIONS**

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

### **C-S5. EMISSION UNIT CONDITIONS**

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

#### **EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Including Process Equipment &amp; Control Device(s))</b>	<b>Installation Date/ Modification Date</b>	<b>Flexible Group ID</b>
EU-PCI-COAL-TRANS-S5	Pulverized coal storage and transport system	10/07/1996	NA

**EUPCI-COAL-TRANS-S5  
EMISSION UNIT CONDITIONS**

**DESCRIPTION:**

Pulverized coal storage and transport system comprised of pulverized coal/air collection system, storage bins, and air transport system.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:**

Fabric filter dust collectors

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate Matter	21.9 milligrams per cubic meter of exhaust air corrected to 70F and 29.92 inches Hg <sup>2</sup>	As determined by the average of three one-hour test runs or otherwise determined by the testing protocol approved by AQD	EUPCI-COAL-TRANS-S5 (Transport system discharge fabric filter dust collector)	V.1, VI.2, VI.3, VI.4, VI.5	<b>R 336.1201(3)</b>
2. Particulate Matter	0.26 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs or otherwise determined by the testing protocol approved by AQD	EUPCI-COAL-TRANS-S5 (Transport system discharge fabric filter dust collector)	V.1, VI.2, VI.3, VI.4, VI.5	<b>R 336.1201(3)</b>
3. Particulate Matter	1.15 tons per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EUPCI-COAL-TRANS-S5 (Transport system discharge fabric filter dust collector)	V.1, VI.1	<b>R 336.1201(3)</b>
4. Particulate Matter	21.9 milligrams per cubic meter of exhaust air corrected to 70F and 29.92 inches Hg <sup>2</sup>	As determined by the average of three one-hour test runs or otherwise determined by the testing protocol approved by AQD	EUPCI-COAL-TRANS-S5 (Silo and injection vessel fabric filter dust collector)	V.1, VI.2, VI.3, VI.4, VI.5	<b>R 336.1201(3)</b>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. Particulate Matter	0.14 pounds per hour <sup>2</sup>	As determined by the average of three one-hour test runs or otherwise determined by the testing protocol approved by AQD	EUPCI-COAL-TRANS-S5 (Silo and injection vessel fabric filter dust collector)	V.1, VI.2, VI.3, VI.4, VI.5	<b>R 336.1201(3)</b>
6. Particulate Matter	0.59 tons per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EUPCI-COAL-TRANS-S5 (Silo and injection vessel fabric filter dust collector)	V.1, VI.1	<b>R 336.1201(3)</b>
7. Opacity	5% <sup>2</sup>	6 minute average	EUPCI-COAL-TRANS-S5	VI.4, VI.5	<b>R 336.1201(3)</b>

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Pulverized Coal	925,000 tons of coal to the blast furnaces per year <sup>2</sup>	Based on a 12 month rolling time period as determined at the end of each calendar month	EUPCI-COAL-TRANS-S5	VI.1	<b>R 336.1201(3)</b>

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall not supply coal to the pulverized coal silo unless a gauge which measures the pressure drop across the transport system discharge fabric filter dust collector and which activates an alarm when the pressure drop exceeds a normal operating value is installed and operating properly<sup>2</sup>. **(R336.1201(3), 40 CFR 64.6(c)(1))**
2. The permittee shall not operate the coal injection system unless a gauge which measures the pressure drop across the pulverized coal silo and injection vessel fabric filter dust collector and which activates an alarm when the pressure drop exceeds a normal operating value is installed and operating properly<sup>2</sup>. **(R336.1201(3), 40 CFR 64.6(c)(1))**
3. The permittee shall not operate EUPCI-COAL-TRANS unless the fabric filter dust collectors are installed and operating properly<sup>2</sup>. **(R336.1910)**

**IV. DESIGN/EQUIPMENT PARAMETER(S)**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall conduct a particulate emission test to verify the pounds per hour and milligrams per cubic meter of exhaust air corrected to 70F and 29.92 inches Hg from the EUPCI-COAL-TRANS fabric dust collectors at least once per ROP term limit or more frequently upon the request of AQD. Testing shall be performed using USEPA Reference Test Method 17, or another AQD approved method. No less than 30 days prior to testing, a complete stack test protocol must be submitted to AQD for approval. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1213(3))**

**See Appendix 5-S5**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall record and keep the following information which shall be made available to AQD upon request:
  - a. Monthly and 12 month rolling records of the tons of pulverized coal sent to the blast furnaces?  
**(R336.1201(3), R336.1213(3))**
2. The permittee shall record the pressure drop across the transport system discharge fabric filter dust collector daily as an indicator of proper operation of the dust collector. The indicator range is a pressure drop between 0.0 and 3.5 in. H<sub>2</sub>O which can be changed upon approval by the AQD District Supervisor. The permittee shall initiate appropriate maintenance activity on the fabric filter dust collector if the pressure drop exceeds the normal range. An excursion is defined as a pressure drop outside of the normal range. An excursion triggers an inspection, corrective action as appropriate, and reporting. **(R336.1213(3), 40 CFR 64.6(c)(1)&(2), 40 CFR 64.7(d))**
3. The permittee shall internally inspect the fabric filter dust collectors and associated monitoring gauges at least once every 12 months. Permittee shall record the results of the inspections and maintenance performed on the collectors. **(R 336.1213(3))**
4. The permittee shall perform a non-certified visible emission observation of the pulverized coal transport system at least once a week during source operations as an indicator of proper operation of the dust collector. If visible emissions are observed, a Method 9 certified visible emission observation will be performed at that time. The permittee shall initiate appropriate corrective action upon observation of visible emissions exceeding the emission limit and shall keep a written record of each required observation and corrective action. An excursion is defined as an opacity above 5% on a 6 minute average. An excursion triggers corrective action and reporting **(R336.1213(3), 40 CFR 64.6(c)(1)(i and ii), 40 CFR 64.6(c)(2), 40 CFR 64.7(d))**
5. The permittee shall perform a certified Method 9 visible emission observation of the pulverized coal transport system at least once a month during source operations as an indicator of proper operation of the dust collector. The permittee shall initiate corrective action upon observation of visible emissions exceeding the applicable visible emission limits of this permit and shall keep a written record of each required observation and corrective action taken. An excursion is defined as an opacity above 5% on a 6 minute average An excursion triggers corrective action and reporting **(R336.1213(3), 40 CFR 64.6(c)(1)(i and ii), 40 CFR 64.6(c)(2), 40 CFR 64.7(d))**
6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) 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 or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
7. 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 owner or operator 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. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**

8. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
9. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendices 3-S5, 4-S5, and/or 7-S5**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken and monitor downtime. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime **(40 CFR 64.9(a)(2)(i), R 336.1213(3)(c))**

**See Appendix 8-S5**

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVTRANSPORTSYSDUSTCOL	19.44 <sup>2</sup>	202 <sup>2</sup>	<b>(R 336.1201(3))</b>
2. SVSILODUSTCOLLECTOR	25.44 <sup>2</sup>	170 <sup>2</sup>	<b>(R 336.1201(3))</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

<sup>2</sup>This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

## **D-S5. FLEXIBLE GROUP CONDITIONS**

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

## **E-S5. NON-APPLICABLE REQUIREMENTS**

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

## APPENDICES

### Appendix 1-S5: Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
gr	Grains	psig	Pounds per square inch gauge
HAP	Hazardous Air Pollutant	PeTE	Permanent Total Enclosure
Hg	Mercury	PTI	Permit to Install
hr	Hour	RACT	Reasonable Available Control Technology
HP	Horsepower	ROP	Renewable Operating Permit
H <sub>2</sub> S	Hydrogen Sulfide	SC	Special Condition
HVLP	High Volume Low Pressure *	scf	Standard cubic feet
ID	Identification (Number)	sec	Seconds
IRSL	Initial Risk Screening Level	SCR	Selective Catalytic Reduction
ITSL	Initial Threshold Screening Level	SO <sub>2</sub>	Sulfur Dioxide
LAER	Lowest Achievable Emission Rate	SRN	State Registration Number
lb	Pound	TAC	Toxic Air Contaminant
m	Meter	Temp	Temperature
MACT	Maximum Achievable Control Technology	THC	Total Hydrocarbons
MAERS	Michigan Air Emissions Reporting System	tpy	Tons per year
MAP	Malfunction Abatement Plan	µg	Microgram
MDEQ	Michigan Department of Environmental Quality	VE	Visible Emissions
mg	Milligram	VOC	Volatile Organic Compounds
mm	Millimeter	yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

**Appendix 2-S5. Schedule of Compliance**

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

**Appendix 3-S5. Monitoring Requirements**

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 4-S5. Recordkeeping**

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions. Therefore, this appendix is not applicable.

**Appendix 5-S5. Testing Procedures**

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

**Appendix 6-S5. Permits to Install**

The following table lists any PTIs issued since the effective date of previously issued ROP No.199600132d

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA

**Appendix 7-S5. Emission Calculations**

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

**Appendix 8-S5. Reporting**

**A. Annual, Semiannual, and Deviation Certification Reporting**

The permittee shall use the MDEQ Report Certification form (EQP 5736) and MDEQ Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

**B. Other Reporting**

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.