

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

EFFECTIVE DATE: April 22, 2016

REVISION DATE: January 19, 2017

ISSUED TO

AK STEEL DEARBORN WORKS

State Registration Number (SRN): A8640

LOCATED AT

4001 Miller Road, Dearborn, Michigan 48120

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

Administratively Complete ROP Renewal Application
Due Between October 22, 2019 and October 22, 2020

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-A8640-2016a

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

Wilhemina McLemore, Detroit District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	5
SECTION 1 – AK STEEL DEARBORN WORKS.....	6
A. GENERAL CONDITIONS.....	7
Permit Enforceability	7
General Provisions.....	7
Equipment & Design	8
Emission Limits.....	8
Testing/Sampling	8
Monitoring/Recordkeeping	9
Certification & Reporting	9
Permit Shield	10
Revisions	11
Reopenings.....	11
Renewals.....	12
Stratospheric Ozone Protection	12
Risk Management Plan.....	12
Emission Trading	13
Permit To Install (PTI).....	13
B. SOURCE-WIDE CONDITIONS	14
C. EMISSION UNIT CONDITIONS	18
EMISSION UNIT SUMMARY TABLE.....	18
EU COAL HANDLING.....	21
EU COKE SCRUBBER.....	23
EU RAW MATERIAL HANDLING.....	25
EU BF FURNACE	27
EU CF FURNACE	37
EU TREADWELL DRYOUT	48
EU RELADLING BOF	50
EU BOF DESULF	54
EU BOF	59
EU LADLER FINE 1	70
EU LADLER FINE 2	75
EU VACUUM DEGASSER.....	80
EU HAND SCARFING	82
EU MACH SCARF	84
D. FLEXIBLE GROUP CONDITIONS.....	88
FLEXIBLE GROUP SUMMARY TABLE.....	88
FG B&C FURNACES.....	89
FG BOF SHOP	94
FG ANNEAL FURNACES	103
FG HSM FURNACES 123	105
FG ENG 2007 > 500	108
FG ENG 2007 < 500	111
FG SCARF BLDG	114
FG COLD CLEANERS.....	116

FGRULE290 119

E. NON-APPLICABLE REQUIREMENTS 122

APPENDICES 123

Appendix 1-1. Acronyms and Abbreviations 123

Appendix 2-1. Schedule of Compliance 124

Appendix 3-1. Monitoring Requirements 124

Appendix 4-1. Recordkeeping 127

Appendix 5-1. Testing Procedures 128

Appendix 6-1. Permits to Install..... 128

Appendix 7-1. Emission Calculations 129

Appendix 8-1. Reporting 134

Appendix 9-1. Fugitive Dust Control Plan..... 135

SECTION 2 – EDW. C. LEVY COMPANY 137

A. GENERAL CONDITIONS..... 138

Permit Enforceability 138

General Provisions..... 138

Equipment & Design 139

Emission Limits 139

Testing/Sampling 139

Monitoring/Recordkeeping 140

Certification & Reporting 140

Permit Shield 141

Revisions 142

Reopenings..... 142

Renewals..... 143

Stratospheric Ozone Protection 143

Risk Management Plan..... 143

Emission Trading 144

Permit To Install (PTI) 144

B. SOURCE-WIDE CONDITIONS 145

C. EMISSION UNIT CONDITIONS 150

EMISSION UNIT SUMMARY TABLE 150

EUBLSTFCESLAGPIT 151

EURUNWAYSAGWTR 153

D. FLEXIBLE GROUP CONDITIONS..... 155

FGDESULFWTR-STN 156

E. NON-APPLICABLE REQUIREMENTS 159

APPENDICES 160

Appendix 1-2. Abbreviations and Acronyms..... 160

Appendix 2-2. Schedule of Compliance 161

Appendix 3-2. Monitoring Requirements 161

Appendix 4-2. Recordkeeping 161

Appendix 5-2. Testing Procedures 161

Appendix 6-2. Permits to Install..... 162

Appendix 7-2. Emission Calculations 162

Appendix 8-2. Reporting 162

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 will be identified for each ROP term or condition. All terms and conditions that are included in a PTI, are streamlined or subsumed, or is 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.

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Decree (Civil Action No. 15-cv-11804) entered into on August 21, 2015; Consent Order SIP No. 30-1993 issued on November 2, 1994; Consent Order SIP No. 18-1993 issued on September 9, 1994 to Edw. C. Levy Co.; Consent Order Number 6-2006 issued on March 21, 2006; and Consent Order 9-2010 issued on April 23, 2010.

AK Steel Dearborn Works, A8640; and Edw. C. Levy Co., Plant 6, B4243 are considered to meet the criteria under Rule 336.1119(r) as single stationary source for purposes of the ROP program only, but were issued a separate ROP for the main slag processing plant as a result of negotiations.

SECTION 1 – AK STEEL DEARBORN WORKS

A. 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).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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, “Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:”² **(R 336.1301(1))**
 - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.

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.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(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).² **(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))**
 - 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.² **(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(10))**
- 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(8))**

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 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 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 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.² **(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.² **(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.² **(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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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.² **(R 336.1201(4))**

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

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

B. 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.

SOURCE-WIDE CONDITIONS

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 ²	3-minute average	Fugitive dust emissions from sources other than roads, lots, or storage piles.	Method 9D, SC VI.2	Act 451 Section 324.5524(2)
2. Visible Emissions	5 % Opacity ²	3-minute average*	Fugitive dust emissions from any road, lot or storage pile, including any material handling activity at a storage pile.	Method 9D, SC VI. 2	Act 451 Section 324.5524(2)

*This shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall implement and maintain the approved Fugitive Dust Control Plan as specified in Appendix 9-1 of this ROP.² **(Act 451 Section 324.5524, Consent Order SIP 30-1993)**

See Appendix 9-1

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. At least 20% of the sources subject to testing requirements shall have been tested within one year of the effective date of the permit, at least 40% of the sources shall have been tested within two years of the effective date, at least 60% of the sources shall have been tested within three years of the effective date, at least 80% of the sources shall have been tested within four years of the effective date, and 100% of the sources shall have been tested within five years of the effective date. **(R 336.1213(3))**

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 daily records of the information required by Appendix 4.1-1(A-C) in a format consistent with SIP No. 30-1993. The permittee shall keep the record on file for a period of at least two years, and make the records available to the AQD upon written or verbal request. **(Act 451 Section 324.5524, Consent Order SIP No. 30-1993, Exhibit A,5,H,Addendum, R 336.1213(3))**
2. The permittee shall perform a non-certified visible emission observation of the fugitive dust sources mentioned in Appendix 9-1 of this permit at least once per week during March through October. The permittee shall perform a certified visible emission observation of a representative set of the fugitive dust sources mentioned in Appendix 9-1 of this permit at least once per month during March through October. The representative set must include a paved road, an unpaved road, a storage pile and an unpaved open area. A different set of fugitive dust sources must be observed each month. 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))**
3. The permittee shall implement and maintain the Hydrogen Sulfide Monitoring Protocol for Rule 406 submitted and approved by AQD on April 1, 2011 or any subsequent amendment to the protocol. Amendments to the protocol must be approved by the AQD District Supervisor. If, at any time, the AQD determines that the protocol is inadequate, the permittee shall amend the protocol within 45 days upon request from the AQD District Supervisor.² **(R 336.1406(2), R 336.1213(3))**

See Appendix 4-1 and 9-1

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. A quarterly report shall be submitted by the permittee to the AQD identifying each day in which emission limit, operational requirement, or recording requirement, as specified in SIP No. 30-1993 (Revised 9/9/94) Exhibit A (Fugitive Dust Control Plan, Rouge Area Operations), is 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 was collected. **(Consent Order SIP No. 30-1993, Paragraph 11)**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified 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 the conditions as the date upon which the Termination Order is signed by the Chief of the Air Quality Division or by an authorized U.S Environmental Protection Agency representative. **(R 336.1213(3))**
2. The conditions contained in this ROP for which a Consent Judgment or Consent Decree is the only identified applicable requirement shall be considered null and void upon the effective date of termination of the Consent Judgment or Decree. The effective date of termination is defined for the purposes of the conditions as the date upon which a Stipulation and Order for Termination is signed by a Circuit Court Judge or by a United States District Court Judge or Magistrate Justice. **(R 336.1213(3))**
3. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**
4. When the odor of hydrogen sulfide is found to exist beyond the property line of AK Steel Dearborn Works, the 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.² **(R 336.1406(2))**
5. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines by the initial compliance date. **(40 CFR Part 63, Subparts A and ZZZZ)**
6. The permittee shall comply with all applicable provisions of the New Source Performance Standards, as specified in 40 CFR Part 60, Subpart A and Subpart IIII, for Stationary Compression Ignition Internal Combustion Engines by the initial compliance date. **(40 CFR Part 60, Subparts A and IIII)**

Footnotes:

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

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

C. 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
EUCOALHANDLING	Pulverized coal silo with two bin vent filters.	1-1-2008	NA
EUCOKESCRNBLDGDD	Coke screening building DD. Stack ID: SVCOKESCRNBLD	1-1-1950	NA
EURAWMATHANDLING	Raw material handling system. Stack ID:SVRAWMATHANDLING	1-1-1997	NA
EUBFURNACE	This emission unit consists of the "B" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the "B" Blast Furnace, semi-clean bleeder, and a dirty gas bleeder. Stack ID: SVBFSTOVE, SVBFBH	1-1-1922	FGB&CFURNACES
EUCFURNACE	This emission unit consists of the "C" Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the "C" Blast Furnace, semi-clean bleeder, and two dirty gas bleeders. Stack ID: SVCFSTOVE, SVCFBH	1-1-1948/ 10-01-2007	FGB&CFURNACES
EUTREADWELLDRYOUT	Treadwell car dry out operations.	1-1-97	NA
EURELADLINGBOF	Reladling south and north - controlled by a movable hood and secondary baghouse. Stack ID: SVBOFBH	1-1-75	FGBOFSHOP

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUBOFDESULF	Desulfurization operation using lime and magnesium to remove sulfur and skimming of slag into a slag pot, all controlled by a movable hood to a baghouse. Stack ID: SVDESULFBH.	1-1-81	NA
EUBOF	Basic oxygen furnace (BOF) including charging, oxygen blowing, tapping and slag tapping. 2 vessels controlled by an electrostatic precipitator and a secondary emissions baghouse. Stack ID: SVBOFESP, SVBOFBH	1-1-64	FGBOFSHOP
EULADLEREFINE1	No. 1 Ladle refining facility controlled by a baghouse Stack ID: SVLADELREFINE1	1-1-90	NA
EULADLEREFINE2	No. 2 Ladle refining facility controlled by a baghouse. Stack ID: SVLADELREFINE2	1-1-95	NA
EUVACUUMDEGASSER	Vacuum degasser with a flare.	1-1-90	NA
EUHANDSCARFING	Hand scarfing operation	1-1-1986	NA
EUANNEALFURNACES	There are 52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building.	Hydrogen Nitrogen Annealing Furnaces 1935-1972 Hydrogen Annealing Furnaces 1988-1993	FGANNEALFURNACES
EUREHEATFURN1	Slab reheat furnace 1 located in the Hot Strip Mill Building. Stack ID: SVHSMREHEAT1-S SVHSMREHEAT1-N	1-1-79	FGHSMFURNACES123
EUREHEATFURN2	Slab reheat furnace 2 located in the Hot Strip Mill Building. Stack ID: SVHSMREHEAT2-S SVHSMREHEAT2-N	1-1-74	FGHSMFURNACES123
EUREHEATFURN3	Slab reheat furnace 3 located in the Hot Strip Mill Building. Stack ID: SVHSMREHEAT3-S SVHSMREHEAT3-N	1-1-74	FGHSMFURNACES123
EUENGCBFCTC	A 530 horsepower (hp) natural gas fired emergency engine manufactured in March 2007. Location: C BF Tuyere Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFCTC	2007	FGENG2007>500
EUENGCBFHS	An 800 horsepower (hp) natural gas fired emergency engine manufactured in July 2007. Location: C BF Hearth/Stave Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFHS	2007	FGENG2007>500

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUENGCBFBS	A 250 horsepower (hp) natural gas fired emergency engine manufactured in May 2007. Location: C BF Bosh/Stave Cooling. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFBS	2007	FGENG2007<500
EUENGWSAC	A 250 horsepower (hp) natural gas fired emergency engine manufactured in March 2007. Location: WSAC Spray Tower. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGWSAC	2007	FGENG2007<500
EUENGCBFDM	A 145 horsepower (hp) natural gas fired emergency engine manufactured in May 2007. Location: C BF Drill & Mud Gun. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFDM	2007	FGENG2007<500
EUENGCBFGS	A 95 horsepower (hp) natural gas fired emergency engine manufactured in February 2007. Location: C BF Gas Scrubber Engine. This engine is subject to MACT ZZZZ. Stack ID: SV-ENGCBFGS	2007	FGENG2007<500
EUSCARFBLDGHEAT	Miscellaneous natural gas fired units, including building heaters, etc.	September 2014	FGSCARFBLDG
EUMACHSCARF	One machine scarfer equipped with a robotic arm with an oxy-fuel torch to remove skin defects from the slab. This operation is enclosed and will be controlled by a baghouse. Stack ID:SV-SCARFBH	September 2014	FGSCARFBLDG
EUMANUALSCARF	Manual touchup scarfing operation for minor touchup of slab surfaces with emission exhausted to the roof monitor.	September 2014	FGSCARFBLDG
EUCUTSLICE	Slab cutting and/or slicing with emissions exhausted to the roof monitor.	September 2014	FGSCARFBLDG
EUCOLDCLEANERS	Any cold cleaner placed into operation after 7/1/79 that is exempt from NSR permitting by R 336.1281(h) or R 336.1285(r)(iv)	NA	FGCOLDCLEANERS
EUBOFLIMERECEIVI	Basic oxygen furnace lime unloading station and baghouse.	1-1-64	FGRULE290
EUCOKEUNLOADEE	Coke unloading EE building.	1-1-1950	FGRULE290
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**EUCOALHANDLING
EMISSION UNIT CONDITIONS**

DESCRIPTION

Pulverized coal silo

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Two bin vent filters

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity ²	6-minute average	EUCOALHANDLING	SC VI.1, VI.2	R 336.1301(1)(c)
2. PM	0.005 gr/dscf ²	Test Protocol*	EUCOALHANDLING	GC 13 SC VI.1, VI.2	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
3. PM10	0.005 gr/dscf ²	Test Protocol*	EUCOALHANDLING	GC 13 SC VI.1, VI.2	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803 R 336.2804
4. PM2.5	0.005 gr/dscf ²	Test Protocol*	EUCOALHANDLING	GC 13 SC VI.1, VI.2	R 336.1205(1)(a) & (b) R 336.2803 R 336.2804

*Test Protocol specifies averaging time

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

- The permittee shall not operate EUCOALHANDLING unless both bin vent filters are installed, maintained, and operated in a satisfactory manner.² (R 336.1205(1)(a) & (b), R 336.1301(c), R 336.1331(1)(c), R 336.2801(ee), R 336.2802(4), R 336.1910)

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 Method 9 certified visible emission observation of each bin vent filter at least once a month during processing activity. 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.² (R 336.1301(1)(c), R 336.1910)
2. The permittee shall periodically inspect each bin vent filter to determine the operational and physical condition of each bin vent filter at least semiannually, and immediately after observing visible emissions in excess of the applicable limitation. Each bin vent filter shall be inspected as necessary immediately after a malfunction or failure of the bin vent filter or the process equipment to determine the reason for the malfunction or failure. Written records of each inspection and corrective action taken, if any, shall be maintained.² (R 336.1301(1)(c), R 336.1910)

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 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 8-1

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

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

EUCOKESCRNBLDGDD EMISSION UNIT CONDITIONS
--

DESCRIPTION

Coke screening building DD

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. Visible Emissions	5% Opacity ²	6-minute average	EUCOKESCRNBLDGDD	SC VI.1	R336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate the EUCOKESCRNBLDGDD unless the baghouse is installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1301(1)(c), R 336.1331(1)(c), R 336.1910)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. The permittee shall conduct visible emission readings by a certified Method 9 observer of visible emissions from the coke screening building baghouse stack at least once a month during coke screening activities. 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.² **(R 336.1301(1)(c), R 336.1910)**

VII. REPORTING

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

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

- 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 8-1

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCOKESCRNBLD	36 ²	82 ²	R 336.1225 R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

- 1. The Coke Screening Building DD shall be evacuated through a baghouse.² **(SIP No. 30-1993, Exhibit A, Section 5(B), Paragraphs (1) and (2))**
- 2. All coke handling conveyors shall be totally enclosed or covered with a 180 degree cover.² **(SIP No. 30-1993, Exhibit A, Section 5(F), Paragraph (1))**

Footnotes:

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

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

**EURAWMATHANDLING
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Raw material handling system

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. PM	1. 1.0 lb/hr ²	Test Protocol	Baghouse stack	GC 13, SC VI.1, VI.2, VI.3	R 336.1331(1)(c)
	2. 4.39 tons per year ²	Annually	Baghouse stack	GC 13, SC VI.1, VI.2, VI.3	R 336.1331(1)(c)
2. Visible Emissions	1. 10% Opacity ²	6-minute average	Baghouse stack	Method 9, SC VI.1, VI.2, VI.3	R 336.1201(3)
	2. No visible emissions ²	6-minute average	Conveyors, storage bins or raw material handling building	SC VI.2, III.2	R 336.1201(3)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the stockhouse unless the baghouse is installed and operated properly.² (R 336.1201(3), R 336.1910)
2. The permittee shall not operate the automated raw material handling system unless the fugitive dust control plan has been implemented and maintained.² (R 336.1201(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

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 pressure drop across the baghouse weekly. A pressure drop of between 2 and 6 inches w.c. shall be considered normal and can be changed upon the request of the permittee, with the approval of the AQD District Supervisor. The permittee shall initiate appropriate maintenance activity on the baghouse if the pressure drop exceeds the normal range. **(R 336.1213(3))**
2. The permittee shall perform a Method 9 certified visible emission observation of the raw material handling baghouse, conveyors, storage bins, and building at least once a month during processing activity. 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))**
3. The permittee shall periodically inspect the baghouse to determine the operational and physical condition of the baghouse at least once per month and immediately after observing visible emissions in excess of the applicable limitation. The baghouse will be inspected as necessary immediately after a malfunction or failure of the baghouse or the process equipment to determine the reason for the malfunction or failure. Written records of each inspection and corrective action taken, if any, shall be maintained. **(R 336.1213(3))**

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 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVRAWMATHANDLING	36 ²	51 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

1. All conveyors in the Blast Furnace Raw Material Handling System shall have a 180 degree cover except for the “B” and “C” Blast Furnace charging conveyors which shall be totally enclosed.² **(R 336.1901, R 336.1301)**
2. All Blast Furnace Raw Material Handling Conveyor transfer points shall be covered.² **(R 336.1901, R 336.1301)**

Footnotes:

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

**EUBFURNACE
EMISSION UNIT CONDITIONS**

DESCRIPTION

This emission unit consists of the “B” Blast Furnace proper, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas scrubber and dust collector for removal of particulate from blast furnace gas generated by the “B” Blast Furnace, semi-clean bleeder, and a dirty gas bleeder. The requirements for this emission unit are not applicable until the startup of EUBFURNACE.

Flexible Group ID: FGB&CFURNACES

POLLUTION CONTROL EQUIPMENT

“B” Blast furnace is controlled by a baghouse. Stoves have Low-NOx technology; mechanical collector and venturi scrubber for blast furnace gas pre-cleaning.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity ²	6-minute average	EUBFURNACE Baghouse stack	SC V.8, VI.2	R 336.1361
2. Visible Emissions	20% Opacity	6-minute average	EUBFURNACE Secondary emissions exiting any opening	SC V.1, V.2, V.4, V.6	40 CFR 63.7790(a)
3. Visible Emissions	20% Opacity ²	6-minute average	EUBFURNACE Roof monitors	SC V.8, VI.3	R 336.1358
4. Visible Emissions	20% Opacity ²	6-minute average	EUBFURNACE Bleeder Openings	SC VI.4	R 336.1301(1)(1)
5. PM	0.003 gr/dscf ²	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1331(1)(c) R 336.2802(4) 40 CFR 52.21 (a)(2)
6. PM	0.01 gr/dscf	Test Protocol*	EUBFURNACE Baghouse stack	SC V.1, V.2, V.4	40 CFR 63.7790(a)
7. PM	6.1 pph ²	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
8. PM	3.0 pph ²	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
9. PM10	7.6 pph ²	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM10	8.13 pph ²	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
11. PM2.5	7.6 pph ²	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. PM2.5	8.13 pph ²	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
13. SO ₂	71.9 pph ²	Calendar day average	EUBFURNACE Baghouse stack	SC VI.6	R 336.2803, R 336.2804
14. SO ₂	38.75 pph ²	Calendar day average	EUBFURNACE Stove stack	SC VI.6	R 336.2803, R 336.2804 R 336.2810
15. SO ₂	77.8 pph ²	Calendar day average	EUBFURNACE (baghouse and stove stacks combined)	SC VI.6	R 336.2803, R 336.2804
16. SO ₂	340 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBFURNACE (baghouse and stove stacks combined)	SC VI.29	R 336.2801(ee) R 336.2803, R 336.2804
17. CO	705 pph ²	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.2804
18. NOx	2.65 pph ²	Test Protocol*	EUBFURNACE Baghouse stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
19. NOx	36.0 pph ²	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4), R 336.2803, R 336.2804
20. Mn	0.005 pph ¹	Test Protocol*	EUBFURNACE Stove stack	SC V.9	R 336.1225

*Test protocol specifies averaging time

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	3,200 tons per day ²	Calendar Day	EUBFURNACE	SC VI.25	R 336.1225 R 336.2803, R 336.2804

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
2. Natural Gas	40.2 MMSCF per year ²	12-month rolling time period basis as determined at the end of each calendar month	EUBFURNACE Limited natural gas suppression system	SC VI.26	R 336.1205(1)(a)&(b) R 336.1225 R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUBFURNACE shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.7800(a), 40 CFR 63.6(e)(1)(i))**
2. Upon start-up of EUBFURNACE, the permittee shall develop and implement a written startup, shutdown and malfunction plan for the EUBFURNACE. The plan shall include proper operating procedures to minimize bleeder emissions.² **(R 336.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**
3. The permittee shall not operate the stoves in EUBFURNACE unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD 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. 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 AQD District Supervisor.² **(R 336.1911, R 336.1912, R 336.2802)**
4. Upon start-up of EUBFURNACE, the permittee shall develop site-specific monitoring plans for “B” 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); and **(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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The EUBFURNACE shall not be operated unless the baghouse is installed, maintained and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), MDEQ Consent Order AQD No. 6-2006 Paragraph 10.B)**

2. Within 90 days prior to installation of the EUBFURNACE baghouse capture system, the permittee shall provide the design plans and a signed certification from the designer, certifying that the EUBFURNACE baghouse capture system is designed to achieve no less than 98% collection efficiency to the AQD District Supervisor. The permittee shall keep on file a copy of the EUBFURNACE baghouse capture system design plans and a signed certification from the designer, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for the EUBFURNACE emissions.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4), 40 CFR 52.21(a)(2), R 336.1911, R 336.2803, R 336.2804)**
3. Upon start-up of EUBFURNACE, the permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO₂ emissions and flow from each EUBFURNACE baghouse stack and stove stack on a continuous basis.² **(R 336.2803, R 336.2804)**
4. Upon start-up of EUBFURNACE, the permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage of the natural gas suppression system for EUBFURNACE.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**
5. Upon start-up of EUBFURNACE, the permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the monthly natural gas usage rate and blast furnace gas usage rate of the stoves of EUBFURNACE.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2902(2), 40 CFR Part 51 (Appendix S))**
6. The permittee shall not operate EUBFURNACE with more than one taphole.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4))**
7. The permittee shall not operate the stove portion of EUBFURNACE unless the low-NO_x technology is installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
8. The permittee shall not fire blast furnace gas in the stoves of EUBFURNACE unless the scrubber and mechanical collector for pre-combustion gas cleaning are installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2802(4), R 336.2801(ee), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

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

1. Within 180 days of startup of EUBFURNACE, the permittee shall conduct a performance test to demonstrate initial compliance with the applicable emission and opacity limitations of 40 CFR Part 63, Subpart FFFFF contained in this section. **(40 CFR 63.7820(a))**
2. Upon start-up of EUBFURNACE, the permittee shall conduct performance tests for particulate matter emissions and opacity at least once every five years. **(40 CFR 63.7821)**
3. The permittee shall sample for an integral number of furnace tapping operations to obtain at least one hour of sampling for each test run. **(40 CFR 63.7822(e))**
4. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**
5. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer of Method 9 visible emissions using Method 9. The performance test for visible emissions shall consist of 30 6-minute block averages during tapping of the furnace. **(40 CFR 63.7823(c)(1) and (2))**

6. 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))**
7. 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))**
8. Within 180 days after start-up of EUBFURNACE, the permittee shall verify visible emissions, PM, PM₁₀, PM_{2.5} and NO_x emission rates from EUBFURNACE baghouse stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. 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.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1361, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
9. Within 180 days after start-up of EUBFURNACE, the permittee shall verify PM, PM₁₀, PM_{2.5}, NO_x, CO, and Mn emission rates from the stove stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. Testing must be performed at normal operating conditions for EUBFURNACE stove stack. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. 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.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
10. Within 180 days after start-up of EUBFURNACE, verification of the slag silt content, by testing at owner's expense, in accordance with Department requirements will be required. The permittee must complete the test once every quarter for four quarters and then annually, thereafter. The permittee shall submit a complete copy of the test results to the AQD within 60 days following the last date of the test (measured by the fourth quarterly sample for the first year).² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall perform a Method 9 certified visible emission observation for the blast furnace EUBFURNACE baghouse stack at least once every month during blast furnace processing activity for a minimum of one hour. 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.² **(R 336.1361)**
3. The permittee shall perform a Method 9 certified visible emission observation for the EUBFURNACE roof monitors at least once a week during casting for a minimum of one hour. 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.² **(R 336.1358)**
4. The permittee shall perform a non-certified visible emission observation for a minimum of 15 minutes for the EUBFURNACE bleeders at least once per month during planned blast furnace start up or shut down activities and a Method 9 certified visible emission observation of the EUBFURNACE bleeder at least once per quarter during planned blast furnace start up or shut down activities. Additionally, the permittee shall perform a Method 9 certified visible emission observation of the EUBFURNACE bleeder during all unplanned openings that last for more than thirty minutes. The permittee shall record each occurrence of 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.² **(R 336.1301)**
5. The permittee shall perform a Method 9 certified visible emission observation for the EUBFURNACE stove stack at least once a week during operation for a minimum of one hour. 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.² **(R 336.1301)**
6. Within 180 days after start-up, the permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO₂ emissions and flow from EUBFURNACE baghouse stack and stove stack on a continuous basis. The permittee shall install and operate each CERM system to meet the timelines, requirements and reporting detailed in Appendix 3.1-1 and shall use the CERM data for determining compliance with SC I.12, I.13, and I.14.² **(R 336.2803, R 336.2804)**
7. Upon start-up of EUBFURNACE, the permittee shall prepare and operate at all times according to written operation and maintenance plans for "B" Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following: **(40 CFR 63.7800(b))**
 - 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 "B" 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 “B” 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.
8. If applicable, the permittee shall monitor the hourly average actual volumetric flow rate through each separately ducted hood and the average hourly total volumetric flow rate at the inlet to the baghouse according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(a))**
9. If applicable, the permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the requirements of 40 CFR 63.7830(a) and 40 CFR 63.7831(e). **(40 CFR 63.7830(a))**
10. The permittee shall conduct inspections of the “B” Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements: **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**
 - 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.
11. If applicable, the permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b) and (d))**
- a. 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))**
 - b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
 - c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**
12. Except as allowed in SC VI.14, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**
- a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
 - c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**
13. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.14. **(40 CFR 63.7831(f)(6))**
14. If the permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
15. The permittee shall monitor the process as required by 40 CFR Part 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
16. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**
17. 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))**
18. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.14. **(40 CFR 63.7833(c)(1))**
19. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**

20. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
21. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
22. The permittee shall maintain records of visible emissions observations in SC I.2 required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7842(c))**
23. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7842(d) and 40 CFR 63.7833(c)(4))**
24. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be kept offsite. **(40 CFR 63.7843(b) and (c))**
25. The permittee shall monitor and record, in a satisfactory manner, the iron production for EUBFURNACE on a daily, monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
26. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for the natural gas suppression system of EUBFURNACE on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
27. The permittee shall periodically inspect the installed stove burners of the EUBFURNACE stoves, and the venturi scrubber and mechanical collector for pre-combustion gas cleaning of the EUBFURNACE stove to determine its operational and physical condition at least once every 6 months. Written records of each inspection and corrective action taken, if any, shall be maintained.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2902(2), 40 CFR Part 51 (Appendix S), R 336.2803, R 336.2804)**
28. The permittee shall monitor and record, in a satisfactory manner, blast furnace gas and natural gas usage records for EUBFURNACE stove on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2902(2), 40 CFR Part 51 (Appendix S), R 336.2803, R 336.2804)**
29. The permittee shall keep, in a satisfactory manner, hourly, calendar day average, monthly and previous 12-month rolling time period records of SO₂ emission calculations for EUBFURNACE, using actual emissions data obtained from the CERMS installed on the stove stack and the baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.2803, R 336.2804)**
30. The permittee shall maintain records of all information necessary to demonstrate compliance with the emission limits of this permit.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2804)**
31. The permittee shall perform preventative maintenance on the EUBFURNACE baghouse as specified in the operation and maintenance plan for the baghouse. **(40 CFR 63.7834(a)(2))**

See Appendix 3-1

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 report the results of the initial performance test in the notification of compliance status. **(40 CFR 63.7820(a), 40 CFR 63.7825(c), 40 CFR 63.7840(e))**
5. The permittee shall submit a notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
6. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**
7. Upon start-up of EUBFURNACE, the permittee shall maintain a current copy of the operation and maintenance plan required under SC III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
8. 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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBBFROOFMON	NA ²	75.2 ²	R 336.1225 R 336.2803, R 336.2804
2. SVBFBH	111 ²	200 ²	R 336.1225 R 336.2803, R 336.2804
3. SVBFSTOVE	99 ²	190 ²	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

EUCFURNACE EMISSION UNIT CONDITIONS

DESCRIPTION

This emission unit consists of the “C” Blast Furnace, a group of 4 stoves with a common stack, the cast house emission control system (collection hoods followed by a baghouse and stack), a blast furnace gas dust collector and venturi scrubber for removal of particulate from blast furnace gas generated by the “C” Blast Furnace, a semi-clean bleeder, and two dirty gas bleeders.

Flexible Group ID: FGB&CFURNACES

POLLUTION CONTROL EQUIPMENT

“C” Blast Furnace is controlled by a baghouse. Stove for Low-NOx technology; mechanical collector and venturi scrubber for blast furnace gas pre-cleaning

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity ²	6-minute average	EUCFURNACE Baghouse stack	SC V.7, VI.2	R 336.1361
2. Visible Emissions	20% Opacity	6-minute average	EUCFURNACE Secondary emissions exiting any opening	SC V.1, V.3, V.4, V.5	40 CFR 63.7790(a)
3. Visible Emissions	20% Opacity ²	6-minute average	EUCFURNACE Roof monitors	SC V.7, VI.3	R 336.1358
4. Visible Emissions	20% Opacity ²	6-minute average	EUCFURNACE “C” furnace bleeders	SC VI.4	R 336.1301(1)(a)
5. PM	0.003 gr/dscf ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
6. PM	0.01 gr/dscf	Test Protocol*	EUCFURNACE Baghouse stack	SC V.1	40 CFR 63.7790(a)
7. PM	13.87 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
8. PM	6.98 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
9. PM10	18.24 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM10	19.72 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
11. PM2.5	18.24 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. PM2.5	19.72 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
13. SO ₂	179.65 pph ²	Calendar day average	EUCFURNACE Baghouse stack	SC VI.6	R 336.2810 R 336.2803, R 336.2804
14. SO ₂	193.6 pph ²	Calendar day average	EUCFURNACE Stove stack	SC VI.6	R 336.2810 R 336.2803, R 336.2804
15. SO ₂	271.4 pph ²	Calendar day average	EUCFURNACE Stove stack and baghouse stack combined	SC VI.6	R 336.2802 R 336.2803, R 336.2804 R 336.2810
16. SO ₂	1,188 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUCFURNACE (baghouse and stove stacks combined)	SC VI.29	R 336.2801(ee) R 336.2803, R 336.2804
17. CO	56.25 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.2810 R 336.2804
18. CO	1,756 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.2810 R 336.2804
19. NOx	5.46 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
20. NOx	106.3 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
21. VOC	9.92 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1205(1)(a) & (b) R 336.1702
22. Pb	0.0077 pph ²	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.2804
23. Pb	0.011 pph ²	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.2804
24. Mn	0.042 pph ¹	Test Protocol*	EUCFURNACE Baghouse stack	SC V.7	R 336.1225

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
25. Mn	0.012 pph ¹	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1225
26. Hg	0.003 pph ¹	Test Protocol*	EUCFURNACE Stove stack	SC V.8	R 336.1225

*Test protocol specifies averaging time

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	8,000 tons per day ²	Calendar Day	EUCFURNACE	SC VI.24	R 336.1225 R 336.2803, R 336.2804
2. Natural Gas	118.3 MMSCF per year ²	12-month rolling time period basis as determined at the end of each calendar month	EUCFURNACE Limited natural gas suppression system	SC VI.25	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

- The EUCFURNACE shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions.² **(40 CFR 63.7800(a), 40 CFR 63.6(e)(1)(i))**
- The permittee shall develop and implement a written startup, shutdown and malfunction plan for EUCFURNACE. The plan shall include proper operating procedures to minimize bleeder emissions.² **(R 336.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**
- The permittee shall not operate the stoves in EUCFURNACE unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD 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. 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 AQD District Supervisor.² **(R 336.1911, R 336.1912, R 336.2802)**

4. The permittee shall develop site-specific monitoring plans for “C” 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); and **(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))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The EUCFURNACE shall not be operated unless the baghouse is installed, maintained and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2804, MDEQ Consent Order AQD No. 6-2006 Paragraph 10.B)**
2. The permittee shall keep on file a copy of the EUCFURNACE baghouse capture system design plans and a signed certification from the designer, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for the EUCFURNACE casthouse emissions.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.1911, R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO₂ emissions and flow from each EUCFURNACE baghouse stack and stove stack on a continuous basis.² **(R 336.2803, R 336.2804, R 336.2810)**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of the natural gas suppression system for EUCFURNACE.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
5. The permittee shall not operate EUCFURNACE with more than two tapholes.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4))**
6. The permittee shall not operate the stove of EUCFURNACE unless the low-NO_x technology is installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
7. The permittee shall not fire blast furnace gas in the stove of EUCFURNACE unless the venturi scrubber and mechanical collector for pre-combustion gas cleaning are installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
8. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage rate of the stoves.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
9. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the blast furnace gas usage rate of the stoves.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), 40 CFR Part 51 (Appendix S), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for particulate matter emissions and opacity at least once every five years. **(40 CFR 63.7821)**
2. The permittee shall sample for an integral number of furnace tapping operations to obtain at least one hour of sampling for each test run. **(40 CFR 63.7822(e))**
3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**
4. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer of Method 9 visible emissions using Method 9. The performance test for visible emissions shall consist of 30 6-minute block averages during tapping of the furnace. **(40 CFR 63.7823(c)(1) and (2))**
5. 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))**
6. 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))**
7. Within three years of May 12, 2014, the permittee shall verify visible emissions, PM, PM10, PM2.5, CO, NOx, VOC, Pb, and Mn emission rates from EUCFURNACE baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after May 12, 2014, the permittee shall obtain Pb and Mn dust concentrations in the EUCFURNACE baghouse hoppers. Subsequent Pb and Mn sampling of the baghouse dust is not required. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. 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, including baghouse dust analysis for Mn and Pb, to the AQD within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1301, R 336.1361, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
8. Within three years of May 12, 2014, the permittee shall verify PM, PM10, PM2.5, NOx, CO, Pb, Mn, and total Hg emission rates from the EUCFURNACE stove stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of

the previous stack test. Testing must be performed at normal operating conditions for EUCFURNACE stove stack. No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and the District Office. 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.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

9. At least annually, verification of the slag silt content, by testing at owner's expense, in accordance with Department requirements will be required. The permittee shall submit a complete copy of the test results to the AQD within 60 days following the date of the test.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)
2. The permittee shall perform a Method 9 certified visible emission observation for the blast furnace EUCFURNACE baghouse stack at least once every month during blast furnace processing activity for a minimum of one hour. 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.² (R 336.1361)
3. The permittee shall perform a Method 9 certified visible emission observation for the EUCFURNACE roof monitors at least once a week during casting for a minimum of at least one hour. 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.² (R 336.1358)
4. The permittee shall perform a non-certified visible emission observation for a minimum of 15 minutes for the EUCFURNACE bleeders at least once per month during planned blast furnace start up or shut down activities and a Method 9 certified visible emission observation of the EUCFURNACE bleeder at least once per quarter during planned blast furnace start up or shut down activities. Additionally, the permittee shall perform a Method 9 certified visible emission observation of the EUCFURNACE bleeder during all unplanned openings that last for more than thirty minutes. The permittee shall record each occurrence of 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.² (R 336.1301)
5. The permittee shall perform a Method 9 certified visible emission observation for the EUCFURNACE stove stack at least once a week during operation for a minimum of at least one hour. 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.² (R 336.1301)
6. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the SO₂ emissions and flow from EUCFURNACE baghouse stack and stove stack on a continuous basis. The permittee shall install and operate each CERM system to meet the timelines, requirements and reporting detailed in Appendix 3.2-1 and shall use the CERM data for determining compliance with SC I.12, I.13, and I.14.² (R 336.2810, R 336.2803, R 336.2804)
7. The permittee shall prepare and operate at all times according to a written operation and maintenance plans for "C" Blast Furnace Casthouse Emission Control Baghouse. Each plan must address the following: (40 CFR 63.7800(b))

- 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 "C" 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 "C" 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.
8. If applicable, the permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the requirements of 40 CFR 63.7830(a) and 40 CFR 63.7831(e). **(40 CFR 63.7830(a))**
9. The permittee shall conduct inspections of the "C" Blast Furnace Casthouse Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c)(3))**
- 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.
10. The permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b) and (d))**
 - a. 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))**
 - b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
 - c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**
 11. Except as allowed in SC VI.13, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**
 - a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
 - c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel, which sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**
 12. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.13. **(40 CFR 63.7831(f)(6))**
 13. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
 14. The permittee shall monitor the process as required by 40 CFR Part 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
 15. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**
 16. 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))**
 17. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.13. **(40 CFR 63.7833(c)(1))**

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

18. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**
19. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
20. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
21. The permittee shall maintain records of visible emissions observations in SC I.2 required by 40 CFR Part 63, Subpart FFFFF. **(40 CFR 63.7842(c))**
22. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7842(d), 40 CFR 63.7833(c)(4))**
23. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
24. The permittee shall monitor and record, in a satisfactory manner, the iron production for EUCFURNACE on a daily, monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
25. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for the natural gas suppression system of EUCFURNACE on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
26. The permittee shall periodically inspect the installed stove burners of the EUCFURNACE stove, and the venturi scrubber and mechanical collector for pre-combustion gas cleaning of the stoves to determine its operational and physical condition at least once every six months. Written records of each inspection and corrective action taken, if any, shall be maintained.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4)R 336.2803, R 336.2804)**
27. The permittee shall monitor and record, in a satisfactory manner, blast furnace gas and natural gas usage records for EUCFURNACE stove on a monthly, and 12-month rolling time period basis. The permittee shall keep, in a satisfactory manner, all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
28. The permittee shall maintain records of all information necessary to demonstrate compliance with the emission limits of this permit.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2804)**

- 29. The permittee shall keep, in a satisfactory manner, hourly, calendar day average, monthly and previous 12-month rolling time period records of SO₂ emission calculations for EUCFURNACE, using actual emissions data obtained from the CERMS installed on EUCFURNACE stove stack and baghouse stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.2802, R 336.2803, R 336.2804, R 336.2810)**
- 30. The permittee shall perform preventative maintenance on the EUCFURNACE baghouse as specified in the operation and maintenance plan for the baghouse. **(40 CFR 63.7834(a)(2))**

See Appendix 3-1

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
- 5. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCBFROOFMONEAST	NA ²	75.2 ²	R 336.1225 R 336.2803, R 336.2804
2. SVCBFROOFMONNORTH	NA ²	75.2 ²	R 336.1225 R 336.2803, R 336.2804
3. SVCFBH	153 ²	200 ²	R 336.1225 R 336.2803, R 336.2804
4. SVCFSTOVE	129 ²	210 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and Subpart FFFFF)**
2. The permittee shall maintain a current copy of the operation and maintenance plan required under SC III.3 onsite and available for inspection upon request. **(40 CFR 63.7834(b))**
3. 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:

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

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

**EUTREADWELLDRYOUT
EMISSION UNIT CONDITIONS**

DESCRIPTION

Treadwell car dry out operation

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 ²	6-minute average	EUTREADWELLDRYOUT	Method 9, SC VI.1	R 336.1301(1)

II. MATERIAL LIMIT(S)

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

VI. MONITORING/RECORDKEEPING

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

- The permittee shall conduct visible emissions readings by a Method 9 certified observer of visible emissions from the Treadwell car dry out operations at least once a month during Treadwell car dry out 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))

VII. REPORTING

- 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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EURELADLINGBOF
EMISSION UNIT CONDITIONS**

DESCRIPTION

Reladling South & North – BOF

Flexible Group ID: FGBOFSHOP

POLLUTION CONTROL EQUIPMENT

BOF secondary emissions baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	3-minute average	EURELADLINGBOF Fugitive emissions from hot metal transfer operation building or enclosure	See Note below*	R 336.1365(2)
2. Visible Emissions	20% Opacity ²	3-minute average	EURELADLINGBOF Fugitive emissions from hot metal transfer operation building or enclosure	SC V.1, V.2, V.3	40 CFR 63.7790(a) Table 1, Item 12
3. PM	6.3 tpy ²	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM10	3.6 tpy ²	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. PM2.5	1.84 tpy ²	12-month rolling time period as determined at the end of each calendar month	EURELADLINGBOF Roof monitors	SC VI.6	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

* Note: Compliance with Rule 365(2) shall be demonstrated through Method 9 readings as specified in SC VI.4 of the EUBOF section.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EURELADLINGBOF and the BOF secondary baghouse shall be operated and maintained 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 shall develop and implement a written startup, shutdown and malfunction plan for the EURELADLINGBOF and the BOF secondary baghouse emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**
3. The permittee shall not operate EURELADLINGBOF unless the emissions are directed to the BOF secondary baghouse and the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.1910, R 336.2802(4))**
4. Unless necessary for emergency, health or safety reasons, including to allow for safe shutdown of operations, the permittee shall not use the North Hole of the Basic Oxygen Furnace Shop for emergency hot metal transfer, hot metal desulfurization, or beaching of molten iron, without installation and operation of appropriate control technology which prevents emissions in excess of the applicable Michigan SIP Rule or additional requirements that are promulgated under Section 112 of the Clean Air Act, 42 U.S.C. Section 7412, or are incorporated in a permit. If the North Hole is used for emergency reasons, the permittee shall report any such use in its next semiannual report. The report shall include the following information for each such prohibited use of the North Hole without the appropriate control technology:² **(R 336.1201(3))**
 - a. Date
 - b. Start time
 - c. Stop time
 - d. Duration of use
 - e. Reason for use.
5. Upon routing the Reladling North Operations exhaust to the BOF secondary baghouse, the permittee may utilize the Reladling North Operations in compliance with the applicable requirements of EURELADLINGBOF, and with the emission, monitoring, testing, and recordkeeping requirements of FGBOFSHOP. **(40 CFR Part 63, Subpart FFFFF)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for opacity and PM no less frequently than once during the ROP renewal period. **(40 CFR 63.7821)**
2. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate of the BOF secondary baghouse. Performance testing for particulate is contained in FGBOFSHOP. **(40 CFR 63.7823(b))**
3. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**
 - a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
 - b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2803, R 336.2804)**
2. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**
3. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
4. The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
5. The permittee shall keep monthly records of the amount of iron throughput to the Reladling South and North Operations, separately. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a)&(b), R 336.2801(ee), R 336.2802(4))**
6. Using the method shown in Appendix 7-1, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, and PM2.5 emission rates from the EURELADLINGBOF roof monitors. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a)&(b), R 336.2801(ee), R 336.2802(4))**

See Appendix 7-1

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
5. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFBH	222 ²	200 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**
2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

**EUBOFDESULF
EMISSION UNIT CONDITIONS**

DESCRIPTION

Desulfurization operation using lime and magnesium to remove sulfur and skimming of slag into a slag pot, all controlled by a movable hood to a baghouse.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	3-minute average	EUBOFDESULF Baghouse stack	SC III.1, VI.2	R 336.1366(1)
2. Visible Emissions	20% Opacity ²	3-minute average	EUBOFDESULF BOF Shop Building	SC III.1 See Note below**	R 336.1366(2)
3. Visible Emissions	20% Opacity	3-minute average	EUBOFDESULF BOF Shop Building	SC V.1, V.2, V.4	40 CFR 63.7790(a) Table 1, Item 12
4. PM	0.01 gr/dscf ²	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4) 40 CFR 63.7790(a) Table 1, Item 10
5. PM	7.7 pph ²	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
6. PM	126.72 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4)
7. PM10	3.6 pph ²	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM10	24.38 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM2.5	3.6 pph ²	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM2.5	14.25 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOFDESULF Roof monitor	SC VI.15	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
11. Pb	0.0016 pph ²	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.2804
12. Mn	0.013 pph ¹	Test Protocol*	EUBOFDESULF Baghouse stack	SC V.5	R 336.1225

*Test Protocol will specify averaging time.

** Note: Compliance with Rule 366(2) shall be demonstrated through Method 9 readings as specified in SC VI.4 of the EUBOF section.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. EUBOFDESULF and the associated baghouse shall be operated and maintained 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 shall develop and implement a written startup, shutdown and malfunction plan for EUBOFDESULF and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**
3. The permittee shall not operate EUBOFDESULF unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner.² **(R 336.1225, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4),R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for particulate matter emissions and opacity at least once every 5 years. **(40 CFR 63.7821)**
2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**
3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**
4. The permittee shall demonstrate compliance with the opacity limitation in SC I.3 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**
 - a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
 - b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**

5. Within three years of May 12, 2014, the permittee shall verify the PM, PM10, PM2.5, Pb, and Mn emission rates from EUBOFDESULF baghouse stack, by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after May 12, 2014, the permittee shall obtain Pb and Mn dust concentrations in the EUBOFDESULF baghouse hoppers. Subsequent Pb and Mn sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan 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.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1228, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall perform a Method 9 certified visible emission observation for the EUBOFDESULF baghouse stack at least once every month during EUBOFDESULF processing activity for a minimum of one complete heat. 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.² **(R 336.1366(1))**
3. The permittee shall conduct inspections of the Desulfurization Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements.² **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**
 - 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.
4. Except as allowed in SC VI.6, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**
 - a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
 - c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**

5. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.6. **(40 CFR 63.7831(f)(6))**
6. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR Sec. 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
7. The permittee shall monitor the process as required by 40 CFR Part 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
8. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 7832(b))**
9. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4), 40 CFR 63.7842(d))**
10. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.6. **(40 CFR 63.7833(c)(1))**
11. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**
12. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
13. The permittee shall maintain records associated with performance tests and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
14. The permittee shall keep monthly records of the amount of iron throughput to EUBOFDESULF. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
15. Using the method shown in Appendix 7-1, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, and PM2.5 emission rates from the EUBOFDESULF roof monitor. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**

See Appendix 7-1

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
5. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVDESULFBH	66 ²	37 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**
2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

**EUBOF
EMISSION UNIT CONDITIONS**

DESCRIPTION

Basic oxygen furnace (BOF) including charging, oxygen blowing, tapping and slag tapping. Two vessels controlled by an electrostatic precipitator and a secondary emissions baghouse.

Flexible Group ID: FGBOFSHOP

POLLUTION CONTROL EQUIPMENT

One Electrostatic Precipitator for both BOF Vessels, BOF Secondary Baghouse for fugitive emissions and reladling

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	10% Opacity, as a trigger for corrective action	Hourly average	EUBOF ESP stack	SC VI.2, VI.10	40 CFR 63.7790(b)(3) 40 CFR 63.7833(g)
2. Visible Emissions	20% Opacity	3-minute average	EUBOF Shop building	SC V.2, V.3, V.4, V.5	40 CFR 63.7790(a)
3. Visible Emissions	20% Opacity ²	3-minute average	EUBOF Roof monitor	SC VI.4, VI.5	R 336.1364(2)
4. PM	0.0152 gr/dscf ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1331(1)(c) R 336.2802(4) 40 CFR 52.21 (a)(2)
5. PM	0.02 gr/dscf	Test Protocol*	EUBOF ESP stack	SC V.1, V.2, V.3	40 CFR 63.7990(a)
6. PM	62.6 pph ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM	61.9 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.33	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4)
8. PM10	47.5pph ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. PM10	28.3 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.33	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. PM2.5	46.85 pph ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
11. PM2.5	20.2 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOF Roof monitor	SC VI.33	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
12. NOx	52.9 pph ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
13. NOx	162.1 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUBOF ESP stack	SC VI.32	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
14. CO	7,048 pph ²	Test Protocol*	EUBOF ESP stack	SC V.7	R 336.2804

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Steel Production	12,200 tons per day ²	Calendar Day	EUBOF	SC VI.30, VI.31	R 336.1225 R 336.2803, R 336.2804
2. Steel Production	4,052,230 tons per year ²	12-month rolling time period basis as determined at the end of each calendar month	EUBOF	SC VI.30, VI.31	R 336.1205(1)(a)&(b) R 336.1225 R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EUBOF off-gas conditioning system which provides additional air-atomized water spray, shall be maintained as part of the off gas conditioning system and shall be included in the operation and maintenance plan for the BOF ESP². **(R 336.1910)**
2. The BOF vessels and ESP shall be operated and maintained 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) and 40 CFR 63.6(e)(1)(i))**
3. The permittee shall operate the BOF capture system and ESP according to an operation and maintenance plan that meets the requirements as follows: **(R 336.1911, 40 CFR 63.7800(b) and 40 CFR 63.6(e)(3))**
 - a. The permittee shall prepare and operate at all times according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in §63.7790(b). Each plan must address the elements in paragraphs (a)(i.) through (v.):

- i. 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.
 - ii. 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.
 - iii. Operating limits for each capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse or to secondary emissions from a BOF. You must establish the operating limits according to the requirements in paragraphs SC III.3(a)(i)(A) through (C):
 - A. Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system.
 - B. For each operating limit parameter selected in SC III.3(a)(i)(A), designate the value or setting for the parameter at which the capture system operates during the process operation.
 - C. Include documentation in the plan to support the selection of the operating limits established for the capture system.
 - iv. Corrective action procedures for baghouses equipped with bag leak detection systems or continuous opacity monitoring systems (COMS). Corrective actions may include, but are not limited to:
 - A. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.
 - B. Sealing off defective bags or filter media.
 - C. Replacing defective bags or filter media or otherwise repairing the control device.
 - D. Sealing off a defective baghouse compartment.
 - E. Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.
 - F. Shutting down the process producing the particulate emissions.
 - v. Corrective action procedures for venturi scrubbers equipped with continuous parameter monitoring systems (CPMS). In the event a venturi scrubber exceeds the operating limit in §63.7790(b)(2), you must take corrective actions consistent with your site-specific monitoring plan in accordance with §63.7831(a).
4. The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSM) for the BOF vessels and the associated emission control system. The permittee shall also develop a malfunction abatement plan (MAP) pursuant to the requirements of Rule 911(2) for the operation of the ESP. The MAP may be a stand-alone plan or combined with the SSM.² **(R 336.1910, R 36.1911, 40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**
 5. During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen flow rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor.² **(R 336.1301, R 336.1901)**
 6. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, it shall be broken up with a breaking ball. **(MDEQ Consent Order 6-2006, Paragraph 11(D)(i))**
 7. The ESP dust handling conveyor at the Basic Oxygen Furnace Building shall have a 180 degree cover over the belt. **(SIP No. 30-1993, Exhibit A, Paragraph 5 (F)(3))**
 8. ESP dust shall be moved by covered belt conveyor to a storage bin and, if transported offsite, the ESP dust, including coarse dust collected in a drop chamber, shall be wetted and transported by a covered truck, or shall be transported by a pneumatic truck to a landfill or other approved facility for recycling and/or disposal. **(SIP No. 30-1993, Exhibit A, Paragraph 5 (B)(5))**
 9. The permittee shall develop and make available for inspection upon request by the AQD a site-specific monitoring plan that addresses all of the following requirements for the BOF ESP: **(40 CFR 63.7831(a))**

- a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each hooded emission point such that the measurement is representative of capture of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
- b. Performance and equipment specifications 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 the general requirements of 40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8); **(40 CFR 63.7831(a)(4))**
- e. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); **(40 CFR 63.7831(a)(5))**
- f. Ongoing recordkeeping and reporting procedures in accordance the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.7831(a)(6))**
- g. Corrective action procedures that will be followed in the event an electrostatic precipitator exceeds the operating limit in 40 CFR 63.7790(b)(3). **(40 CFR 63.7831(a)(8))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUBOF unless the ESP is installed and operating properly.² **(R 336.1301, R 336.1331(c), R 336.1910)**
2. The permittee shall not operate the EUBOF unless the BOF secondary baghouse is installed, maintained, and operated in a satisfactory manner.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. Testing shall be performed with test methods as specified in 40 CFR 63.7822. **(40 CFR 63.7821, 40 CFR 63.7822(g)(1) and (2))**
2. The permittee shall conduct performance tests for particulate matter emissions and opacity at least twice during the ROP renewal period. **(40 CFR 63.7821(a))**
3. Performance tests for visible emissions shall be conducted such that the opacity observations overlap with the performance tests for particulate. **(40 CFR 63.7823(b))**
4. The permittee shall demonstrate compliance with the opacity limitation in SC I.2 with a certified observer according to Method 9 except for the following: **(40 CFR 63.7823(d)(1)(i))**
 - a. Record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles rather than using the procedure specified in Section 2.4 of Method 9. **(40 CFR 63.7823(d)(1)(ii))**
 - b. Determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals. **(40 CFR 63.7823(d)(1)(iii))**
5. Opacity observations from the roof monitors must cover at least three steel production cycles. A production cycle begins when scrap is charged and ends three minutes after slag is emptied from the vessel into the slag pot. **(40 CFR 63.7823(d)(4))**
6. The permittee shall determine and record the starting and stopping times of the steel production cycle. **(40 CFR 63.7823(d)(5))**
7. The permittee shall verify visible emissions, PM, PM10, PM2.5, NOx, and CO emission rates from the EUBOF ESP stack (including BOF oxygen blows), by testing at owner's expense, in accordance with Department requirements, within 180 days of May 12, 2014, unless a test has been completed within two years prior to May 12, 2014 and the results submitted to the AQD for approval. The PM testing shall be performed with test

methods as specified in Rule 336.1331. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan 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.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804, R 336.2802(4))**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall install, operate and maintain a continuous opacity monitor on the EUBOF ESP stack and monitor the hourly average opacity of the stack continuously when the process is in operation. The Continuous Opacity Monitoring System (COMS) shall provide valid 1 hour averages for at least 95 percent of process operating hours for every quarterly reporting period. COMS data must be reduced to 6-minute averages as specified in §63.8(g)(2) and to hourly averages where required by Subpart FFFFF. The permittee shall operate the EUBOF ESP COMS to meet the timelines, requirements and reporting detailed in Appendix 3.3-1 and shall use the COMS data for determining compliance with SC I.1. **(40 CFR 63.7830(d), 40 CFR 63.7831(h), 40 CFR 63.7832(a), 40 CFR 63.7833(g))**
3. The permittee shall perform a Method 9 certified visible emission observation of EUBOF ESP stack at least once every week during operation for a minimum of one complete heat. 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.² **(R 336.1301)**
4. The permittee shall perform a Method 9C certified visible emission observation of the BOF roof monitors and a Method 9C certified visible emission observation of the BOF shop building, including reladling and desulfurization operations, at least once a week during BOF operations for a minimum of one hour, which must include one complete heat. The permittee shall initiate corrective action upon observation of visible emissions in excess of the permit limit and shall keep a written record of each required observation and corrective action taken. The written record shall include all of the information required for the BOF camera log in SC VI.27.c. The permittee shall review the written record on a monthly basis and verify all relevant information has been included.² **(R 336.1301(c), R 336.1364(2), R 336.1365(2), R 336.1366(2))**
5. The permittee shall perform a Method 9C certified visible emission observation during each beaching event that occurs during daylight hours unless impractical due to an emergency situation. When beaching within the BOF building, the visible emissions observation shall include the BOF roof monitors and BOF shop building, and when beaching outdoors, the visible emissions observation shall be conducted of the outdoor beaching location. The permittee shall maintain a log of each occurrence which shall include date, start time, stop time, location of beaching event, visible emissions observations or the reason why such observation was not conducted, and reason for beaching.² **(R 336.1301(c), R 336.1364(2))**
6. The permittee shall maintain an on-site screening procedure and scrap management plan, or alternate plan(s) as approved in writing by the AQD District Supervisor. The plan(s) shall be implemented and maintained immediately after approval. The on-site screening procedure and material management plan will facilitate the permittee's efforts in controlling mercury and/or other toxics and VOC emissions by eliminating unacceptable scrap and eliminating or reducing scrap with mercury contaminated materials. The permittee shall require all suppliers to document that mercury-containing devices and switches have been removed from the scrap¹. **(R 336.1228, R 336.1901)**
7. If applicable, the permittee shall operate and maintain the EUBOF ESP CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b))**

- a. 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))**
 - b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
 - c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**
8. The permittee shall monitor the process as required, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
9. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. All other data collected during all other periods must be used in assessing compliance. **(40 CFR 63.7832(b))**
10. Pursuant to 40 CFR 63.7833(g), if the hourly average opacity for the EUBOF ESP exceeds 10 percent, the permittee shall follow the procedures below:
- a. Initiate corrective action to determine the cause of the exceedance within 1 hour. During any period of corrective action, the permittee must continue to monitor and record all required operating parameters for equipment that remains in operation, such as total power input (voltage and secondary current) of the ESP fields, off-gas conditioning system prior to the ESP (water flow rate within standard operating levels) and any other parameters that are necessary for proper operation of the ESP. Within 24 hours of the exceedance, the permittee must measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the 10 percent limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit. **(R 336.1201(3), 40 CFR 63.7833(g)(1))**
 - b. If the initial corrective action was not successful, the permittee must complete additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, permittee must continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24-hour period, permittee must again measure and record the hourly average opacity for the EUBOF ESP. If the hourly average opacity meets the 10 percent 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))**
 - c. Measurements of the hourly average opacity based on visible emission observations in accordance with Method 9 (40 CFR Part 60, Appendix A) may be taken to evaluate the effectiveness of corrective action. **(40 CFR 63.7833(g)(3))**
 - d. If the second attempt at corrective action was not successful, the permittee must report the exceedance as a deviation in their next semiannual compliance report according to §63.7841(b). **(40 CFR 63.7833(g)(4))**
- All monitoring data shall be kept on file for a period of at least five years and made available to the AQD upon request. **(R 336.1301(1)(c), 40 CFR 63.7830(d), 40 CFR 63.7831(h), 40 CFR 63.7832(a), 40 CFR 63.7833(g))**
11. The permittee shall perform preventative maintenance on the EUBOF ESP as specified in the operation and maintenance plan for the ESP. **(40 CFR 63.7834(a)(2))**
12. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63, Subpart FFFFF, 63.7842(a), (b), (c) and (d). **(40 CFR 63.7842(a), (b), (c) and (d))**
13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**

14. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
15. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
16. The permittee shall maintain records of the following for the continuous opacity monitor:
 - a. Periods when the monitor is malfunctioning or inoperative; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(vi))**
 - b. All required measurements necessary to demonstrate compliance with a standard (including, but not limited to, 15-minute averages of monitoring data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report); **(40 CFR 63.7842(b)(1) and 40 CFR 63.10(b)(2)(vii))**
 - c. All results of performance tests, monitor performance evaluations and opacity and visible emission observations; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(viii))**
 - d. All measurements necessary to determine the conditions of performance tests and evaluations; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(ix))**
 - e. All monitor calibration checks; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(x))**
 - f. All adjustments and maintenance performed on the continuous monitor; **(40 CFR 63.7842(b)(1), 40 CFR 63.10(b)(2)(xi))**
 - g. Monitoring data produced during performance testing; **(40 CFR 63.7842(b)(2))**
 - h. Superseded versions of the performance evaluation plan; and **(40 CFR 63.7842(b)(3), 40 CFR 63.8(d)(3))**
 - i. The date and time each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, malfunction, or during another period. **(40 CFR 63.7842(b)(4))**
17. The permittee shall record the oxygen flow rate at least once every minute during each oxygen blow. **(MDEQ Consent Order 6-2006, Paragraph 11(B)(iii))**
18. The effectiveness of the slopping procedure shall be monitored via the BOF Monitoring and Evaluation Requirements in paragraph 12 of MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 11(B)(iv))**
19. The permittee shall maintain records of any new draft control equipment or instrument installation, and shall document that the draft set point programming is working properly after any such installation. **(MDEQ Consent Order 6-2006, Paragraph 11(C) (i) and (iii))**
20. The effectiveness of the draft set point program shall be monitored via the BOF Monitoring and Evaluation Requirements in Paragraph 12 of MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(iv))**
21. In the event steel with a carbon content of 1% or higher is produced that needs to be broken at the BOF, the permittee shall notify the AQD District Supervisor of such fact, and of its compliance with the breaking ball requirement set forth in SC III.8 of this section. **(MDEQ Consent Order 6-2006, Paragraph 11(D)(ii))**

22. The permittee shall inspect the exterior of the Guillotine Relief Dampers, Relief chambers and Downcomer on a weekly basis for evidence of exhaust leaks. Records of each inspection, to include the name of the inspector, the time and date of the inspection, shall be maintained for a period of five years. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(i)), R 336.1301, R 336.1901)**
23. If the inspection identifies an exhaust leak likely to cause visible emissions, repair procedures shall be initiated. If the exhaust leak is identified during an operating period, temporary repairs shall be initiated within twenty-four (24) hours of verification of the leak. If the leak is identified during an outage, initiation of repairs shall be coordinated with any scheduled repairs. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(ii))**
24. Following completion of either temporary or permanent repairs, an inspection will be conducted during operation of the affected vessel. The performance of the repair shall be recorded. If additional repair is necessary, it will be scheduled and implemented in accordance with SC VI.24 of this section until the leak is no longer a source of emissions. **(MDEQ Consent Order 6-2006, Paragraph 11(E)(iii))**
25. Upon termination of MDEQ Consent Order 6-2006, if an inspection of the exterior of Guillotine Dampers, Relief Dampers, and Downcomer reveals an exhaust leak likely to lead to excess visible emissions, appropriate temporary or permanent repairs shall be initiated within twenty-four (24) hours of verification of the leak and shall be completed until leak is no longer a source of excess emission. **(R 336.1301, R 336.1901)**
26. The permittee shall install 8 digital cameras at the BOF to better obtain continuous, real-time information about the status of its operations at the BOF and BOF emission points. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(i))**
27. The images from the 8 cameras will be transmitted to the BOF pulpits for A and B vessels, to the ESP pulpit and to a conference room in the BOF. If excess emissions are observed from the BOF Roof Monitor, then,
 - a. The appropriate operator(s), if other than the viewer of the image, shall be immediately notified.
 - b. Any reasonable immediate corrective action that can be taken to address the emission shall be taken.
 - c. A log entry will be made of the observation, including the date and time of the observation, the source of the emissions and the cause, if known. If the cause is not known, an immediate investigation of the cause shall be undertaken, and the log updated with the results of such investigation. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(iv))**
28. The images recorded by the cameras once every three seconds shall be stored so that the images can be retrieved for up to thirty (30) days. The images shall be stored such that images of a particular date and time can be identified and recalled. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(v))**
29. After the termination of the provisions of MDEQ Consent Order 6-2006, Paragraph 12(A), permittee shall utilize 8 digital cameras, of which at least 4 must be in operation at any one time and at least one of the four shall be an external view of the BOF, to obtain real-time information about the status of operations at the BOF and BOF emission points. Images from the cameras will be transmitted to the BOF pulpits for A and B vessels, or such other locations as may be approved by the AQD District Supervisor. If excess emissions are observed from the BOF Roof Monitor, then,
 - a. The appropriate operator(s), if other than the viewer of the image, shall be immediately notified.
 - b. Any reasonable immediate corrective action that can be taken to address the emission shall be taken.
 - c. A log entry will be made of the observation, including the date and time of the observation, the source of the emissions and the cause, if known. If the cause is unknown, an immediate investigation of the cause shall be undertaken, and the log updated with the results of such investigation.² **(R 336.1301, R 336.1901)**
30. The permittee shall keep daily and monthly records of the amount of steel produced, in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

31. The permittee shall keep monthly records of the hot metal charging tonnage, steel tapping tonnage and slag tapping tonnage in EUBOF. The permittee shall keep the records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
32. Using the method shown in Appendix 7.1-1, the permittee shall calculate monthly and 12-month rolling time period NOx emission rates from EUBOF ESP stack. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
33. Using the method shown in Appendix 7.1-1, the permittee shall calculate the monthly and 12-month rolling time period for PM, PM10, and PM2.5 emission rates for EUBOF roof monitor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**
34. The permittee shall maintain a copy of the current operation and maintenance plans required in this section onsite and available for inspection. **(40 CFR 63.7834(b))**
35. The permittee shall maintain records of the monitoring data from the continuous opacity monitor. **(40 CFR 63.7842(d))**
36. The permittee shall conduct certified visible emissions observations of the EUBOF Roof Monitors using Method 9C for a minimum of two (2) hours per week. The observations must include two (2) complete heats. The emissions observations must be recorded as they are made, with observations recorded at fifteen (15) second intervals. If any exceedance of visible emission standards is observed at the BOF roof monitors, the permittee shall conduct an investigation into the cause of the exceedance. The investigation shall consider data collected by the cameras that are required by Consent Order 6-2006, Paragraph 12(A). **(MDEQ Consent Order 6-2006, Paragraph 12(B)(i) & (ii))**

See Appendices 3-1 and 7-1

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
5. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

6. The permittee shall prepare a report for each exceedance in which it shall identify the date, time and extent of the exceedance, as well as a description of the investigation into the cause of the exceedance. The report shall identify the cause of the exceedance, to the extent ascertainable, and identify corrective action to prevent a recurrence of the exceedance. The reports generated pursuant to this requirement shall be sent to the AQD District Supervisor within fourteen (14) days of the occurrence. **(MDEQ Consent Order 6-2006, Paragraph 12(B)(iii))**
7. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report of COMS exceedances in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter as required in Appendix 3.3-1.² **(R 336.1331)**

See Appendices 3-1 and 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFESP	204 ²	213 ²	R 336.1225 R 336.2803, R 336.2804
2. SCBOFBH	222 ²	200 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF as specified in this section, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**
2. Records required under 40 CFR Part 63, Subpart FFFFF shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
3. The permittee shall evaluate the effectiveness of the draft set point program each time any new draft control equipment or instruments are installed that could cause affect use of the appropriate draft point setting. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(i))**
4. The permittee may petition in writing for a modification or termination of the draft set point program as described in SC VI.19 of this section. The petition shall be submitted to the AQD District Supervisor for approval. In any such petition, the permittee has the burden of proof. **(MDEQ Consent Order 6-2006, Paragraph 11(C)(ii))**
5. Upon approval of the AQD District Supervisor, the permittee may change the specified location of the cameras detailed in SC VI.26 of this section. Such approval shall be in writing and will be incorporated by reference as a revision to MDEQ Consent Order 6-2006. **(MDEQ Consent Order 6-2006, Paragraph 12(A)(vii))**
6. Following installation of the BOF secondary emission control equipment, the permittee may petition the AQD District Supervisor for elimination of any or all of the requirements for camera operation or visible emissions monitoring as described in SC VI.24, VI.25, and VI.26 of this section. **(MDEQ Consent Order 6-2006, Paragraph 12(B)(iv))**

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

7. The permittee shall not conduct any torch cutting of scrap at the EAF Stockhouse or any outside areas for use in the BOF, exclusive of demolition of existing facility structures, building and equipment, and emergencies unless it first obtains any necessary permit from the AQD to conduct such activity. **(MDEQ Consent Order 6-2006, Paragraph 11(A), R 336.1301, R 336.1901)**
8. The permittee shall record the specific information as required in the on-site screening procedure and scrap management plan. All such records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.¹ **(R 336.1228, R 336.1901)**
9. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

**EULADLEREFINE1
EMISSION UNIT CONDITIONS**

DESCRIPTION

No. 1 Ladle refining facility controlled by a baghouse

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	5% Opacity ²	6-minute average	EULADLEREFINE1 Baghouse stack	SC V.3, VI.2	R 336.1301(1)(c)
2. Visible Emissions	No visible emissions ²	Instantaneous	EULADLEREFINE1 Roof monitors	SC VI.3	R 336.1205(1)(a) & (b) R 336.1301(1)(c) R 336.2801(ee) R 336.2802(4) R 336.2902(2)
3. Visible Emissions	20% Opacity	3-minute average	EULADLEREFINE1 Roof Monitors	SC V.1, V.2	40 CFR 63.7790(a)
4. PM	0.005 gr/dscf ²	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.6	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
5. PM	0.01 gr/dscf	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.1, V.2	40 CFR 63.7790(a)
6. PM	6.33 pph ²	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM10	6.65 pph ²	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM2.5	6.65 pph ²	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.1205(1)(a) & (b) R 336.2803, R336.2804
9. Pb	0.022 pph ²	Test Protocol*	EULADLEREFINE1 Baghouse stack	SC V.3	R 336.2804 40 CFR 52.21 (d)

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EULADLEREFINE1 and associated baghouse shall be operated and maintained 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 shall develop and implement a written startup, shutdown and malfunction plan for EULADLEREFINE1 and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EULADLEREFINE1 unless the baghouse is installed and operating properly.² **(R 336.1331(c), R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for particulate matter emissions at least once every five years. **(40 CFR 63.7821)**
2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**
3. Within three years of May 12, 2014, the permittee shall verify visible emissions, PM, PM10, PM2.5 and Pb emission rates from the EULADLEREFINE1 baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after the date of issuance of this permit, the permittee shall obtain Pb dust concentrations in the EULADLEREFINE1 baghouse hoppers. Subsequent Pb sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including baghouse dust analysis for Pb, to the AQD within 60 days following the last date of the test.² **(R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
4. The permittee shall verify the capture efficiency for EULADLEREFINE1 using computational fluid dynamics (CFD) modeling or other approved method within three years of May 12, 2014. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE1 baghouse stack at least once every month during EULADLEREFINE1 processing activity for a minimum of one complete heat or a maximum of one hour during a heat. 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.² **(R 336.1301(c))**
3. The permittee shall perform Method 9 certified visible emission observation for the EULADLEREFINE1 roof monitors at least once a week during EULADLEREFINE1 operations for a minimum of one complete heat or a maximum of one hour during a heat. 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.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
4. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the operation and maintenance manual. **(40 CFR 63.7830(b)(4)(i))**
5. The permittee shall conduct inspections of the Ladle Refining Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**
 - 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 (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.
 - 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.
6. Except as allowed in SC VI.8, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**
 - a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
 - c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**
7. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.8. **(40 CFR 63.7831(f)(6))**

8. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
9. The permittee shall monitor the process as required by 40 CFR Part 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
10. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**
11. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4), CFR 63.7842(d))**
12. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.8. **(40 CFR 63.7833(c)(1))**
13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7842(a)(1))**
14. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
15. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
5. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR Part 63.7841(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVLADELREFINE1	108 ²	148 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**
2. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

**EULADLEREFINE2
EMISSION UNIT CONDITIONS**

DESCRIPTION

No. 2 Ladle refining facility controlled by a baghouse.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	5% Opacity ²	6-minute average	EULADLEREFINE2 Baghouse stack	SC V.3, VI.2	R 336.1301(1)(c)
2. Visible Emissions	No visible emissions ²	Instantaneous	EULADLEREFINE2 Roof monitors	SC VI.3	R 336.1205(1)(a) & (b) R 336.1301(1)(c) R 336.2801(ee) R 336.2802(4) R 336.2902(2)
3. Visible Emissions	20% Opacity	3-minute average	EULADLEREFINE2 Roof monitors	SC V.1, V.2	40 CFR 63.7790(a)
4. PM	0.005 gr/dscf ²	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
5. PM	0.01 gr/dscf	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.1, V.2, V.3	40 CFR 63.7790(a)
6. PM	3.72 pph ²	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.1331(1)(c) R 336.2801(ee) R 336.2802(4)
7. PM10	3.91 pph ²	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a)&(b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
8. PM2.5	3.91 pph ²	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
9. Pb	0.013 pph ²	Test Protocol*	EULADLEREFINE2 Baghouse stack	SC V.3	R 336.2804

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The EULADLEREFINE2 and associated baghouse shall be operated and maintained 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 shall develop and implement a written startup, shutdown and malfunction plan for EULADLEREFINE2 and the associated emission control system and operate in accordance with the plan during periods of startup, shutdown, and malfunction. **(40 CFR 63.7810(c), 40 CFR 63.7835(b), 40 CFR 63.6(e)(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EULADLEREFINE2 unless the baghouse is installed and operating properly.² **(R 336.1331(c), R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct performance tests for particulate matter emissions at least once during the ROP renewal period. **(40 CFR 63.7821)**
2. Sampling during the performance tests will occur only when the operations being controlled are in operation. **(40 CFR 63.7822(h))**
3. Within three years of May 12, 2014, the permittee shall verify visible emissions, PM, PM10, PM2.5 and Pb emission rates from the EULADLEREFINE2 baghouse stack by testing at owner's expense, in accordance with Department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after May 12, 2014, the permittee shall obtain Pb dust concentrations in the EULADLEREFINE2 baghouse hoppers. Subsequent Pb sampling of the baghouse dust is not required. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including baghouse dust analysis for Pb, to the AQD within 60 days following the last date of the test.² **(R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
4. The permittee shall verify the capture efficiency for EULADLEREFINE2 with computational fluid dynamics (CFD) modeling or other approved method within three years of May 12, 2014. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

2. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE2 baghouse stack at least once every month during EULADLEREFINE2 processing activity for a minimum of one complete heat or a maximum of one hour during a heat. 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.² **(R 336.1301(c))**
3. The permittee shall perform a Method 9 certified visible emission observation for the EULADLEREFINE2 roof monitors at least once a week during EULADLEREFINE2 operations for a minimum of one complete heat or a maximum of one hour during a heat. 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.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
4. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the operation and maintenance manual. **(40 CFR 63.7830(b)(4)(i))**
5. The permittee shall conduct inspections of the Ladle Refining Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**
 - 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.
6. Except as allowed in SC VI.8, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control: **(40 CFR 63.7831(f))**
 - a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**
 - c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**
7. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan. This requirement does not apply if the permittee installs COMS as specified in SC VI.8. **(40 CFR 63.7831(f)(6))**

8. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
9. The permittee shall monitor the process as required by 40 CFR Part 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
10. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**
11. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm. **(40 CFR 63.7833(c)(4), CFR 63.7842(d))**
12. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period. This requirement does not apply if the permittee installs COMS as specified in SC VI.8. **(40 CFR 63.7833(c)(1))**
13. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**
14. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
15. The permittee shall maintain records associated with performance tests, and performance evaluations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**
5. When actions taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with the requirements of 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVLADELREFINE2	72 ²	150 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the emission limitations and operation and maintenance requirements from 40 CFR Part 63, Subpart FFFFF, except during periods of startup, shutdown and malfunction. **(40 CFR 63.7810(a))**
2. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be keep offsite. **(40 CFR 63.7843(b) and (c))**
3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

**EUVACUUMDEGASSER
EMISSION UNIT CONDITIONS**

DESCRIPTION

Vacuum degasser

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Flare

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Carbon Monoxide	a. 2.42 pph ²	Hourly*	Vacuum degasser	SC V.1	40 CFR 52.21(b)(3)
	b. 10.08 tons per year ²	Yearly	Vacuum degasser	SC V.1, VI.1	40 CFR 52.21(b)(3)
2. Visible Emissions	No visible emissions ²	6-minute average	Vacuum degasser	SC VI.2	R 336.1201, 40 CFR 52.21(b)(3)

* Based upon a flare destruction efficiency of 99.5%

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The vacuum degasser shall not be operated unless the flare is installed and operating properly. **(R 336.1213(3)(c)(ii))**
2. The vacuum degasser shall not be operated more than 8,350 hours per year. **(R 336.1213(4)(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 carbon monoxide emission test at least once during the five year life cycle of this permit. Performance of the stack test shall be according to the schedule stipulated in the Source Wide requirements – SC V.1 of this section or more frequently upon the request of the AQD. No less than 30 days prior to testing, a complete stack test protocol must be submitted to the AQD for approval. The final plan must be approved by the AQD prior to testing. **(R 336.1213(3))**

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 following information:
 - a. Number of heats processed by the vacuum degasser, monthly.² **(R 336.1201(3), R 336.1213(3))**
 - b. Total hours of operation for the vacuum degasser per month.² **(R 336.1201(3), R 336.1213(3))**
 - c. Monitor the pilot light status daily. **(R 336.1213(3))**
2. The permittee shall perform a Method 9 certified visible emission observation of the vacuum degasser operation at least once every quarter during the processing activity. 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. **(R 336.1213(3))**

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EUHANDSCARFING
EMISSION UNIT CONDITIONS**

DESCRIPTION

Hand scarfing operation

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 ²	6-minute average	Hand scarfing	Method 9, SC VI.1	R 336.1301, MDEQ Consent Order 6-2006(11)(f)(v)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Only one slab with manganese content in excess of 0.5% may be hand scarfed at any one time. (R 336.1213(3), MDEQ Consent Order 6-2006(11)(F)(ii))

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

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 Method 9 visible emissions observation once per week to be done during daylight hours when hand scarfing of slabs containing manganese in excess of 0.5% is being conducted. The permittee shall maintain records of the Method 9 visible emissions observations. (R 336.1213(3), MDEQ Consent Order 6-2006(11)(F)(iv))
2. The permittee shall maintain a log sheet that identifies each slab hand scarfed, the manganese content of the slab and the start and stop times for hand scarfing of each slab with manganese content in excess of 0.5%. (R 336.1213(3), MDEQ Consent Order 6-2006(11)(F)(iii))

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. Prior to hand scarfing any slab, the permittee shall determine the manganese content of the slab, based on available process data collected during the iron and steelmaking process. **(R 336.1213(3), Consent Order 6-2006(11)(F)(i))**

Footnotes:

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

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

**EUMACHSCARF
 EMISSION UNIT CONDITIONS**

DESCRIPTION

One machine scarfer equipped with a robotic arm with an oxy-fuel torch to remove skin defects from the slab. This operation is enclosed and will be controlled by a baghouse.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	5% Opacity ²	6-minute average	EUMACHSCARF Baghouse stack	SC V.1, VI.4	R 336.1301(1)(c) R 336.2810
2. Visible Emissions	25% Opacity ²	1.5-minute average	EUMACHSCARF Baghouse stack	SC V.1, VI.4	R 336.1359
3. PM	0.003 gr/dscf ²	Test Protocol*	EUMACHSCARF Baghouse stack	SC V.1	R 336.1331
4. PM10	0.005 gr/dscf ²	Test Protocol*	EUMACHSCARF Baghouse stack	SC V.1	R 336.2810
5. PM10	4.52 pph ²	Test Protocol*	EUMACHSCARF Baghouse stack	SC V.1	R 336.2803 R 336.2804 R 336.2810
6. PM2.5	0.005 gr/ds ² cf	Test Protocol*	EUMACHSCARF Baghouse stack	SC V.1	R 336.2810
7. PM2.5	4.52 pph ²	Test Protocol*	EUMACHSCARF Baghouse stack	SC V.1	R 336.2803 R 336.2804 R 336.2810

* Test protocol shall specify averaging time

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUMACHSCARF unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse is implemented and maintained. 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.² (R 336.1225, R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810)

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUMACHSCARF unless the baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810)
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the pressure drop across the baghouse and each baghouse compartment for EUMACHSCARF on a continuous basis. The appropriate pressure drop range will be specified in the MAP.² (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, R 336.2802, R 336.2810)

V. TESTING/SAMPLING

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

1. The permittee shall verify the visible emissions, PM, PM10, and PM2.5 emission rates from the EUMACHSCARF baghouse stack by testing at owner's expense, in accordance with Department requirements at least once every five years from completion of previous test. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 45 days following the last date of the test.² (R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)

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 last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))
2. The permittee shall monitor the pressure drop on a continuous basis across the baghouse and for each compartment of EUMACHSCARF.² (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, R 336.2802, 40 CFR 64.6(c)(1)(i and ii))
3. The permittee shall record the pressure drop across the baghouse and for each compartment once per shift during scarfing operations for EUMACHSCARF.² A pressure drop of between 7-17" w.c. for pressure drop across the baghouse shall be considered normal and can be changed upon the request of the permittee, with the approval of the AQD District Supervisor. The permittee shall initiate appropriate maintenance activity on the baghouse if the pressure drop exceeds the normal range. (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, R 336.2802, 40 CFR 64.6(c)(1)(i and ii))
4. The permittee shall perform a Method 9 and Method 9A certified visible emission observation of the EUMACHSCARF baghouse stack at least once every calendar week for a minimum of one hour during

machine scarfing activities and shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for EUMACHSCARF. At a minimum, records shall include the date, time, name of observer/reader, presence of visible emissions, and corrective actions taken if necessary. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1910)**

5. The permittee shall keep, in a satisfactory manner, a log of the hours of operation and number of tons scarfed per day. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1224, R 336.1225, R 336.2802, R 336.2810)**
6. The permittee shall perform monthly baghouse inspections to ensure optimal operation of the baghouse is maintained. The permittee shall keep records of the monthly baghouse inspections and maintenance activities on file at the facility and make them available to the department upon request.² **(R 336.1910)**
7. An excursion is a departure from the pressure drop range defined in SC VI. 3 and the MAP. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUMACHSCARF (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 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 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), 40 CFR 64.7(c))**
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), 40 CFR 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))**

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))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVSCARFBH	72.1 ²	160 ²	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable 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 to the ROP 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:

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

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
FGB&CFURNACES	B & C Blast Furnace casthouses and stoves	EUBFURNACE EUCFURNACE
FGBOFSHOP	Two Basic Oxygen Furnace vessels and BOF Reladling south and north	EUBOF EURELADLINGBOF
FGANNEALFURNACES	52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building.	EUANNEALFURNACES
FGHSMFURNACES123	Three Slab reheat furnace Nos. 1, 2 and 3 located in the Hot Strip Mill Building.	EUREHEATFURN1 EUREHEATFURN2 EUREHEATFURN3
FGENG2007>500	Two SI engines at a major source greater than 500 horsepower.	EUENGCBFCTC EUENGCBFHS
FGENG2007<500	Four SI engines at a major source less than 500 horsepower and limited use.	EUENGCBFBS EUENGWSAC EUENGCBFDM EUENGCBFGS
FGSCARFBLDG	Building fugitive emission sources from the operations in the scarfing building.	EUSCARFBLDGHEAT EUMACHSCARF EUMANUALSCARF EUCUTSLICE
FGCOLDCLEANERS	Cold cleaners with applicable requirements.	EUCOLDCLEANERS
FGRULE290	Emission units that are exempt pursuant to R 336.1290.	EUBOFLIMERECEIVI, EUCKOKEUNLOADEE

**FGB&CFURNACES
 FLEX GROUP CONDITIONS**

DESCRIPTION

B & C Blast Furnace casthouses and stoves

Emission Units: EUBFURNACE, EUCFURNACE

POLLUTION CONTROL EQUIPMENT

Casthouse: baghouse; Stoves: Low-NOx technology, venturi scrubber and mechanical collector for blast furnace gas precleaning

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	87.4 tpy ²	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
2. PM	27.75 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM	35.0 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stoves	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM10	87.01 tpy ²	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804 (c)
5. PM10	15.04 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
6. PM10	99.1 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stoves	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
7. PM2.5	87.01 tpy ²	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804

Section 1 – AK Steel Dearborn Works

ROP No.: MI-ROP-A8640-2016a

Expiration Date: April 22, 2021

PTI No.: MI-PTI- A8640-2016a

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
8. PM2.5	7.27 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
9. PM2.5	99.1 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
10. SO ₂	1,188 tpy ²	12-month rolling average as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks and Stove stacks	SC VI.6	R 336.2803, R 336.2804
11. NOx	25.74 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
12. NOx	439.2 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
13. CO	8,760 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.2810 R 336.2804
14. VOC	49.42 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.1702(a)
15. Pb	0.05 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1205(1)(a) & (b) R 336.2804
16. Pb	0.044 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1205(1)(a) & (b) R 336.2804
17. Pb	0.06 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1205(1)(a) & (b) R 336.2804
18. Mn	0.24 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Baghouse stacks	SC VI.3	R 336.1225
19. Mn	0.26 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Roof monitors	SC VI.4	R 336.1225

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
20. Mn	0.06 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1225
21. Total Hg	0.0146 tpy ¹	12-month rolling time period as determined at the end of each calendar month	FGB&CFURNACES Stove stacks	SC VI.5	R 336.1228

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Production	Combined maximum of 3,321,500 tons per year ²	12-month rolling time period basis as determined at the end of each calendar month	FGB&CFURNACES	SC VI. 2	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO₂ emissions and flow from each EUBFURNACE stove stack and baghouse stack on a continuous basis.² (R 336.2803, R 336.2804)

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)
2. The permittee shall keep on a daily basis, monthly, and previous 12-month rolling time period record of the amount of iron production from FGB&CFURNACES combined at the B and C Blast Furnace Casthouses. The permittee shall keep the records on file at the facility and make them available to the department upon request.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)
3. The permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, NOx, VOC, Pb and Mn emission rates from FGB&CFURNACES baghouse stacks based upon stack testing data and iron throughput limits. The permittee shall keep the records on file at the facility and make them available to the department upon request.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.1702, R 336.2802(4), R 336.2803, R 336.2804, R 336.2902(2), 40 CFR Part 51 (Appendix S), 40 CFR 52.21 (a)(2), 40 CFR 52.21 (c) & (d))

4. Using the method shown in Appendix 7.1-1, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, Pb and Mn emission calculations from FGB&CFURNACES roof monitor. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
5. Using the method shown in Appendix 7.1-1, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, NOx, CO, Pb, Mn and Total Hg emission rates from FGB&CFURNACES stoves. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1228, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
6. The permittee shall continuously monitor and record, in a satisfactory manner, the SO₂ emissions and flow from each the EUBFURNACE stove stack and baghouse stack and each EUCFURNACE stove stack and baghouse stack. The permittee shall operate the Continuous Emission Rate Monitoring System (CERMS) to meet the timelines, requirements and reporting detailed in Appendix 3.1-1 and 3.2-1 and shall use the CERMS data for determining compliance with SC I.10.² **(R 336.2803, R 336.2804)**
7. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month records of SO₂ emission calculations for FGB&CFURNACES, using actual emissions data obtained from the CERMS installed on the EUBFURNACE stove stack and baghouse stack and the EUCFURNACE stove stack and baghouse stack. The permittee shall keep all records on file at the facility and make them available to the department upon request.² **(R 336.2803, R 336.2804)**
8. The permittee shall demonstrate continuous compliance for each affected source subject to an emission limit or opacity limit in 40 CFR 63.7790(a). **(40 CFR 63.7833(a))**
9. The permittee shall demonstrate continuous compliance with the operation and maintenance requirements as specified in 40 CFR 63.7834(a) and (b). **(40 CFR 63.7834(a) and (b))**
10. The permittee shall comply with the recordkeeping requirements as specified in 40 CFR 63.7842(a), (b), (c), and (d). **(40 CFR 63.7842(a), (b), (c), and (d))**

See Appendices 3-1 and 7-1

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 comply with the notification requirement as specified in 40 CFR 63.7840(a), (d), and (e). **(40 CFR 63.7840(a), (d), and (e))**
5. The permittee shall comply with the notification requirement as specified in 40 CFR 63.7841(a), (b), (c) and (d). **(40 CFR 63.7841(a), (b), (c) and (d))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall utilize written operating procedures designed to minimize emissions from treadwell car operations, including filling the cars with molten iron to 90% capacity when possible, minimizing the impact of Treadwell cars when they are coupled, and accelerating the cars at a slow and steady rate, to the extent possible.² **(R 336.1901, R 336.1301)**

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rules 201(1)(b).

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

**FGBOFSHOP
FLEX GROUP CONDITIONS**

DESCRIPTION

Two Basic Oxygen Furnace vessels and BOF Reladling south and north

Emission Units: EUBOF, EURELADLINGBOF

POLLUTION CONTROL EQUIPMENT

One Electrostatic Precipitator for both BOF Vessels, Secondary Baghouse for process emissions from the two Basic Oxygen Furnace vessels and BOF Reladling south and north.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	3-minute average	FGBOFSHOP Secondary Baghouse stack	SC V.6, VI.2	R 336.1364(1) R 336.1365(1)
2. Visible Emissions	15% Opacity ²	3-minute average	FGBOFSHOP Roof Monitor	SC VI.22	R 336.1331
3. PM	0.003 gr/dscf ²	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
4. PM	0.01 gr/dscf	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.1, V.2, V.3	40 CFR 63.7990(a)
5. PM	15.6 pph ²	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
6. PM10	17.71 pph ²	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
7. PM2.5	17.71 pph ²	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2803, R 336.2804
8. NOx	10.2 pph ²	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.6	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
9. NOx	39.7 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGBOFSHOP Secondary Baghouse stack	SC VI.20	R 336.1205(1)(a) & (b) R 336.2802(4) R 336.2803, R 336.2804

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. Pb	0.067 pph ²	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1205(1)(a)&(b) R 336.2804
11. Mn	0.07 pph ¹	Test Protocol*	FGBOFSHOP Secondary Baghouse stack	SC V.7	R 336.1225
12. Mn	0.10 pph ¹	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1225
13. Total Hg	0.0086 pph ¹	Test Protocol*	FGBOFSHOP Secondary Baghouse and ESP stacks	SC V.7	R 336.1228

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Iron Processing	10,000 tons per day ²	Calendar day	FGBOFSHOP (Reladling, Desulfurization)	SC VI. 21	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain a copy of the BOF secondary baghouse capture system design plans and a signed certification from the designer on site, certifying that the baghouse capture system is designed to achieve no less than 98% collection efficiency for both the BOF secondary emissions and the reladling south emissions. These design plans shall include a range of BOF vessel angles to achieve optimum emission capture.² (R 336.1205(1)(a) & (b), R 336.1301, R 336.1331, R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

IV. DESIGN/EQUIPMENT PARAMETERS

- 1 The permittee shall not operate the Basic Oxygen Furnaces or the Reladling South Operation unless the secondary baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1301, R 336.1331(c), R 336.1910, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)
2. The permittee shall operate and maintain the following modifications to FGBOFSHOP which were completed within 180 days of May 12, 2014:
 - a. Install a steam ring or other equivalent barrier at A and B Vessels to mitigate the potential for emissions to escape through the lance hole,
 - b. Close the gaps at the reline tower door/boiler hood door in the primary capture hood, and;
 - c. Modify the charge hood flap to prevent emissions escaping during charge as the flap is drawn.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

V. TESTING/SAMPLING

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

1. The permittee shall conduct overlapping performance tests for particulate matter emissions from the BOF secondary baghouse and opacity from the BOF roof monitor (including reladling operation and BOF oxygen blows) at least once during the ROP renewal period. **(40 CFR 63.7821)**
2. The permittee shall conduct performance tests for particulate matter emissions from the ESP stack (including BOF oxygen blows) at least twice during the ROP renewal period. Testing shall be performed only during the steel production cycle and sampling shall be performed over an integral number of steel production cycles. **(40 CFR 63.7821, 40 CFR 63.7822(g)(1) and (2))**
3. The permittee shall determine and record the starting and stopping times of the steel production cycle. **(40 CFR 63.7823(d)(5))**
4. 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 40 CFR 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))**
5. 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))**
6. Within three years of May 12, 2014, the permittee shall verify visible emissions, PM, PM10, PM2.5, and NOx emission rates from the BOF secondary baghouse stack during typical operations (including reladling operation) by testing at owner's expense, in accordance with department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan 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.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804, R 336.2802(4))**
7. Within three years of May 12, 2014, the permittee shall verify and quantify Mn, Pb, and total Hg emissions rates from the FGBOFSHOP (secondary baghouse stack and ESP stack simultaneously) by testing at owner's expense, in accordance with department requirements. Subsequent testing will be required once every three years from the completion of the previous stack test. In addition, at the time of the first testing after May 12, 2014, the permittee shall obtain Mn, Pb and Hg dust concentrations in both the ESP hoppers and the baghouse hoppers. Subsequent Mn, Pb and Hg sampling of the ESP and baghouse hoppers is not required, unless requested by the AQD District Supervisor. No less than 45 days prior to testing, the permittee shall

submit a complete test plan to the AQD Technical Programs Unit and the District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results, including ESP and baghouse dust analysis for Mn, Pb and Hg, to the AQD within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee))**

8. The permittee shall verify the capture efficiency for FGBOFSHOP using computational fluid dynamics (CFD) modeling or other approved method within three years of May 12, 2014. The permittee shall perform CFD modeling or other approved method to verify the capture efficiency every three years thereafter. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD District Office. The AQD must approve the final plan prior to testing. The permittee shall submit a complete report of the analysis results to the AQD within 60 days following the completion of the analysis.² **(R 336.1205(1)(a) & (b), R 336.1301, R 336.2001, R 336.2003, R336.2004, R 336.2801(ee))**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall perform a Method 9 certified visible emission observation for the FGBOFSHOP secondary baghouse stack at least once every month during BOF operations (including reladling operations). 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.² **(R 336.1364(1), R 336.1365(1))**
3. The permittee shall prepare, and operate at all times according to, a written operation and maintenance plan for the baghouse capture system. The plan shall address each of the following: **(40 CFR 63.7800(b))**
 - a. Weekly inspections of the equipment that is important to the performance of the total capture system, including, but not limited to, observations of the physical appearance of the equipment and requirements to repair any defect or deficiency in the capture system before the next scheduled inspection; **(R 336.1301, R 336.1364(1), 40 CFR 63.7800(b)(1))**
 - b. Operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system including, but not limited to, 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. **(40 CFR 63.7800(b)(3))**
4. The permittee shall install, maintain, and operate a Continuous Parametric Monitoring System (CPMS) for the baghouse capture system according to the following requirements of 40 CFR 63.7830(a): **(40 CFR 63.7830(a))**
 - a. Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, the permittee shall make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.
 - b. If the permittee uses a flow measurement device to monitor the operating limit parameter for a capture system applied to secondary emissions from a BOPF, the permittee shall monitor the average rate for each steel production cycle (e.g., the average actual volumetric flow rate through each separately ducted hood for each steel production cycle, the average total volumetric flow rate at the inlet to the control device for each steel production cycle) according to the requirements in §63.7832.

5. The permittee shall monitor the pressure drop across each baghouse compartment daily to ensure that the pressure drop is within the normal operating range identified in the manual, if applicable. **(40 CFR 63.7830(b)(4)(i))**
6. The permittee shall conduct inspections of the BOF Secondary Baghouse at the specified frequencies according to the requirements in paragraphs (a) through (h) below. The permittee shall maintain records needed to document conformance with these requirements. **(40 CFR 63.7830(b)(4), 40 CFR 63.7833(c))**
 - 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.
7. If applicable, the permittee shall develop and make available for inspection upon request by AQD, a site-specific monitoring plan that addresses all of the following requirements for the baghouse capture system: **(40 CFR 63.7831(a))**
 - a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each hooded emission point such that the measurement is representative of capture of the exhaust emissions; **(40 CFR 63.7831(a)(1))**
 - b. Performance and equipment specifications 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 the general requirements of 40 CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8); **(40 CFR 63.7831(a)(4))**
 - e. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and **(40 CFR 63.7831(a)(5))**
 - f. Ongoing recordkeeping and reporting procedures in accordance the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.7831(a)(6))**
8. If applicable, the permittee shall operate and maintain the capture system CPMS in continuous operation according to the site-specific monitoring plan. Unless otherwise specified, the CPMS shall: **(40 CFR 63.7831(b))**
 - a. 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))**
 - b. Provide valid hourly data for at least 95 percent of every averaging period; and **(40 CFR 63.7831(b)(2))**
 - c. Determine and record the hourly average of all recorded readings. **(40 CFR 63.7831(b)(3))**
9. Except as allowed in SC VI.11, the permittee shall install, operate, and maintain a bag leak detection system meeting the following specifications on the baghouse control, if applicable: **(40 CFR 63.7831(f))**
 - a. Certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic foot (0.0044 grains per actual cubic foot). **(40 CFR 63.7831(f)(1))**
 - b. Provides output of relative changes in particulate matter loadings. **(40 CFR 63.7831(f)(2))**

- c. Is equipped with an alarm, located such that it is heard by appropriate plant personnel that sounds an alarm when an increase in relative particulate loadings is detected over a preset level. **(40 CFR 63.7831(f)(3))**
 - d. Initially adjusted by establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device and setting the alarm set points and alarm delay time. **(40 CFR 63.7831(f)(5))**
10. Following the initial adjustment of the bag leak detection system, the permittee shall not adjust the sensitivity or range, averaging period, alarm set points or alarm delay time except as specified in the operation and maintenance plan, if applicable. This requirement does not apply if the permittee installs COMS as specified in SC VI.11. **(40 CFR 63.7831(f)(6))**
 11. If permittee does not install and operate a bag leak detection system, the permittee shall install, operate, and maintain a COMS according to the requirements in 40 CFR 63.7831(h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.7832. **(40 CFR 63.7830(b))**
 12. The permittee shall monitor the process as required by 40 CFR 63, Subpart FFFFF, except during monitoring malfunctions, out-of-control periods, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments). **(40 CFR 63.7832(a))**
 13. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used in data averages and calculations used to report emission or operating levels or to fulfill minimum data availability requirements. **(40 CFR 63.7832(b))**
 14. 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))**
 15. If the sensitivity of the bag leak detection system is changed beyond the limits established pursuant to 40 CFR 63.7831(f)(6), a copy of a written certification by a responsible official shall be included in the semiannual compliance report for that period, if applicable. This requirement does not apply if the permittee installs COMS as specified in SC VI.11. **(40 CFR 63.7833(c)(1))**
 16. The permittee shall maintain a copy of each notification and report submitted under 40 CFR Part 63, Subpart FFFFF, including all documentation supporting the initial notification or notification of compliance status submitted according to 40 CFR 63.10(b)(2)(xiv)). **(40 CFR 63.7842(a)(1))**
 17. The permittee shall maintain the records required for startup, shutdown and malfunction under 40 CFR 63.6(e)(3)(iii) through (v). **(40 CFR 63.7842(a)(2))**
 18. The permittee shall maintain records associated with performance tests, performance evaluations, and opacity observations as required by 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7842(a)(3))**
 19. The permittee shall comply with the recordkeeping requirement as specified in 40 CFR Part 63, Subpart FFFFF 63.7842(a), (b), (c) and (d). **(40 CFR 63.7842(a), (b), (c) and (d))**
 20. Using the method shown in Appendix 7-1, the permittee shall calculate monthly and 12-month rolling time period NO_x emission calculations for FGBOFSHOP secondary baghouse stack. The permittee shall keep all records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
 21. The permittee shall keep on a daily basis, records of the amount of iron processed at the BOF shop. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2802(4), R 336.2801(ee), R 336.2803, R 336.2804)**
 22. The permittee shall perform a Method 9C certified visible emission observation for the FGBOFSHOP roof monitors at least three times per week on separate days during BOF operations for a minimum of two hours which must include two complete heats. 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.² **(R 336.1331)**

- a. If visible emissions from the EUBOFSHOP Roof Monitor exhibit opacity greater than 10%, on a three-minute average, the permittee shall investigate the reasons for the exceedance and shall verify that the appropriate work practices set forth in SC VI.22.b were followed. Any instance of EUBOFSHOP Roof Monitor opacity in excess of 10% for a 3-minute average shall be defined herein as a period of Elevated Opacity.
 - b. In the event of a period of Elevated Opacity, the permittee must be able to demonstrate that the following work practice standards for FGBOFSHOP were followed. The following work practices can be amended or revised upon approval of the AQD District Supervisor:
 - i. Hot metal shall not be poured at the reladling station until the hood is in the closed position.
 - ii. Additive injections shall not occur until the desulfurization baghouse ID fan is operating at greater than 65 amps.
 - iii. The fan speed for the BOF Secondary Baghouse control system shall be maintained in accordance with the set points (+/- 2% of the measured speed) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
 - iv. The dampers in the BOF Secondary capture system shall be maintained in accordance the set points (+/- 10% the measured position) set forth in the updated operation and maintenance plan during charging and/or tapping operations at the BOF vessels as applicable.
 - v. The hot metal charges at the BOF vessels are a minimum 90 second long.
 - vi. During charging of the BOF Vessels the charge angle shall be no less than 40 degrees and not exceed 55 degrees from vertical as the charge progresses.
 - vii. During the oxygen blow, the permittee shall observe the vessel for slopping and shall manually reduce the oxygen rate if visible emissions from the slopping appear to have the ability to cause an exceedance of the opacity limit at the BOF Roof Monitor.
 - viii. Charging should not be conducted until the associated dampers have been set to charging mode and had time to move to correct position.
 - ix. After charging, the vessel shall not be moved to an upright position until online mode has been selected.
 - x. The current operating mode on the off charge vessel shall not change from tapping to online or offline, or online to offline mode, until the charge is complete.
 - xi. Maintain steel ladle under the tapping hood during kicker addition until the emissions have subsided.
 - xii. Tapping should not be conducted until the associated dampers have been set to tapping mode and had time to move to correct position.² **(R 336.12051(a) & (b), R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
 - c. In the event of deviation from any work practice requirement, the permittee shall undertake immediate corrective action to address the deviation. The permittee shall keep a written record of each corrective action taken. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
23. The permittee shall monitor and record the work practice standards listed in SC VI.22.b using a data control system and work logs. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

24. The permittee shall conduct quarterly visual inspections to confirm the continued presence of physical barriers utilized to assist in maintaining capture efficiency, including shrouds and gap closures. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
25. The permittee shall verify the fan flow conditions for the BOF Secondary Baghouse, as specified in the operation and maintenance plan, at least once per calendar year or more frequently as deemed necessary by the AQD District Supervisor. The flow rate verifications will be conducted in the ductwork riser connecting the charge and tap hoods to the main duct connecting it to the baghouse avoiding, to the extent possible, cyclonic flows. If the flow rate verification identifies a need to revise any set points, then the permittee shall update the fan speed and/or damper positions, as necessary, in the operation and maintenance plan as well as all procedures necessary to implement any such new set points. Any changes in the set points are subject to a retest under SC V.5. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
26. The permittee shall verify the damper positions for the BOF Secondary Baghouse on a quarterly basis. The permittee shall also inspect and calibrate the damper position to ensure that the actuator is achieving the desired set point for each operating scenario as defined in the operation and maintenance plan. The permittee shall keep the records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
27. The permittee shall verify the fan speed/amperage set point for the BOF Secondary Baghouse on a quarterly basis, this will include verification of fan speed measurements and calibrations using an independent measurement of the amperage/speed. The permittee shall keep the records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
28. The permittee shall perform preventative maintenance on the EUBOFSHOP ESP and baghouses as specified in the operation and maintenance plan for each control device. **(40 CFR 63.7834(a)(2))**
29. The permittee shall maintain records of the time corrective action was initiated, the corrective action taken, and the date when corrective actions were completed in response to a bag leak detection system alarm, if applicable. **(40 CFR 63.7833(c)(4), 40 CFR 63.7842(d))**
30. The permittee shall maintain a copy of the current operation and maintenance plans required in SC VI.3 onsite and available for inspection. **(40 CFR 63.7834(b))**

See Appendix 7-1

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 notification of intent to perform any performance testing under 40 CFR Part 63, Subpart FFFFF at least 60 calendar days before testing is to begin. **(40 CFR 63.7840(d))**

5. Any time an action taken by the permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall comply with all requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.7841(c))**
6. The permittee shall provide quarterly reports to the AQD District Office regarding each instance of Elevated Opacity. The report shall include the relevant visible emissions readings, documentation of compliance with work practice requirements, and identification of all corrective actions taken. The quarterly report shall be provided by the last day of the month following the end of each calendar quarter.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
7. Within 60 days of completing the CFD modeling or other approved method required in SC V.8, the permittee shall submit a report regarding the evaluation of emission collection equipment to the AQD District Supervisor that will identify whether boundary conditions have materially changed. The report shall state whether equipment or process adjustments are necessary to maintain the minimum capture efficiency indicated by the computational fluid dynamics (CFD) modeling submitted with the 182-05C Application and if so, identify what adjustments are anticipated and identify a schedule for making such adjustments.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOFESP	204 ²	213 ²	R 336.1225 R 336.2803, R 336.2804
2. SVBOFBH	222 ²	200 ²	R 336.1225 R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

1. Records required under 40 CFR Part 63, Subpart FFFFF and specified in this section shall be retained for five years. The records must be maintained onsite for the two most recent years of the five year period. Records from the remaining three years of the five year period may be kept offsite. **(40 CFR 63.7843(b) and (c))**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart FFFFF for Integrated Iron and Steel Manufacturing by the initial compliance date. **(40 CFR Part 63, Subparts A and FFFFF)**

Footnotes:

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

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

**FGANNEALFURNACES
FLEX GROUP CONDITIONS**

DESCRIPTION

52 annealing furnaces (composed of 34 hydrogen nitrogen annealing furnaces and 18 hydrogen annealing furnaces) located in the Cold Mill Building.

Flexible Group ID: FGANNEALFURNACES

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	6-minute average	FGANNEALFURNACES	SC VI.2	R 336.1301(1)(c)
2. PM	10 lb/MMscf ²	Test Protocol*	FGANNEALFURNACES	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM10	10 lb/MMscf ²	Test Protocol*	FGANNEALFURNACES	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. PM2.5	10 lb/MMscf ²	Test Protocol*	FGANNEALFURNACES	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. NOx	140 lb/MMscf ²	Test Protocol*	FGANNEALFURNACES	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

- Oil shall not be used as fuel in the FGANNEALFURNACES.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall monitor and record, in a satisfactory manner, the total natural gas usage, for the FGANNEALFURNACES on a monthly, and 12-month rolling time period basis. The permittee shall document that no oil was used as fuel. The permittee shall keep all records on file at the facility and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)**
3. Using the method shown in Appendix 7.1-1, the permittee shall calculate monthly and 12-month rolling time period PM, PM10, PM2.5, and NOx emissions from FGANNEALFURNACES. The permittee shall keep the records on file at the facility and make them available to the department on request. **(R 336.1213(3))**

See Appendix 7-1

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 8-1

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

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

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

**FGHSMFURNACES123
FLEX GROUP CONDITIONS**

DESCRIPTION

Three Slab reheat furnaces Nos. 1, 2 and 3 located in the Hot Strip Mill Building.

Emission Units: EUREHEATFURN1, EUREHEATFURN2, EUREHEATFURN3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	6-minute average	FGHSMFURNACES123	SC VI.3	R 336.1301(1)(c)
2. PM	10 lb/MMscf ²	Test Protocol*	FGHSMFURNACES123	GC 13 SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4)
3. PM10	10 lb/MMscf ²	Test Protocol*	FGHSMFURNACES123	GC 13 SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. PM2.5	10 lb/MMscf ²	Test Protocol*	FGHSMFURNACES123	GC 13 SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
5. NOx	0.11 lb/MMBtu ²	Test Protocol*	FGHSMFURNACES123	SC V.1	R 336.1205(1)(a) & (b) R 336.1801 R 336.2801(ee) R 336.2802(4)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

- Oil shall not be used as fuel in the FGHSMFURNACES123.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)
- The permittee shall use and implement the procedures outlined in the Furnace Light Up (ignition) and Furnace Warm Up procedures for the reheat furnaces to ensure proper air and fuel mixing. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NOx emission rates from a representative reheat furnace from FGHSMFURNACES123 by testing at owner's expense, in accordance with department requirements once every ROP renewal period. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan 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.² **(R 336.1205(1)(a) & (b), R 336.1801, R 336.2001, R 336.2003, R 336.2004, R 336.2801(ee), R 336.2803, R 336.2804)**

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall monitor and record, in a satisfactory manner, the total natural gas usage for the FGHSMFURNACES123 on a monthly, and 12-month rolling time period basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804, R 336.2810)**
3. The permittee shall perform a Method 9 certified visible emission observation of the slab reheat furnaces 1, 2 & 3 respective stacks at least once a month during processing activity. 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))**

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 end of each ozone control period, the permittee shall submit a summary report to the AQD. The summary report shall contain the following information:² **(R 336.1801(12))**
 - a. The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit or utility system.
 - 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 emission unit during the ozone control period.
 - d. For continuous emission monitoring systems, system performance information shall include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information shall be stated in the report.

See Appendix 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHSMREHEAT1-S	168 ²	208 ²	R 336.1225 R 336.2803, R 336.2804
2. SVHSMREHEAT1-N	168 ²	208 ²	R 336.1225 R 336.2803, R 336.2804
3. SVHSMREHEAT2-S	168 ²	208 ²	R 336.1225 R 336.2803, R 336.2804
4. SVHSMREHEAT2-N,	168 ²	208 ²	R 336.1225 R 336.2803, R 336.2804
5. SVHSMREHEAT3-S	168 ²	208 ²	R 336.1225, R 336.2803, R 336.2804
6. SVHSMREHEAT3-N	168 ²	208 ²	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENTS

NA

Footnotes:

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

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

**FGENG2007>500
 FLEX GROUP CONDITIONS**

DESCRIPTION

Two SI engines at a major source greater than 500 horsepower.

Emission Units: EUENGCBFTC, EUENGCBFHS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	3.04 pph ²	Test Protocol*	EUENGCBFTC of FGENG2007>500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
2. NO _x	4.58 pph ²	Test Protocol*	EUENGCBFHS of FGENG2007>500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas, in FGENG2007>500.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FGENG2007>500 for more than 500 hours per year per engine on a 12-month rolling time period basis as determined at the end of each calendar month.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))
2. The permittee shall install, maintain, and operate each engine in FGENG2007>500 according to the manufacturer’s written instructions, or procedures developed by the owner/operator and approved by the engine manufacturer, over the entire life of the engine.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine in FGENG2007>500 with non-resettable hours meters to track the operating hours.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))

2. The nameplate capacity of each engine in FGENG2007>500 shall not exceed the following horsepower, as certified by the equipment manufacturer:² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**
 - a. EUENGCBF²TC – 530 hp
 - b. EUENGCBF²H²S – 800 hp

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)**
2. The permittee shall monitor and record, the hours of operation of each engine in FGENG2007>500, on a monthly and 12- month rolling time period basis, in a manner that is acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the department upon request.² **(R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))**
3. The permittee shall demonstrate compliance with NOx emissions by either providing manufacturer certification that all engines in FGENG2007>500 meet the emission standards in the emission limit table, or through the use of an alternative method approved by the AQD District Supervisor. **(R 336.1213(3))**

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 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGCBF ² TC ¹	5.9 ²	35 ²	R 336.1225, R 336.2803, R 336.2804,

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
2. SVENGCBFHS ¹	9.8 ²	40 ²	R 336.1225, R 336.2803, R 336.2804,
¹ – Stack is capped			

IX. OTHER REQUIREMENTS

- The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, as they apply to FGENG2007>500. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

**FGENG2007<500
FLEX GROUP CONDITIONS**

DESCRIPTION

Four SI engines at a major source less than 500 horsepower and limited use.

Emission Units: EUENGCBFBS, EUENGWSAC, EUENGCBFDM, EUENGCBFGS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	9.91 pph ²	Test Protocol*	EUENGCBFBS of FGENG2007<500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
2. NO _x	9.91 pph ²	Test Protocol*	EUENGWSAC of FGENG2007<500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
3. NO _x	7.70 pph ²	Test Protocol*	EUENGCBFDM of FGENG2007<500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804
4. NO _x	1.64 pph ²	Test Protocol*	EUENGCBFGS of FGENG2007<500	SC VI.3	R 336.1205(1)(a) & (b) R 336.2801(ee) R 336.2802(4) R 336.2803, R 336.2804

*Test Protocol will specify averaging time.

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas, in FGENG2007<500.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate FGENG2007<500 for more than 500 hours per year per engine on a 12-month rolling time period basis as determined at the end of each calendar month.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))
2. The permittee shall install, maintain, and operate each engine in FGENG2007<500 according to the manufacturer’s written instructions, or procedures developed by the owner/operator and approved by the

engine manufacturer, over the entire life of the engine.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine in FGENG2007<500 with non-resettable hours meters to track the operating hours.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))
2. The nameplate capacity of each engine in FGENG2007<500 shall not exceed the following horsepower, as certified by the equipment manufacturer:² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))
 - a. EUENGCBFBS – 250 hp
 - b. EUENGWSAC – 250 hp
 - c. EUENGCBFDM – 145 hp
 - d. EUENGCBFSGS – 95 hp

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/records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(1)(a) & (b), R 336.1225, R 336.2801(ee), R 336.2802(4), R 336.2803, R 336.2804)
2. The permittee shall monitor and record, the hours of operation of each engine in FGENG2007<500, on a monthly and 12-month rolling time period basis, in a manner that is acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the department upon request.² (R 336.1205(1)(a) & (b), R 336.2801(ee), R 336.2802(4))
3. The permittee shall demonstrate compliance with NOx emissions by either providing manufacturer certification that all engines in FGENG2007<500 meet the emission standards in the emission limit table, or through the use of an alternative method approved by the AQD District Supervisor. (R 336.1213(3))

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 8-1

VIII. STACK/VENT RESTRICTIONS

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 Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGCBFBS ¹	5.9 ²	35 ²	R 336.1225, R 336.2803, R 336.2804,
2. SVENGWSAC ²	3.9 ²	16 ²	R 336.1225, R 336.2803, R 336.2804,
3. SVENGCBFDM ¹	16.1 ²	20 ²	R 336.1225, R 336.2803, R 336.2804,
4. SVENGCBFGS ²	5.9 ²	10 ²	R 336.1225, R 336.2803, R 336.2804,
¹ – Stack is capped ² – Stack is horizontal			

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, as they apply to FGENG2007<500. **(40 CFR Part 63, Subparts A and ZZZZ)**
2. The permittee shall comply with all provisions of the New Source Performance Standards, as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, for Spark Ignition Stationary Reciprocating Internal Combustion Engines, as they apply to FGENG2007<500. **(40 CFR Part 60, Subparts A and JJJJ)**

Footnotes:

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

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

FGSCARFBLDG FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Building fugitive emission sources from the operations in the scarfing building.

Emission Units: EUSCARFBLDGHEAT, EUMACHSCARF, EUMANUALSCARF, EUCUTSLICE

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% Opacity ²	6-minute average	FGSCARFBLDG Roof Monitor	SC VI.1	R 336.1301, R 336.2810

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall perform the manual scarfing and cutting/slicing activities only inside the scarfing building.²
(R 336.2810)

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 Method 9 certified visible emission observation of the FGSCARFBLDG roof monitor at least once every calendar week for a minimum of one hour during scarfing and cutting/slicing activities and shall initiate corrective action upon observation of visible emissions in excess of the applicable visible emission limitation. The permittee shall keep, in a satisfactory manner, records of all visible emission readings for FGSCARFBLDG. At a minimum, records shall include the date, time, name of observer/reader, whether the reader is certified, presence of visible emissions, and corrective actions taken if necessary. The permittee shall keep all records on file at the facility and make them available to the department upon request.²
(R 336.1301, R 336.1303, R 336.2810)

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 8-1

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

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

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

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

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: EUCOLDCLEANERS

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FGRULE290 FLEXIBLE GROUP CONDITIONS
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DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.

Emission Units: EUBOFLIMERECEIVI, EUCKEUNLOADEE

POLLUTION CONTROL EQUIPMENT

Baghouse for EUBOFLIMERECEIVI

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 8-1

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 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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

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

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 1-1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2-1. 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 3-1. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EUBFURNACE, EUCFURNACE, and EUBOFSHOP

Monitoring Requirements

3.1-1 SO₂ Monitoring Continuous Emission Rate Monitoring System (CERMS) Requirements for EUBFURNACE

1. Within 30 calendar days after commencement of trial operation, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CERMS.
2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the CERMS to the AQD for approval.
3. Within 180 calendar days after commencement of trial operation, the permittee shall complete the installation and testing of the CERMS.
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
SO ₂	2
CERMS	6

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13, PS 2 and PS 6 of Appendix B to 40 CFR Part 60.
7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CERMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
- a. A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. SO ₂	71.9 pph	Based on a calendar day average	EUBFURNACE baghouse stack
2. SO ₂	38.75 pph	Based on a calendar day average	EUBFURNACE stove stack
3. SO ₂	77.8 pph	Based on a calendar day average	EUBFURNACE (baghouse and stove stacks combined)

- b. A report of all periods of CERMS downtime and corrective action.
- c. A report of the total operating time of each of the EUBFURNACE baghouse and stove during the reporting period.
- d. A report of any periods that the CERMS exceeds the instrument range.
- e. If no exceedances or CERMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

3.2-1 SO₂ Monitoring Continuous Emission Rate Monitoring System (CERMS) Requirements for EUCFURNACE

- 1. For EUCFURNACE, the permittee shall implement and maintain the AQD approved Monitoring Plan. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CERMS.
- 2. For EUCFURNACE, within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table.

Pollutant	Applicable PS
SO ₂	2
CERMS	6

- 3. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

4. The CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13, PS 2 and PS 6 of Appendix B to 40 CFR Part 60.
5. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CERMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).
6. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. SO ₂	179.7 pph	Based on a calendar day average	EUCFURNACE baghouse stack
2. SO ₂	193.6 pph	Based on a calendar day average	EUCFURNACE stove stack
3. SO ₂	271.4 pph	Based on a calendar day average	Total of EUCFURNACE (baghouse and stove stacks combined)

- b. A report of all periods of CERMS downtime and corrective action.
- c. A report of the total operating time of each of the EUCFURNACE baghouse and stove during the reporting period.
- d. A report of any periods that the CERMS exceeds the instrument range.
- e. If no exceedances or CERMS downtime occurred during the reporting period, the permittee shall report that fact.

The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

3.3-1 Continuous Opacity Monitoring System (COMS) Requirements

1. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the COMS complies with the requirements of Performance Specification (PS) 1.
2. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
3. The COMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 1 of Appendix B, 40 CFR Part 60.

4. The permittee shall perform an annual audit of the COMS using the procedures set forth in USEPA Publication 450/4-92-010, "Performance Audits Procedures for Opacity Monitors", or a procedure acceptable to AQD. Within 30 days after the completion of the audit, the results of the annual audit shall be submitted to the AQD.
5. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to Air Quality Division, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above the hourly average limits as specified in the MACT regulations, Section 63.7833(e) and (g). This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of COMS downtime and corrective action.
 - c. A report of the total operating time of the EUBOF during the reporting period.
 - d. If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

Appendix 4-1. Recordkeeping

The permittee shall use the following approved format and procedures for the recordkeeping requirements referenced in SC VI.1 of the Source-Wide Conditions. Alternative formats must be approved by the AQD District Supervisor.

4.1-1 Required Records for Fugitive Dust Sources

- A. Unpaved Roads / Lots
 1. Date of Treatment
 2. Control Measure Used
 3. Responsible Person's Initials
 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 Initials
 4. Road Segment / Lot Identification
- C. Storage Piles / Material Handling
 1. Date of Treatment
 2. Control Measure Used
 3. Responsible Person's Initials
 4. Dilution Ratio
 5. Amount of Dust Suppressant / Water Applied
 6. Identification of Pile / Material Handling Operation Treated
 7. Equipment Used

4.2-1 RULE290 Recordkeeping

The permittee shall use the DEQ Rule 290 Permit to Install Exemption Record form (EQP 3558) or an alternative format as approved by the AQD District Supervisor to document monthly records as required by R 336.1290.

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 5-1. 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 6-1. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-A8640-2016. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-A8640-2016 is being reissued as Source-Wide PTI No. MI-PTI-A8640-2016a

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
182-05C	201600074	Update to emission limits	EUCOALHANDLING EUCOKESCRNBLDGDD EUBFURNACE EUCFURNACE EURELADLINGBOF EUBOFDESLUF EUBOF EULADLEREFINE1 EULADLEREFINE2 FGB&CFURNACES FGBOFSHOP FGANNEALFURNACES FGHSMFURNACES123 FGENG2007>500 FGENG2007<500
20-14	201600074	Machine scarfer	EUMACHSCARF FGSCARFBLDG

Appendix 7-1. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EURELADLINGBOF, EUBOFDESULF, EUBOF, FGB&CFURNACES, FGBOFSHOP

Any changes proposed to this Appendix shall be submitted to the AQD District Supervisor, Detroit Office and approved, in writing, before the change is implemented.

7.1-1 EURELADLINGBOF ROOF MONITOR SC VI.6

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EURELADLINGBOF SC VI.6:

The calculations for equipment controlled by EUBOF secondary baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 0.0038 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 2.17E-3 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EURELADLINGBOF roof monitor emissions =
Monthly Reladling throughput (ton/month) x 1.10E-3 lb PM2.5/ton / 2,000 lb/ton

7.2-1 EUBOFDESULF ROOF MONITOR SC VI.15

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOFDESULF SC VI.15:

The calculations for equipment controlled by EUDESULFURIZATION baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.0763 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.0147 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EUBOFDESULF roof monitor emissions =
Monthly throughput (ton/month) x 0.00858 lb PM2.5/ton / 2,000 lb/ton

7.3-1 EUBOF ESP STACK SC VI.33

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOF SC VI.33:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

NOx

NOx Monthly EUBOF ESP stack emissions =
Monthly steel throughput (ton/month) x 0.08 lb NOx/ton / 2,000 lb/ton

7.4-1 EUBOF ROOF MONITOR SC VI.34

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in EUBOF SC VI.34:

The calculations for equipment controlled by EUBOF baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.0184 lb PM/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.0184 lb PM/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.0120 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.00834 lb PM10/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.00828 lb PM10/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.00559 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly EUBOF roof monitor emissions =
Monthly throughput steel tapping (ton/month) x 0.00687 lb PM2.5/ton / 2,000 lb/ton +
Monthly throughput slag tapping (ton/month) x 0.00681 lb PM2.5/ton / 2,000 lb/ton +
Monthly throughput iron charging (ton/month) x 0.00271 lb PM2.5/ton / 2,000 lb/ton

7.5-1 FGB&CFURNACES BAGHOUSE STACK SC VI.3

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.3:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0456 lb PM/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0416 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0567 lb PM10/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0547 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 0.0567 lb PM2.5/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 0.0547 lb PM2.5/ton / 2,000 lb/ton

NOx

NOx Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly combined casthouse throughput (ton/month) x 0.00588 lb NOx/ton / 2,000 lb/ton +
Monthly natural gas suppression usage combined (MMSCF/month) x 140 lb/MMSCF/2,000 lb/ton

VOC

VOC Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly combined casthouse throughput (ton/month) x 0.0298 lb VOC/ton / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 2.424E-5 lb Pb/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 2.296E-5 lb Pb/ton / 2,000 lb/ton

Mn

Mn Monthly FGB&CFURNACES Baghouse stack emissions =
Monthly B casthouse throughput (ton/month) x 1.333E-4 lb Mn/ton / 2,000 lb/ton +
Monthly C casthouse throughput (ton/month) x 1.258E-4 lb Mn/ton / 2,000 lb/ton

7.6-1 FGB&CFURNACES STOVE STACKS SC VI.5

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.5:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 1.9 lb PM/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 1.28 lb PM/MMSCF / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 7.6 lb PM10/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 3.58 lb PM10/MMSCF / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 7.6 lb PM2.5/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 3.58 lb PM2.5/MMSCF / 2,000 lb/ton

NOx

NOx Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 140 lb NOx/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 13.57 lb NOx/MMSCF / 2,000 lb/ton

CO

CO Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 84 lb CO/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 328.9 lb CO/MMSCF / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 5E-4 lb Pb/MMSCF / 2,000 lb/ton +
0.03557 mg/m³ x BFG usage (MMSCF/month) x 0.002096 lb/MMSCF x 1 ton/2,000 lb

Mn

Mn Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 3.8E-4 lb Mn/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 2.31E-3 lb Mn/MMSCF / 2,000 lb/ton

Hg

Hg Monthly FGB&CFURNACES stove stack emissions =
Monthly combined casthouse natural gas usage (MMSCF/month) x 2.6E-4 lb Hg/MMSCF / 2,000 lb/ton +
Monthly combined casthouse blast furnace gas usage (MMSCF/month) x 5.43E-4 lb Hg/MMSCF / 2,000 lb/ton

7.7-1 FGB&CFURNACES ROOF MONITOR SC VI.4

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGB&CFURNACES SC VI.4:

The calculations for equipment controlled by FGB&CFURNACES baghouse must consider capture efficiency of the baghouse in the calculation to determine the proposed emission factor for the roof monitor.

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

PM

PM Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.0167 lb PM/ton / 2,000 lb/ton

PM10

PM10 Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.009 lb PM10/ton / 2,000 lb/ton

PM2.5

PM2.5 Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 0.00438 lb PM2.5/ton / 2,000 lb/ton

Pb

Pb Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 2.65E-5 lb Pb/ton / 2,000 lb/ton

Mn

Mn Monthly FGB&CFURNACES roof monitor emissions =
Monthly combined casthouse throughput (ton/month) x 1.55E-4 lb Mn/ton / 2,000 lb/ton

7.8-1 FGBOFSHOP SECONDARY BAGHOUSE STACK SC VI. 20

The permittee shall use the following calculations with the emission factors listed or the most recent calculated emission factor based on stack testing and by a calculation method acceptable to the AQD District Supervisor to determine compliance with the recordkeeping requirements referenced in FGBOFSHOP SC VI. 20:

The 12-month rolling average emissions are calculated by summing current monthly emissions plus the previous 11-month emissions.

NOx

NOx Monthly FGBOFSHOP secondary baghouse stack emissions =
Monthly steel production rate (ton/month) x 0.02 lb NOx/ton / 2,000 lb/ton

7.9-1 FGANNEALFURNACES SC VI.3

PM

PM Monthly FGANNEALFURNACES =
Monthly Annealing Furnace Natural Gas Usage (MMSCF/month) x 3.26 lb PM / MMSCF x 1 ton / 2000 lb

PM10

PM10 Monthly FGANNEALFURNACES =
Monthly Annealing Furnace Natural Gas Usage (MMSCF/month) x 3.26 lb PM10 / MMSCF x 1 ton / 2000 lb

PM2.5

PM2.5 Monthly FGANNEALFURNACES =
Monthly Annealing Furnace Natural Gas Usage (MMSCF/month) x 3.26 lb PM2.5 / MMSCF x 1 ton / 2000 lb

NOx

NOx Monthly FGANNEALFURNACES =
Monthly Annealing Furnace Natural Gas Usage (MMSCF/month) x 41.6 lb NOx / MMSCF x 1 ton / 2000 lb

Appendix 8-1. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the MDEQ, AQD, Report Certification form (EQP 5736) and MDEQ, AQD, 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 9-1. Fugitive Dust Control Plan

(AK Steel Dearborn Works - Rouge Area Operations and Particulate Emission Control Program)

A. STORAGE AND ACCESS AREAS

1. Materials such as coke, iron ore, coal, limestone, sand, coke screenings and sump breeze are stored in piles in the field. All piles are active except coke, coal, and limestone. The active piles will be treated with either an asphalt emulsion, petroleum resin, or an acrylic cement, once per month, March through October. Inactive piles will be treated with asphalt emulsion, petroleum resin, or an acrylic cement, once per year. An inactive pile is defined as a pile which is disturbed less than once per month.
2. Normal access areas surrounding storage piles will be treated with asphalt emulsion, petroleum resin, or an acrylic cement, once per month from March through October.
3. When reclaiming of materials is done with a front end loader, the clearance between the bottom of the loader bucket and the vehicle sideboard will be maintained at two feet maximum during loading.
4. When loading coke into trucks or railroad cars at DD building with conveyors, the awaiting vehicle shall be equipped with water sprays to control dust during the loading operation.

B. OPEN AREAS AND UNPAVED ROADS.

1. Open areas will be treated with asphalt emulsion, petroleum resin, or an acrylic cement, once per month between March and October.
2. Unpaved roads will be treated with asphalt emulsion, petroleum resin, or an acrylic cement, once every 12 days between March and October.

C. PAVED AREAS.

1. Wet sweeping

- (i) Roadways receiving wet sweeper treatments on a daily schedule, 5 days a week between March and October, are listed in figure 2 attached to the consent order.
- (ii) The traveled portion of parking areas will receive wet sweep treatments once per month. A greater frequency rate will be implemented on these areas if warranted due to extended dry weather. The non-traveled portion of parking lots will be swept and cleaned a minimum of three times per year.
- (iii) Materials and debris picked up during wet sweep activities will be transported and deposited in a designated holding site by the sweeper equipment operator. Sweeping debris material piles will be monitored on a daily basis and control measures implemented to further reduce fugitive dust emission potential.

2. Street flushing

All paved roadways in the Rouge facility will receive flusher treatments on a daily schedule, five days a week between March and October of the year when outside temperatures are above freezing. Roadway assignments and respective application frequencies are shown in figure 2 attached to the consent order. Daily flusher treatments are assigned to roadways.

3. Schedule change

Roadway treatment application schedules presented in this plan may be modified on a short term basis in response to adverse meteorological conditions or unusual circumstances. Daily treatment procedures will be foregone when:

- Daily precipitation exceeds 0.1 in.
- Freezing is a concern.
- Road salt is applied and for 48 hours thereafter.

4. Additional measures

- (i) To control dust during scheduled raw material handling, a flusher vehicle will sprinkle the truck hauling route.
- (ii) Speed signs have been posted on major paved roadways throughout the facility to maintain lower vehicular speeds. Maximum posted limit is 20 mph.

D. DUST SUPPRESSANT

The suppressant used will be an acrylic cement, petroleum resin, or an asphalt emulsion. It is diluted with water in a ratio of not more than 9:1 and applied at a rate of 0.3 gallons of solution per square yard of surface area covered throughout the plant (all sources). **(Act 451 Section 324.5524, Consent Order SIP 30-1993)**

E. The permittee may change its operations and processes that are sources of particulate and fugitive dust and may also change the provisions under Appendix 01.9, Paragraph A – D of this permit provided all of the following conditions are met:

- a. The provisions of the control program continue to apply to the subject operation or process;
- b. The change does not result in an increase in the level of fugitive dust or particulate emissions;
- c. The operation or process change is approved by MDEQ;
- d. The permittee submits a written description of the proposed operation or process change and how it meets the requirements of conditions a. and b above. **(Consent Order SIP 30-1993, Paragraph 13(A))**

F. The permittee may revise the fugitive dust control program and/or the particulate emission control program provided all of the following conditions are met:

- a. The permittee demonstrates, in writing, that the proposed revision does not result in an increase in the level of fugitive dust or particulate emissions and submits the demonstration to MDEQ for approval.
- b. The revision is approved by MDEQ. **(Consent Order SIP 30-1993, Paragraph 13(B))**

SECTION 2 – EDW. C. LEVY COMPANY

A. 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).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. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, “Except as provided in subrules 2, 3, and 4 of this rule, 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 the following:”² **(R 336.1301(1))**
 - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.

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.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(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).² **(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))**
 - 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))**:
- 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.
 - 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.² **(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))**
- The applicable requirements are included and are specifically identified in the ROP.
 - 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:
- 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))**
 - 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))**
 - 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(10))**
- 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(8))**

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 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 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 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.² **(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.² **(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.² **(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 of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, 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.² **(R 336.1201(4))**

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

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

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to Section 2 of the 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.

SOURCE-WIDE CONDITIONS

DESCRIPTION

Requirements applicable to blast furnace pit area and blast furnace alley area

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% ²	3-minute average	Fugitive dust emissions from sources other than roads, lots, or storage piles	Method 9D, SC VI.2	Act 451 Section 324.5524(2)
2. Visible emissions	5 opacity % ²	3-minute average*	Fugitive dust emissions from any road, lot or storage pile, including any material handling activity at a storage pile.	Method 9D, SC VI.2	Act 451 Section 324.5524(2)
*This shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

A. PROCESS CONTROL MEASURES

1. To minimize the fugitive emissions from the loading of trucks and the transporting of material off-site, the following operating practices shall be adhered to:
 - a. All trucks transporting finished product with the potential to emit fugitive particulates shall be tarped before leaving the property.
 - b. Drop heights of the front end loader bucket will be no more than two (2) feet above sideboard of the trucks.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.A)
2. Control of emissions due to vehicle movement about the stockpiles shall be accomplished by applying lignosulfonate or an equivalent or more effective material to the traveled areas among the piles. When lignosulfonate is used, the application rate of 5 gal/100 sq. ft. shall be used, the diluted ratio shall be 3:1, and the application frequency shall be once per month. The actual square footage to be controlled shall be dependent upon the amount of material in storage.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.A)

3. Spilled material under conveyors shall be attended to on an ongoing basis. Spillage on roadways shall be removed daily. A truck operator who has spilled material onto the road shall be notified so that appropriate action can be taken to prevent future incidences.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.A)

B. STOCKPILE AREAS and ACTIVITIES.

1. Raw slag shall be watered prior to transfer by front end loader to the grizzly/feeder at the beginning of the process plant. Water is added to the material at a rate of 4.0 gallons per ton of slag processed.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.B)
2. Load-out emissions shall be controlled by limiting drop height of the bucket to a maximum of two (2) feet above the sideboard of the truck.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.B)

C. ROADWAYS AND PARKING LOTS

1. Paved Roads
 - a. Paved roads shall be cleaned as necessary, during operating hours, weather permitting, with a power flush or wet/vacuum truck.
 - b. Track-out shall be cleaned up daily when it occurs.
 - c. Speed limit on paved roads is 15 MPH.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.C)
2. Unpaved Roads
 - a. Unpaved roads shall be treated with a lignosulfonate (or equivalent) dust suppressant. If lignosulfate is used, the application rate shall be no less than 0.45 gallons of solution per square yard with dilution ratio of 3:1.
 - b. Speed limit on unpaved roads is 5 MPH.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.C)

D. PROCESS EMISSIONS (Crushing, Screening, Conveying, and Transfer)

1. Crushing / Screening operations shall be equipped with water sprays for fugitive dust control. Materials shall be wetted with water sprays prior to entering the crushing/screening operations.
2. Conveying and transferring for those conveyors and transfer points covered under Exhibit A shall be equipped with covered conveyors, water sprays, side shields, or scope for fugitive dust control as described under 3.A and D..
3. Load-out emission shall be controlled by limited drop height to a maximum of two (2) feet above the sideboard of the truck. All trucks transporting finished products with the potential to emit fugitive particulate shall be tarped.
(Consent Order SIP 18-1993 (Revised 9/9/94), Exhibit A, Section 3.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))**

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 record the data and information specified in Appendix 4.1-2. Required Records for Fugitive Dust Sources and shall keep the record for a period of at least two years, and shall be made available to AQD upon written or verbal request. The permittee may use alternate formats with the approval by the AQD District Supervisor for recording equivalent information without the need to modify or amend this permit **(Consent Order SIP 18-1993, (Revised 9/9/94), Exhibit A, Addendum), R 336.1213(3)**
2. The permittee shall perform a non-certified visible emission observation of the fugitive dust sources at least 5 days per week, excluding non-operating days during March through October. The permittee shall perform a certified visible emission observation of a representative set of the fugitive dust sources mentioned in Appendix 4-2 of this permit at least once per month during March through October. The representative set must include a paved road, an unpaved road, and a storage pile. A different set of fugitive dust sources must be observed each month. 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))**
3. The permittee shall implement and maintain the Hydrogen Sulfide Monitoring Protocol for Rule 406 submitted and approved by AQD on April 1, 2011 or any subsequent amendment to the protocol. Amendments to the protocol must be approved by the AQD District Supervisor. If, at any time, the AQD determines that the protocol is inadequate, the permittee shall amend the protocol within 45 days upon request from the AQD District Supervisor.² **(R 336.1406(2), R 336.1213(3))**

See Appendix 4-2

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 May 15 for reporting period July 1 to December 31 and November 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 May 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Quarterly report shall be submitted by the permittee to AQD identifying each day in which emission limit, operational requirement, or recording requirement, as specified in SIP No. 18-1993 (Revised 9/9/94) Exhibit A (Fugitive Dust Control Plan), were not met. This report shall, for each instance, explain the reason that the emission limit, operational requirement, or record keeping 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. **(Consent Order SIP 18-1993 (Revised 9/9/94), Paragraph 11)**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified 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 the conditions as the date upon which the Termination Order is signed by the Chief of the Air Quality Division or by an authorized U.S Environmental Protection Agency representative. **(R 336.1213(3))**
2. The conditions contained in this ROP for which a Consent Judgment or Consent Decree is the only identified applicable requirement shall be considered null and void upon the effective date of termination of the Consent Judgment or Decree. The effective date of termination is defined for the purposes of the conditions as the date upon which a Stipulation and Order for Termination is signed by a Circuit Court Judge or by a United States District Court Judge or Magistrate Justice. **(R 336.1213(3))**
3. Each responsible official shall certify annually the compliance status of the stationary source with all stationary source-wide conditions. This certification shall be included as part of the annual certification of compliance as required in the General Conditions in Part A and Rule 213(4)(c). **(R 336.1213(4)(c))**
4. When the odor of hydrogen sulfide is found to exist beyond the property line of AK Steel Dearborn Works the 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.² **(R 336.1406(2))**

Footnotes:

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

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

C. 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
EUBLSTFCESLAGPIT	Edw. C. Levy Co. dumps pots containing blast furnace slag collected from the Blast furnaces. Dumped slag is quenched with water sprays containing potassium permanganate, or an equivalent agent, to control odor. After thorough quenching, Edw. C. Levy Co. loads the material into trucks for processing off - site.	1/31/91	NA
EURUNWAYSAGWTR	BOF runway slag watering station is located adjacent to the desulfurization slag watering station. Levy digs the runway slag with a front-end loader and the slag is put into a truck or temporary storage pile for future loading into a truck. The runway slag is transported to the watering station for dust control. After watering, the material is further processed.	5/09/97	NA

**EUBLSTFCESLAGPIT
EMISSION UNIT CONDITIONS**

DESCRIPTION

Edw. C. Levy Co. dumps pots containing blast furnace slag collected from the Blast furnaces. Dumped slag is quenched with water sprays containing potassium permanganate, or an equivalent agent, to control odor. After thorough quenching, Edw. C. Levy Co. loads the material into trucks for processing off-site.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Water sprays

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	20% opacity ²	3 minute average	Fugitive dust emissions from sources other than roads, lots, or storage piles associated with EUBLSTFCESLAGPIT	SC VI.1, VI. 2	Act 451 of 1994, Part 55, Section 5524(2)
2. Visible Emissions	5% opacity ²	3 minute average*	Fugitive dust emissions from any road, lot or storage pile, including any material handling activity at a storage pile associated with EUBLSTFCESLAGPIT	SC VI.1, VI.2	Act 451 of 1994, Part 55, Section 5524(2)

*This shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall quench the dumped slag by water sprays before digging. **(Consent Order SIP 18-1993, (Revised 9/9/94), Exhibit A, Section 3.A)**
2. The permittee shall reduce hydrogen sulfide emissions generated at the blast furnace slag pits servicing AK Steel Dearborn Works Blast Furnaces B and C by installing and properly maintaining the potassium permanganate or equivalent agent quenching system.² **(R 336.1910, 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))**

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 perform a Method 9D certified visible emission observation of a representative slag dumping or digging operation at least once every two weeks for a minimum of 15 minutes during dumping or digging 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))**
2. The permittee shall conduct periodic inspections for the purpose of determining the operational condition of the water spray systems on slag pits dumping area, and if necessary, the reasons for malfunction or failure. These inspections shall be conducted during scheduled outages or downtimes, and immediately 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. **(R 336.1213(3))**

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 deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by May 15 for reporting period July 1 to December 31 and November 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 May 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

<p>EURUNWAYS LAGWTR EMISSION UNIT CONDITIONS</p>

DESCRIPTION

BOF runway slag watering station is located adjacent to the desulfurization slag watering station. Levy digs the runway slag with a front-end loader and the slag is put into a truck or temporary storage pile for future loading into a truck. The runway slag is transported to the watering station for dust control. After watering, the material is further processed.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Water sprays

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Visible Emissions	20% opacity ²	3 minute average	Fugitive dust emissions from sources other than roads, lots, or storage piles associated with EURUNWAYS LAGWTR	SC VI.1, VI.2	Act 451 of 1994, Part 55, Section 5524(2)
2. Visible Emissions	5% opacity ²	3 minute average*	Fugitive dust emissions from any road, lot or storage pile, including any material handling activity at a storage pile associated with EURUNWAYS LAGWTR	SC VI.1, VI.2	Act 451 of 1994, Part 55, Section 5524(2)
* This shall not apply to storage pile material handling activities when wind speeds are in excess of 25 miles per hour					

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall adhere to the fugitive dust control plan for slag handling. (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

VI. MONITORING/RECORDKEEPING

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

1. A Method 9D certified visible emission observation of loading runway slag into trucks shall be performed at least once every two weeks for a minimum of 15 minutes or other frequency as specified in the approved fugitive dust control plan. If this activity takes place inside a building, the observation shall be performed on building egress points while loading the runway slag into the trucks. Corrective action shall be initiated upon observation of visible emissions in excess of the applicable visible emission limitation and a written record shall be maintained for each required observation and corrective action taken. **(R336.1213(3))**
2. The permittee shall inspect, at least once each month, to determine the operational condition of all emission control equipment employed (e.g. the water atomizing equipment, water sprays). A written record of the inspections shall be maintained and shall include any failure of the emission control equipment, the reasons for the failure, and the corrective action taken. **(R336.1213(3))**

VI. 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 May 15 for reporting period July 1 to December 31 and November 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 May 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

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 ID	Flexible Group Description	Associated Emission Unit IDs
FGDESULWATER-STN	A desulfurization slag pot water station, slag dump station, one natural gas fired re-heater station, and a slag screening operation. The water station consists of 10 water spray stations. The re-heater station utilizes a natural gas flame torch.	NA

**FGDESULFWTR-STN
FLEX GROUP CONDITIONS**

DESCRIPTION

A desulfurization slag pot water station, slag dump station, a grizzly screen, and one natural gas fired re-heater station. The water station consists of 10 water spray stations. The re-heater station utilizes a 1 MMBtu/hr natural gas flame torch.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Water sprays

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Visible Emissions	20% opacity ²	3 minute average	Fugitive dust emissions from sources other than roads, lots, or storage piles associated with FGDESULFWTR-STN	SC VI.1, VI.2, VI.4	Act 451 of 1994, Part 55, Section 5524(2)
2. Visible Emissions	5% opacity ²	3 minute average *	Fugitive dust emissions from any road, lot or storage pile, including any material handling activity at a storage pile associated with FGDESULFWTR-STN	SC VI.1, VI.2, VI.4	Act 451 of 1994, Part 55, Section 5524(2)

* Pursuant to Rule 324.5524(2), the 5% opacity limit for storage pile material handling activities does not apply when wind speeds are in excess of 25 miles per hour.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

- The permittee shall not use untreated wastewater or process water without prior written approval of the Air Quality Division for FGDESULFWTR-STN¹. **(R 336.1224, R 336.1225)**
- The permittee shall not operate FGDESULFWTR-STN unless the water spray system is maintained and operated in a satisfactory manner. Satisfactory operation of FG-DESULFWTR-STN is defined as maintaining the visible emissions limit from the desulfurization pot dumping area.² **(R 336.1301, R 336.1910)**
- The permittee shall not operate FGDESULFWTR-STN unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the water spray system and odor control system is implemented and maintained. The MAP shall be submitted within 30 days of permit issuance and must be approved by AQD prior to start-up of FGDESULFWTR-STN. 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.² **(R 336.1911)**

4. The permittee shall only utilize natural gas in the re-heater portion of FGDESULFWTR-STN.² **(R 336.1205(3))**
5. The permittee shall water the desulfurization slag in the pots at the desulfurization slag pot watering station for at least twenty-four (24) hours before the desulfurization slag pot is dumped at the desulfurization slag pot dump station for processing.² **(R 336.1910)**
6. The permittee shall not operate FGDESULFWTR-STN unless the odor control system (the use of potassium permanganate (or equivalent) in the water spray system) is maintained and operated in a satisfactory manner.² **(R 336.1910)**

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 visible emission observations of the desulfurization slag dump station at least once every two weeks while FGDESULFWTR-STN is operating using Test Method 9d. A certified reader shall perform each reading. If excessive visible emissions are observed, the permittee shall determine the cause of the excessive visible emissions and implement corrective measures to eliminate the excessive visible emissions.² **(R 336.1301, Act 451 of 1994, Part 55, Section 5524(2), R 336.1303, R 336.1910)**
2. The permittee shall maintain records of visible emission reading results and corrective actions implemented to eliminate any identified excessive visible emissions.² **(R 336.1912)**
3. The permittee shall maintain the following records on a daily basis whenever FGDESULFWTR-STN is being used: **(R 336.1912)**
 - a. The total amount of water used in FGDESULFWTR-STN.
 - b. The total number of slag pots dumped at the desulfurization slag dump station within the calendar day.

- c. When watering begins for each slag pot.
 - d. When watering ends for each slag pot.
 - e. Records to demonstrate that the MAP is being implemented²
4. The permittee shall maintain records, in a satisfactory manner, to demonstrate that each desulfurization slag pot was watered at the watering station for a minimum of twenty-four (24) hours before it was dumped at the desulfurization slag pot dump station for processing.² **(R 336.1910)**

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 8-2

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

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

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

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 1-2. 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 ₂ 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 ₂	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 2-2. 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 3-2. 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 4-2. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in the Conditions for the requirements applicable to blast furnace pit area and blast furnace alley area for Section 2 of this ROP. Alternative formats must be approved by the AQD District Supervisor.

4.1-2 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

Appendix 5-2. 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 6-2. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-A8640-2016. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-A8640-2016 is being reissued as Source-Wide PTI No. MI-PTI-A8640-2016a

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
70-13	201600073	Desulfurization slag pot watering	FGDESULFWTR-STN

Appendix 7-2. Emission Calculations

There are no specific emission calculations to be used for this ROP. Therefore, this appendix is not applicable.

Appendix 8-2. 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.