### MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

EFFECTIVE DATE: December 1, 2016

**ISSUED TO** 

### Gerdau Macsteel Monroe Mill and Tube City IMS

State Registration Number (SRN): B7061

LOCATED AT

3000 East Front Street, Monroe, Michigan 48161

#### RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B7061-2016

Expiration Date: December 1, 2021

Administratively Complete ROP Renewal Application Due Between June 1, 2020 and June 1, 2021

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-B7061-2016

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

Scott Miller, Jackson District Supervisor

PTI No: MI-PTI-B7061-2016

#### **TABLE OF CONTENTS**

AUTHORITY AND ENFORCEABILITY	4
SECTION 1 – Gerdau Macsteel Monroe Mill	5
A. GENERAL CONDITIONS	6
Permit Enforceability General Provisions Equipment & Design Emission Limits Testing/Sampling Monitoring/Recordkeeping Certification & Reporting Permit Shield Revisions Reopenings Renewals Stratospheric Ozone Protection Risk Management Plan Emission Trading	6 7 7 8 8 10 10 11 11 11
Permit To Install (PTI)	
B. SOURCE-WIDE CONDITIONS	
C. EMISSION UNIT CONDITIONS	
EMISSION UNIT SUMMARY TABLE  EUEAF  EUDUST-SILO  EUROADS&PKG-01  EUFLINN  EULMF  EUVTD  EUCASTER  EUCASTERCOOLTWR  EUBILLETREHEAT-WB  EUGASTANK	17 22 24 26 30 32 35 37
D. FLEXIBLE GROUP CONDITIONS	
FLEXIBLE GROUP SUMMARY TABLE FGENGINES FGMELTSHOP FGBLDGFUG FGGHG FGMACT-YYYYY FGNSPS-SI-ICE FGMACT-ZZZZ-EMERGENCY RICE FGRULE290 FGCOLDCLEANERS	45 53 55 58 61 64
E. NON-APPLICABLE REQUIREMENTS	
APPENDICES-	74

# ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

Appendix 1-1. Abbreviations and Acronyms	. 74
Appendix 2-1. Schedule of Compliance	
Appendix 3-1. Monitoring Requirements	
Appendix 4-1. Recordkeeping	
Appendix 5-1. Testing Procedures	
Appendix 6-1. Permits to Install	
Appendix 7-1. Emission Calculations	
Appendix 8-1. Reporting	. 70 77
Appendix 9-1. Continuous Emission Monitoring Systems	. 77 . 79
SECTION 2 – Tube City IMS	. 80
A. GENERAL CONDITIONS	. 81
Permit Enforceability	. 81
General Provisions.	
Equipment & Design	. 82
Emission Limits	
Testing/Sampling	
Monitoring/Recordkeeping	
Certification & Reporting	
Permit Shield	
Revisions	
Renewals	
Stratospheric Ozone Protection	
Risk Management Plan	
Emission Trading	
Permit To Install (PTI)	
C. EMISSION UNIT CONDITIONS	. 89
EMISSION UNIT SUMMARY TABLE	. 89
D. FLEXIBLE GROUP CONDITIONS	. 90
FLEXIBLE GROUP SUMMARY TABLE	90
FGPLANT PROC	
E. NON-APPLICABLE REQUIREMENTS	. 93
APPENDICES	. 94
Appendix 1-2. Abbreviations and Acronyms	. 94
Appendix 2-2. Schedule of Compliance	
Appendix 3-2. Monitoring Requirements	
Appendix 4-2. Recordkeeping	
Appendix 5-2. Testing Procedures	
Appendix 6-2. Permits to Install	
Appendix 7-2. Emission Calculations	. 96 96
	-71

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

#### **AUTHORITY AND ENFORCEABILITY**

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

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

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

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

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

PTI No: MI-PTI-B7061-2016

#### **SECTION 1 – Gerdau Macsteel Monroe Mill**

PTI No: MI-PTI-B7061-2016

#### 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.,

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

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).<sup>2</sup> (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:" (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 percent 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. (R 336.1901(a))
  - b. Unreasonable interference with the comfortable enjoyment of life and property. (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).<sup>2</sup> (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))

PTI No: MI-PTI-B7061-2016

#### 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.

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

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.<sup>2</sup> (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))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

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))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

#### 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):
  - a. June 21, 1999,
  - b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
  - c. 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))

PTI No: MI-PTI-B7061-2016

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

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.<sup>2</sup> (R 336.1201(1))

- 44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.<sup>2</sup> (R 336.1201(8), Section 5510 of Act 451)
- 45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.<sup>2</sup> (R 336.1219)
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months 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.<sup>2</sup> (R 336.1201(4))

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

#### **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.

PTI No: MI-PTI-B7061-2016

#### 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
EUPAINTING	Spray painting of the ends of the steel bars using white latex paint.	10/01/1980	FGRULE290
EUPARTSWASHER	Parts washers, each with an air/vapor interface area of 10 square feet or less.	05/05/1978	FGCOLDCLEANERS
EUTURNER	Spray painting of steel bars with rust preventative coating. Emissions from this operation are discharged into the in-plant environment.	05/01/2006	FGRULE290
EUMILLSAWBH	Baghouse control for the Roll Mill Cutting saws.	01/01/2015	FGRULE290
EUENGINES	One or more diesel fuel-fired reciprocating engine generators, including portable units, each with a maximum nameplate capacity of 5 megawatts (MW), used for power generation including emergency back-up and/or peak power shaving.	NA	FGENGINES
EUEAF	The electric arc furnace (EAF) melts steel scrap in a batch operation. The EAF is a refractory lined cylindrical vessel with a bowl-shaped hearth and dome shaped roof. Electrodes are lowered and raised through the furnace roof for melting the steel scrap. Six oxy-fuel burners are used to increase the steel melting rate. The molten steel is gravity fed from the EAF to the ladle used in the LMF by tapping at the bottom of the unit. The EAF is controlled by DEC followed by a baghouse. The exhaust gases are cooled using a water quench system prior to baghouse control.	05/05/1978/ 01/04/2013/ 10/27/2014	FGMELTSHOP FGMACTYYYYY FGGHG
EUDUST-SILO	This silo stores dust generated from DVBAGHOUSE-01 until it is properly disposed.	05/05/1978	FGGHG

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control	Installation Date/	Flexible Group ID
	Device(s))	Modification Date	
EUROADS&PKG-01	Facility Roadways, Parking area, Material Storage areas, Stockpile areas, Gerdau Monroe slag transferring and hauling operations, and material handling operations.	05/05/1978	FGGHG
EUFLINN	25 MMBTU/HR natural gas heat treat furnace.	02/01/2006	FGGHG
EULMF	The LMF is a complete ladle metallurgy system which includes arc reheating, alloy additions, powder injections and stirring. Emissions from EULMF are directed to DVLMFBAGHOUSE via removable covers or decks, which are located over the ladle while the process is operating.	01/04/2013/ 10/02/2015	FGMELTSHOP FGBLDGFUG FGGHG
EUVTD	Two vacuum tank degassers which remove entrained gases from the molten metal. This emission unit does not include reheating. Controlled by the existing EAF baghouse. Emissions are directed to the DVBAGHOUSE-01 via removable covers or decks, which are located over the ladle while the process is operating.	01/04/2013/ 10/27/2014	FGMELTSHOP FGBLDGFUG FGGHG
EUCASTER	Molten steel produced by the electric arc furnace is delivered to the continuous caster in a ladle via the ladle metallurgy system and twin tank vacuum degasser. The molten steel is gravity fed from the bottom of the ladle to the tundish enclosure. From the tundish, the molten steel flows into the enclosed caster strands. The semimolten steel is then cut into billets by oxy-fuel cutting torches. The four cutting torches have a combined rated capacity of 4,413 cubic feet of natural gas per hour. EUCASTER also includes a 0.4 MMBtu/hour, natural-gas-fired, internally vented process heater that preheats the submerged entry nozzle (SEN) prior to it being inserted into the caster mold. Molten metal is added after the SEN is in place.	06/01/2013	FGBLDGFUG FGGHG
EUCASTERCOOLTWR	Cooling tower for caster process water.  Maximum water flow rate for cooling tower is 1,630 gallons per minute.	06/01/2013	FGGHG
EUBILLETREHEAT-WB	A walking billet reheat furnace equipped with Ultra-Low Nox Burners with the total heat input capacity of 260.7 MMBtu/hr.	01/04/2013/ 01/27/2015	FGGHG

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUGASTANK	This emission unit is for the existing stationary gasoline dispensing facilities (GDFs) located at an area source of hazardous air pollutants (HAPs) that have a maximum monthly gasoline throughput of one of the following:  1. Less than 10,000 gallons	1997	NA
EUADMINGEN	Emergency generator for administration building (natural gas). 203 HP	2009	FGNSPS SI-ICE
EUFINISHINGGEN	Emergency generator for finishing (diesel). 229 HP.	2005	FGMACT-ZZZZ- EMERGENCY RICE
EUMAINPUMPHOUSEGEN	Emergency generator for main pump house, 200 HP.	Pre-2000	FGMACT-ZZZZ- EMERGENCY RICE

PTI No: MI-PTI-B7061-2016

### EUEAF EMISSION UNIT CONDITIONS

#### DESCRIPTION

The electric arc furnace (EAF) melts steel scrap in a batch operation. The EAF is a refractory lined cylindrical vessel with a bowl-shaped hearth and dome shaped roof. Electrodes are lowered and raised through the furnace roof for melting the steel scrap. Six oxy-fuel burners are used to increase the steel melting rate. The molten steel is gravity fed from the EAF to the ladle used in the LMF by tapping at the bottom of the unit. The EAF is controlled by DEC followed by a baghouse. The exhaust gases are cooled using a water quench system prior to baghouse control.

Flexible Group ID: FGMELTSHOP, FGMACTYYYYY, FGGHG

#### POLLUTION CONTROL EQUIPMENT

DVBAGHOUSE-01, and Direct Evacuation Control (DEC) and CO and VOC reaction chamber.

#### I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	Visible Emissions	3% <sup>2</sup>	6-minute average	EUEAF baghouse stack	SC VI.2	R 336.2810 40 CFR 60.272a(a)(2)
2.	Visible Emissions	6% <sup>2</sup>	6-minute average	EUEAF Shop Building	SC VI.6	40 CFR 60.272a(a)(3)
3.	PM	0.0052 gr/dscf <sup>2</sup>	Test Protocol*	EUEAF	SC V.1	40 CFR 60.272a(a)(1)
*Te	est Protocol spe	cifies averaging	time.			•

<sup>4.</sup> Visible emissions from openings and vents in the upper half of the EUEAF building portion of the facility shall not exceed a six-minute average of 0 percent opacity during operation of the electric arc furnace.<sup>2</sup> (R 336.1301, R 336.2803, R 336.2804, R 336.2810)

#### II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
NA	NA	NA	NA	NA

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

- 1. The permittee shall not melt any radioactive scrap metal in the electric arc furnace.2 (40 CFR 52.21)
- 2. The permittee shall not transfer material to the LMF from the EAF without a ladle cover.<sup>2</sup> (R 336.2810)

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

1. The permittee shall not operate EUEAF unless the CO and VOC reaction chamber, DEC canopy hood, quench system, and baghouse are installed and operating properly.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1362, R 336.1702, R 336.2810)

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

2. The permittee shall not operate EUEAF unless the combustion controls, including real time process optimization (RTPO) and the oxy-fuel burners are installed and operating properly.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1361, R 336.1362, R 336.1702, R 336.2810)

- 3. The permittee shall not operate EUEAF unless the transferring of liquid steel to the LMF ladles is accomplished by tapping the bottom of the unit.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1362, R 336.1702, R 336.2810)
- 3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the visible emissions from the FGMELTSHOP EAF baghouse stack (SVBH-01-Stack) on a continuous basis.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.2802, R 336.2810, 40 CFR 64.6(c)(1)(ii))

#### 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 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.<sup>2</sup> (R 336.1205, R 336.2803, R 336.2804, R 336.2810)
- The permittee shall continuously monitor and record, in a satisfactory manner, the visible emissions from the EAF baghouse stack (SVBH-01-Stack) of FGMELTSHOP. The permittee shall operate the COM system to meet the timelines, requirements and reporting detailed in Appendix 9-1 and shall use the COM data for determining compliance with SC I.1.<sup>2</sup> (R 336.1205, R336.1224, R 336.1225, R336.1301, R 336.1331, R 336.2802, 40 CFR 60.273a(a))
- 3. The permittee shall use the COMS to assure compliance with the PM limit. An excursion for PM shall be 2 consecutive 1-hour block average opacity values greater than 3%. This condition does not affect compliance with R 336.1301.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.272a(a)(2), 40 CFR 64.6(c)(1)(ii))
- 4. Monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subpart AAa. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the AQD upon request.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.274a)
- 5. The permittee shall monitor all incoming material to determine if there are any radioactive materials mixed into the load. Monthly records of any shipments containing radioactive scrap material shall be recorded and kept on file for at least five years.<sup>2</sup> (40 CFR 52.21)
- 6. The permittee shall perform a visible emissions observation for the roofline portion of the shop building containing EUEAF a minimum of once per calendar day during charging. If the permittee observes any visible emissions, the permittee shall perform a Method 9 visible emissions reading. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the shop building exceed 5% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and take prompt corrective action. Records are required only when a Method 9 visible emissions reading is performed. When records are required, the records will include the time that the visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action.<sup>2</sup> (R 336.1301, R 336.1303)

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

7. The permittee shall perform a visible emissions observation for the vents and openings in the upper portion of the shop building containing EUEAF a minimum of once per calendar day while the electric arc furnace is operating. If the permittee observes any visible emissions, the permittee shall perform a Method 9 visible emissions reading. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the shop building exceed 0% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and initiate prompt corrective action. Records are required only when a Method 9 visible emissions reading is performed. When records are required, the records will include the time that the visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action. (R 336.1301, R 336.2804, R 336.2810)

- 8. The permittee shall keep all records required per 40 CFR 60.276a on file at the facility and make available to the AQD District Supervisor upon request.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a)
- 9. The permittee shall maintain records of all shop opacity observations made in accordance with 40 CFR 60.273a(d). All shop opacity observations in excess of 6% shall indicate a period of excess emission, and shall be reported to the administrator semiannually, according to 40 CFR 60.7(c).<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(g))
- 10. The permittee has the option of monitoring the baghouse that controls emissions from EUEAF with either a COMS or a bag leak detection system. If applicable, the permittee shall maintain the following records for each bag leak detection system required under 40 CFR 60.273a(e):
  - a. Records of the bag leak detection system output.2 (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(h)(1))
  - b. Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(h)(2))
  - c. An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(h)(3))
- 11. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). The specific corrective actions for an excursion are outlined in the Malfunction Abatement Plan. (40 CFR 64.7(d))
- 12. 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))
- 13. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. (40 CFR 64.7(b))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

14. 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))

15. The permittee shall verify, annually, that the direction of air flow at each natural draft opening (NDO) is into the non-fugitive enclosure, using a smoke test (i.e., smoke bomb, smoke tube) or an approved alternate method. The permittee shall notify the AQD District Supervisor in writing at least 15 days before the test is scheduled. 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 air flow direction includes the submittal of a complete report of the test results to the AQD District Supervisor within 30 days following the date of the test. After two consecutive tests demonstrate that the direction of air flow at each NDO is into the non-fugitive enclosure, the permittee may submit a request for a change in the testing frequency to the AQD District Supervisor for review and approval.<sup>2</sup> (R 336.1810)

#### VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. Each owner or operator shall submit a written report of exceedances of the control device opacity to the AQD District Supervisor semiannually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(b))
- 5. Operation at a furnace static pressure that exceeds the value established under 40 CFR 60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under 40 CFR 60.274a(c) or operation at flow rates lower than those established under 40 CFR 60.274a(c) may be considered by the AQD District Supervisor to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the AQD District Supervisor semiannually.<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(c))
- 6. The permittee shall conduct the demonstration of compliance with 40 CFR 60.272a(a) and furnish the AQD District Supervisor a written report of the results of the test. This report shall include the information specified in 40 CFR 60.276a(f)(1)-(22).<sup>2</sup> (40 CFR Part 60, Subpart AAa, 40 CFR 60.276a(f))
- 7. Each semiannual report of monitoring and 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))
- 8. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. (40 CFR 64.9(a)(2)(ii))

#### See Appendix 8-1

PTI No: MI-PTI-B7061-2016

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

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBH-01-STACK	136 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804

#### IX. OTHER REQUIREMENT(S)

- 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, "General Provisions" and Subpart YYYYY, "Area Sources: Electric Arc Furnace Steelmaking Facilities". (40 CFR Part 63, Subparts A and YYYYY)
- The permittee shall comply with all applicable provisions of the New Source Performance Standards, as specified in 40 CFR Part 60, Subpart A, "General Provisions" and Subpart AAa, "Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983".<sup>2</sup> (40 CFR Part 60, Subparts A and AAa)
- 3. The permittee shall comply with all applicable requirements of 40 CFR Part 64. (40 CFR Part 64)
- 4. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. (40 CFR 64.7(e))

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## EUDUST-SILO EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

This silo stores dust generated from DVBAGHOUSE-01 until it is properly disposed.

Flexible Group ID: FGGHG

#### **POLLUTION CONTROL EQUIPMENT**

Bin vent fabric filter

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.2 pph <sup>2</sup>	Test protocol*	EUDUST-SILO	SC.V1.1	R 336.1331(1)(c)
2. PM	0.8 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	EUDUST-SILO	SC VI.2	R 336.1331
*Test Protocol w	ill specify avera	aging time			

#### II. MATERIAL LIMIT(S)

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

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

1. The permittee shall not operate EUDUST-SILO unless the silo vent fabric filter is installed and operating properly.<sup>2</sup> (R 336.1910)

#### IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

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 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.<sup>2</sup> (R 336.1225, R 336.1301, R 336.1303, R 336.1702, R 336.2803, R 336.2804, R 336.2810)

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

 The permittee shall keep PM emission calculations on a monthly and 12-month rolling time period basis for EUDUST-SILO. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.2803, R 336.2804, 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 RESTRICTION(S)

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

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

#### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

### EUROADS&PKG-01 EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

Facility Roadways, Parking area, Material Storage areas, Stockpile areas, Gerdau Monroe slag transferring and hauling operations, and material handling operations.

Flexible Group ID: FGGHG

#### **POLLUTION CONTROL EQUIPMENT**

NA

#### I. EMISSION LIMIT(S)

1. Visible emissions from all wheel loaders, all truck traffic, and each of the material storage pipes, operated and maintained in conjunction with EUROADS&PKG-01, shall not exceed five (5) percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). (R 336.1301, R 336.2803, R 336.2804, R 336.2810, Act 451 Section 325.5525(j))

#### II. MATERIAL LIMIT(S)

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

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

- 1. The permittee shall not operate EUROADS&PKG-01 unless an appropriate program for fugitive emissions control has been implemented and is maintained.<sup>2</sup> (R 336.1371, R 336.1372, R 336.2810, Act 451 Section 324.5524)
- 2. The fugitive dust plan must include the following activities for EUROADS&PKG-01, or other activities that will result in equivalent control of fugitive emissions:<sup>2</sup> (R 336.1371, R 336.1372, R 336.2810, Act 451 Section 324.5524)
  - a. Dust suppressant will be applied to unpaved areas at least twice per month, weather permitting.
  - b. The posted maximum vehicle speed within the plant shall not exceed 12 miles per hour.
  - c. Facility Roadways, Parking area, Material Storage areas, Stockpile areas, Gerdau Monroe slag transferring and hauling operations, and material handling operations.
  - d. South Road will be paved.
- 3. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient.<sup>2</sup> (R 336.1371(5))

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

NA

PTI No: MI-PTI-B7061-2016

#### 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), R 336.1372))

1. The permittee shall perform a non-certified visible emissions observation of EUROADS&PKG-01 at least once per day during yard activity, which includes the operation of vehicles on the South Road. The permittee shall initiate appropriate corrective action upon observation of visible emissions and shall keep a written record of each required observation and corrective action taken.<sup>2</sup> (R 336.1301, R 336.1303)

#### 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 vertically upwards to the ambient air unless otherwise noted:

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

#### IX. OTHER REQUIREMENT(S)

 The permittee shall not operate the facility unless an AQD District approved fugitive dust control program is implemented and maintained. This program is designed to limit all fugitive dust emissions from the roadways, the material storage piles, the stock pile areas, and all of the Gerdau Monroe slag transferring and hauling operations throughout the plant.<sup>2</sup> (R 336.1372, R 336.2810)

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## EUFLINN EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

25 MMBTU/HR natural gas heat treat furnace.

Flexible Group ID: FGGHG

#### **POLLUTION CONTROL EQUIPMENT**

NA

#### I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	10.8 Tons <sup>2</sup>	Per 12-month rolling time period determined at the end of each calendar month	EUFLINN	SC VI.1 & 2	R 336.1205

#### II. MATERIAL LIMIT(S)

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

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

1. The permittee shall only burn pipe-line quality natural gas in EUFLINN.<sup>2</sup> (R 336.1205)

#### 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 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.<sup>2</sup> (R 336.1205)

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

2. The permittee shall keep natural gas usage records, acceptable to the AQD District Supervisor, indicating the amount of natural gas used, in cubic feet, on a calendar month basis and a 12-month rolling time period basis. The records must indicate the total amount of natural gas used by the EUFLINN. Based upon these records, the permittee shall calculate the NOx emissions from the EUFLINN. These calculations shall be on a calendar month basis and a 12-month rolling time period basis. In the absence of any actual emissions test data, and unless an alternative emission factor is approved in writing by the AQD District Supervisor, the permittee shall use an emission factor of 100 pounds of NOx emitted per million cubic feet of gas burned. All data, amounts of natural gas burned and calculations shall be kept on file for a period of at least five years and made available to the AQD upon request.<sup>2</sup> (R 336.1205)

#### 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)

1. None of the operations within the EUFLINN shall be directly vented to the outside atmosphere. (R 336.1225)

#### IX. OTHER REQUIREMENT(S)

NA

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

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

PTI No: MI-PTI-B7061-2016

### EULMF EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

The LMF is a complete ladle metallurgy system which includes arc reheating, alloy additions, powder injections and stirring. Emissions from EULMF are directed to DVLMFBAGHOUSE via removable covers or decks, which are located over the ladle while the process is operating.

Flexible Group ID: FGMELTSHOP, FGBLDGFUG, FGGHG

#### **POLLUTION CONTROL EQUIPMENT**

**DVLMFBAGHOUSE** 

#### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
<ol> <li>Visible Emissions</li> </ol>	5% <sup>2</sup>	6-minute average	LMF Baghouse stack	SC VI.1	R 336.2810

#### II. MATERIAL LIMIT(S)

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

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

- 1. The permittee shall not operate EULMF, unless DVLMFBAGHOUSE is installed and operating properly.<sup>2</sup> (R 336.1301, R 336.1331, R 336.1910, R 336.2810)
- 2. The permittee shall not transfer material to EUVTD from EULMF without a ladle cover. (R 336.2810)

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

1. The permittee shall not operate EULMF unless the LMF process vessel roof is in operational position.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1362, R 336.2810)

#### V. TESTING/SAMPLING

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

NA

PTI No: MI-PTI-B7061-2016

#### 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 visible emissions observation for SVBHLMF-STACK a minimum of once per calendar day during operation of the LMF. If the permittee observes any visible emissions, the permittee shall perform a Method 9 visible emissions reading. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the shop building exceed 5% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and take prompt corrective action. Records are required only when a Method 9 visible emissions reading is performed. When records are required, the records will include the time that the visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action.<sup>2</sup> (R 336.1301, R336.1303)

#### 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 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. SVBHLMF-STACK	110 <sup>2</sup>	150 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804

#### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

### EUVTD EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

Two vacuum tank degassers which remove entrained gases from the molten metal. This emission unit does not include reheating. Controlled by the existing EAF baghouse. Emissions are directed to the DVBAGHOUSE-01 via removable covers or decks, which are located over the ladle while the process is operating.

Flexible Group ID: FGMELTSHOP, FGBLDFUG, FGGHG

#### **POLLUTION CONTROL EQUIPMENT**

**DVBAGHOUSE-01** 

#### I. <u>EMISSION LIMIT(S)</u>

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

#### II. MATERIAL LIMIT(S)

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

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

1. The permittee shall not operate the EUVTD unless the process vessel roof is sealed and the baghouse control system is installed and operating properly.<sup>2</sup> (R 336.1301, R 336.1301, R 336.1910, R 336.2810)

#### 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))

NA

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

#### 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 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. SVBH-01-STACK	136 <sup>2</sup>	120 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804

#### IX. OTHER REQUIREMENT(S)

NA

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

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

PTI No: MI-PTI-B7061-2016

### EUCASTER EMISSION UNIT CONDITIONS

#### DESCRIPTION

Molten steel produced by the electric arc furnace is delivered to the continuous caster in a ladle via the ladle metallurgy system and twin tank vacuum degasser. The molten steel is gravity fed from the bottom of the ladle to the tundish enclosure. From the tundish, the molten steel flows into the enclosed caster strands. The semi-molten steel is then cut into billets by oxy-fuel cutting torches. The four cutting torches have a combined rated capacity of 4,413 cubic feet of natural gas per hour. EUCASTER also includes a 0.4 MMBtu/hour, natural-gas-fired, internally vented process heater that preheats the submerged entry nozzle (SEN) prior to it being inserted into the caster mold. Molten metal is added after the SEN is in place.

Flexible Group ID: FGBLDGFUG, FGGHG

#### POLLUTION CONTROL EQUIPMENT

NA

#### I. <u>EMISSION LIMIT(S)</u>

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

#### II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural Gas Usage	36MMSCF/yr <sup>2</sup>	12-month rolling time period determined at the end of each calendar month	EUCASTER	SC VI.3	R 336.2803 R 336.2804 R 336.2810

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

- 1. The cutting torches of EUCASTER shall be equipped with oxy-fuel burners.<sup>2</sup> (R 336.2810)
- 2. The only fuel the permittee may burn in the cutting torches of EUCASTER is oxy-fuel, i.e. pipeline quality natural gas mixed with oxygen.<sup>2</sup> (R 336.2810)
- 3. The permittee shall only burn pipeline quality natural gas in the SEN process heater. (R 336.2810)
- 4. The permittee shall operate EUCASTER using good combustion practices as described in the MAP.<sup>2</sup> (R 336.2810)

PTI No: MI-PTI-B7061-2016

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

- 1. The permittee shall not operate the cutting torches of EUCASTER unless the oxy-fuel burners are installed, maintained and operating properly.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.2810)
- 2. The combined maximum design heat input rate of the cutting torches of EUCASTER shall not exceed 4.5 million British thermal units per hour (MMBtu/hr.) on a fuel heat input basis.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1301, R 336.1702, R 336.1901, R 336.1910)
- 3. The maximum design heat input rate of the SEN process heater shall not exceed 0.4 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis.<sup>2</sup> (R 336.1224, R336.1225, R 336.1301, R 336.1301)
- 4. The permittee shall not operate EUCASTER unless the liquid steel is tapped from the bottom of the ladle to the caster and sealed at the top of the caster.<sup>2</sup> (R 336.2810)
- 5. The permittee shall not operate EUCASTER unless the tundish is enclosed so that fugitive emissions do not occur from ladle tapping operations.<sup>2</sup> (R 336.2810)

#### 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 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.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1301, R 336.1702, R 336.1901, R 336.1910)
- The permittee shall retain design specification documentation of the heat input rating of the cutting torch oxyfuel burners on file and make the information available to the AQD District Supervisor upon request.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702, R 336.1901, R 336.1910)
- The permittee shall monitor and record the natural gas usage on a monthly and 12-month rolling time period basis. The permittee shall keep the records on file and make them available to the AQD District Supervisor upon request.<sup>2</sup> (R 336.2803, R 336.2804, 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

PTI No: MI-PTI-B7061-2016

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

1. Except for the steam generated from the caster cooling system, none of the operations within the EUCASTER shall be directly vented to the outside atmosphere. (R 336.1225)

#### IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

### EUCASTERCOOLTWR EMISSION UNIT CONDITIONS

#### **DESCRIPTION**

Cooling tower for caster process water. Maximum water flow rate for cooling tower is 1,630 gallons per minute.

Flexible Group ID: FGGHG

#### POLLUTION CONTROL EQUIPMENT

Drift eliminator.

#### I. <u>EMISSION LIMIT(S)</u>

Р	ollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements			
1. P	M	0.0005%	Test Protocol*	EUCASTERCOOLTWR	SC VI.1	R 336.1301			
		Drift Loss <sup>2</sup>				R 336.1331			
2. P	M10	0.0005%	Test Protocol*	EUCASTERCOOLTWR	SC VI.1	R 336.1331			
		Drift Loss <sup>2</sup>							
3. P	M2.5	0.0005% Drift	Test Protocol*	EUCASTERCOOLTWR	SC VI.1	R336.1331			
		Loss <sup>2</sup>				R 336.2810			
*Test	Test Protocol specifies averaging time.								

#### II. MATERIAL LIMIT(S)

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

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

NA

#### IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

1. The cooling tower shall not be operated unless the high efficiency drift eliminator is installed and operating properly.<sup>2</sup> (R 336.2810)

#### 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 retain design specification documentation of the drift loss on file and make the information available to the AQD District Supervisor upon request.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1310), R 336.1910, R 336.2810)

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

#### 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:

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

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

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

# EUBILLETREHEAT-WB EMISSION UNIT CONDITIONS

## **DESCRIPTION**

A walking beam billet reheat furnace equipped with Ultra-Low NOx burners with the total heat input capacity of 260.7 MMBtu/hr.

Flexible Group ID: FGGHG

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
Visible     Emissions	5% (or 20% at startup**) <sup>2</sup>	6-minute average	EUBILLETREHEAT-WB	SC VI.4	R 336.1301 R 336.2810
2. CO	84 lb./MMSCF <sup>2</sup>	Test Protocol*	EUBILLETREHEAT-WB	SC V.1	R 336.2804 R 336.2810
3. CO	68.6 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EUBILLETREHEAT-WB	SC VI.2	R 336.2804 R 336.2810
4. NOx	0.07 lb./MMBTU <sup>2</sup>	Test Protocol*	EUBILLETREHEAT-WB	SC V.1	R 336.2803 R 336.2804 R 336.2810
5. NOx	18.3 pph <sup>2</sup>	Test Protocol*	EUBILLETREHEAT-WB	SC V.1	R 336.2803 R 336.2804 R 336.2810
6. NOx	57.9 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EUBILLETREHEAT-WB	SC VI.2	R 336.2803 R 336.2804 R 336.2810
7. VOC	5.5 lb./MMSCF <sup>2</sup>	Test Protocol*	EUBILLETREHEAT-WB	GC 13 SC VI.2	R 336.1702(a)
8. VOC	4.5 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EUBILLETREHEAT-WB	SC VI.2	R 336.1702(a)
9. GHG as CO2e	119 lb./MMBTU <sup>2</sup>	Test Protocol*	EUBILLETREHEAT-WB	GC 13, SC II.1	R 336.2810

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
10. GHG as CO2e	97,907 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	EUBILLETREHEAT-WB	SC VI.2	R 336.2810

<sup>\*</sup>Test Protocol will specify averaging time.

## II. MATERIAL LIMIT(S)

- 1. The permittee shall only burn pipe-line quality natural gas in EUBILLETREHEAT-WB.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2803, R 336.2804, R 336.2810)
- 2. The permittee shall not burn more than 1,633 MMSCF/yr. of natural gas in EUBILLETREHEAT-WB based on a 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2803, R 336.2804, R 336.2810)

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the natural gas usage from EUBILLETREHEAT-WB on a continuous basis.<sup>2</sup> (R 336.1205(1)(a) & (3), R 336.1225, R 336.2803, R 336.2804)
- 2. The permittee shall operate EUBILLETREHEAT-WB using good combustion practices as described in the MAP.<sup>2</sup> (R 336.2810)

## IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall install a device to continuously monitor and record the natural gas usage rate for EUBILLETREHEAT-WB.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2803, R 336.2804, R 336.2810)
- 2. The permittee shall not operate EUBILLETREHEAT-WB unless the Ultra-Low NOx burners are installed and operating properly.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.2810)

#### V. TESTING/SAMPLING

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

1. Once every five (5) years, the permittee shall verify NOx and CO emission rates from EUBILLETREHEAT-WB by testing at owner's expense, in accordance with Department requirements. No less than 60 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 60 days following the last date of the test.2 (R 336.1205, R 336.1299, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)

<sup>\*</sup>Start-up conditions for this emission unit are defined as the time period from when a burner flame is first ignited until the unit reaches production operating conditions.

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

### 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 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.<sup>2</sup> (R 336.1225, R 336.1301, R 336.1303, R 336.1702, R 336.2803, R 336.2804, R 336.2810)

- 2. The permittee shall keep the following information on a monthly basis for EUBILLETREHEAT-WB:
  - a. CO, NOx, VOC, and CO2e mass emission calculations determining the monthly emission rate in tons per calendar month.
  - b. CO, NOx, VOC, and CO2e mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2803, R 336.2804, R 336.2810)

- 3. The permittee shall monitor and record the natural gas usage rate for EUBILLETREHEAT-WB on a monthly and 12-month rolling time period basis as determined at the end of each calendar month.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2803, R 336.2804, R 336.2810)
- 4. The permittee shall perform a visible emissions observation for EUBILLETREHEAT-WB at a minimum of once per calendar day during routine operations. If the permittee observes any visible emissions, the permittee shall immediately implement the following procedures:<sup>2</sup> (R 336.1301, R 336.1303)
  - a. The permittee shall continue to perform the visible emissions readings at least once every 30 minutes until emissions are no longer visible or until emissions have been observed for more than two hours.
  - b. If visible emissions have been observed for more than two hours, a certified reader shall determine the opacity using Federal Reference Test Method 9 (40 CFR Part 60, Appendix A).
  - If the results of the Federal Reference Test Method 9 visible emissions observation indicate a violation of the opacity standard specified in General Condition 11, the permittee shall immediately initiate corrective actions.2
  - d. The permittee shall keep records of all Method 9 readings that were performed.
- 5. The permittee shall keep records for EUBILLETREHEAT-WB that document when it operates in start-up mode or normal operation mode as defined in SC I.1.2 (R 336.1301, 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))

PTI No: MI-PTI-B7061-2016

## 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. SVREHEAT-FRN	96 <sup>2</sup>	185 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804

## IX. OTHER REQUIREMENT(S)

NA

## Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## **EUGASTANK EMISSION UNIT CONDITIONS**

## **DESCRIPTION**

This emission unit includes existing stationary gasoline dispensing facilities (GDFs) located at an area source of hazardous air pollutants (HAPs) that have a maximum monthly gasoline throughput of one of the following:

1. Less than 10,000 gallons

GDF means any stationary source which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine use solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Flexible Group ID: NA

## POLLUTION CONTROL EQUIPMENT

NA

I. <u>EMISSION LIMIT(S)</u>

NA

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. Required measures for a gasoline dispensing facility (GDF) with Monthly Throughput <10,000 gallons:
  - a. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. (40 CFR 63.11116(a))
  - b. The permittee shall minimize gasoline spills. (40 CFR 63.11116(a)(1))
  - c. Spills shall be cleaned up as expeditiously as practicable. (40 CFR 63.11116(a)(2))
  - d. The permittee shall cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. (40 CFR 63.11116(a)(3))
    - i. Portable gasoline containers that meet the requirements of 40 CFR Part 59, Subpart F, are considered acceptable for compliance with paragraph (1)(d) of this section
- 2. The permittee shall provide Gasoline Throughput Records upon request by USEPA or MDEQ: (40 CFR 63.11116(b))
  - a. Facilities are not required to submit notifications or reports, but must have records available.

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

PTI No: MI-PTI-B7061-2016

#### 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 keep a record of gasoline throughput to be able to demonstrate that monthly throughput is less than 10,000 gallons and such record must be made available to USEPA or to MDEQ within 24 hours of a request. (40 CFR 63.11116(b))

### 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. The permittee shall comply with all applicable provisions of the Gasoline Distribution GACT as specified in 40 CFR Part 63, Subpart CCCCCC. (40 CFR Part 63, Subpart CCCCCC)
- 2. If the permittee's affected source's throughput ever exceeds an applicable throughput threshold, then the permittee's affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold. (40 CFR 63.11111(i))

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## 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
FGENGINES	One or more diesel fuel-fired reciprocating engine generators, including portable units, each with a maximum nameplate capacity of 5 megawatts (MW), used for power generation including emergency back-up and/or peak power shaving.	EUENGINES
FGMELTSHOP	The Melt Shop includes the EUEAF, EULMF, and two vacuum tank degasser operations (EUVTD) at the facility.	EUEAF, EULMF, EUVTD
FGBLDGFUG	Processes located in the portion of the shop building that houses the EUCASTER, EULMF, and EUVTD, which vent fugitive emissions indoors that may escape the building through the roof monitor, as well as processes or activities other than EUEAF which are located in the portion of the shop building that houses EUEAF and which vent fugitive emissions that may escape though building vents. A portion of the plant ventilation that is vented through the ladle bay roof monitor is controlled by the LMF baghouse.	EUCASTER, EULMF, EUVTD
FGGHG	The conditions in this table requiring a GHG emission limit, associated recordkeeping and an Energy Efficiency Management Plan apply to the emission units associated with PTI No. 102-12A.	EUEAF, EUDUST-SILO, EUROADS&PKG-01, EUFLINN, EULMF, EUVTD, EUCASTER, EUCASTERCOOLTWR, EUBILLETREHEAT-WB
FGMACTYYYYY	The affected source is an existing electric arc furnace (EAF) steelmaking facility that is part of an area source of hazardous air pollutant (HAP) emissions. The affected source is an EAF steelmaking facility as defined by 40 CFR Part 63, Subpart YYYYY.	EUEAF
FGNSPS-SI-ICE	This table contains requirements of the New Source Performance Standards for Stationary Spark Ignition - Internal Combustion Engines, 40 CFR 60 Subpart JJJJ for spark ignition (SI, i.e. natural gas/propane) emergency generators.	EUADMINGEN

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGMACT-ZZZZ- EMERGENCY RICE	Each existing emergency stationary reciprocating internal combustion engines (RICE) as identified within 40 CFR Part 63, Subpart ZZZZ, 63.6590(a)(1), and is exempt from the requirements of Rule 201 pursuant to Rules 282(b) or 285(g)	EUFINISHINGGEN, EUMAINPUMPHOUSEGEN
FGRULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290.	EUPAINTING EUTURNER EUMILLSAWBH
FGCOLDCLEANERS	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.	EUPARTSWASHER

PTI No: MI-PTI-B7061-2016

## FGENGINES FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

One or more diesel fuel-fired reciprocating engine generators, including portable units, each with a maximum nameplate capacity of 5 megawatts (MW), used for power generation including emergency back-up and/or peak power shaving.

**Emission Unit: EUENGINES** 

## POLLUTION CONTROL EQUIPMENT

NA

## I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	515 lb./1000 gal <sup>2</sup>	Test Method	FGENGINES	SC V.1	R 336.1205(1)(a)

## II. MATERIAL LIMIT(S)

	Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	Diesel Fuel- Sulfur content	0.05 percent by weight <sup>2</sup>	Annual average	FGENGINES	SC VI.3	40 CFR Part 72.7
2.	Diesel Fuel	136,000 gallons <sup>2</sup>	Per 12-month rolling time period	FGENGINES	SC VI. 1 & 4	R 336.1205(1)(a) R 336.1220 R 336.1224 R 336.1225 R 336.1702(a) 40 CFR 52.21(c) & (d)

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall operate FGENGINES in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction.<sup>2</sup> (R 336.1912)
- 2. The permittee shall burn only diesel fuel in FGENGINES. (R 336.1224, R 336.1225)

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The total capacity from each unit included in FGENGINES shall not exceed 5 MW.<sup>2</sup> (40 CFR Part 72.7)

PTI No: MI-PTI-B7061-2016

## V. TESTING/SAMPLING

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

1. Verification of the NOx emission limit (515 pounds NOx per 1000 gallon fuel used) from one or more representative units of FGENGINES, by testing at owner's expense, in accordance with Department requirements may be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of the emission factor includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> (R 336.1205(1)(a), R 336.2001, R 336.2003, R 336.2004)

#### 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 install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel use for FGENGINES on a monthly basis.<sup>2</sup> (R 336.1205(1)(a), R 336.1220, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
- 2. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction, any maintenance performed and any testing results for FGENGINES. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (R 336.1912)
- 3. If any electricity produced by FGENGINES is sold to a utility power distribution system, the permittee shall keep records of the sulfur content calculated in percent by weight, on an annual average as required by SC II.1. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (40 CFR Part 72.7)
- 4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FGENGINES. The records must indicate the total amount of fuel used in FGENGINES. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (R 336.1205(1)(a), R 336.1220, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

## 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)

1. The exhaust gases from FGENGINES shall be discharged unobstructed vertically upwards to the ambient air. (R 336.1225, 40 CFR 52.21(c) & (d))

PTI No: MI-PTI-B7061-2016

## IX. OTHER REQUIREMENT(S)

- 1. The permittee shall not replace or modify FGENGINES, or any portion of FGENGINES, unless all of the following conditions are met:<sup>2</sup> (R 336.1201(a)(1))
  - a. The permittee shall update the general permit by submitting a new Process Information form (EQP5787) to the AQD Permit Section and District Supervisor identifying the existing and new equipment a minimum of 10 days before the equipment is replaced or modified.
  - b. The permittee shall continue to meet all general permit to install applicability criteria after the replacement or modification is complete.
  - c. The permittee shall keep records of the date and description of the replacement or modification.

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

# FGMELTSHOP FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

The Melt Shop includes the EUEAF, EULMF, and EUVTD.

Emission Units: EUEAF, EULMF, EUVTD

## POLLUTION CONTROL EQUIPMENT

DVBAGHOUSE-01 for the EAF and vacuum tank degassers, DEC for the EAF, CO and VOC reaction chamber for the EAF, and DVLMFBAGHOUSE for the LMF.

## I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.0018 gr/dscf <sup>2</sup>	Test Protocol*	FGMELTSHOP Each baghouse individually	SC V.1	R 336.1331
2. PM	7.2 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.1331 R 336.2803 R 336.2804
3. PM	29.2 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.1331 R 336.2803 R 336.2804
4. PM10	10.9 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2803 R 336.2804 R 336.2810
5. PM10	41.3 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2803 R 336.2804 R 336.2810
6. PM2.5	0.1 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2803 R 336.2804 R 336.2810
7. PM2.5	10.9 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.1205 R 336.2803 R 336.2804

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
8. PM2.5	41.3 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.1205 R 336.2803 R 336.2804
9. SO2	0.2 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC IV.1 SC VI.4	R 336.2803 R 336.2804 R 336.2810
10. SO2	26 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC IV.1 SC VI.4	R 336.2803 R 336.2804 R 336.2810
11. SO2	85 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2803 R 336.2804 R 336.2810
12. CO	2 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC IV.1 SC VI.4	R 336.2804 R 336.2810
13. CO	260 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC IV.1 SC VI.4	R 336.2804 R 336.2810
14. CO	850 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2804 R 336.2810
15. NOx	0.2 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2803 R 336.2804 R 336.2810
16. NOx	26 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2803 R 336.2804 R 336.2810
17. NOx	85 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2803 R 336.2804 R 336.2810
18. VOC	0.13 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.1702(a)
19. VOC	16.9 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.1702(a)
20. VOC	55.3 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.1702(a)

PTI No: MI-PTI-B7061-2016

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
21. Lead	0.09 pph <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2802(4)(d)
22. Lead	2.15 lb/day <sup>2</sup>	Calendar Day	FGMELTSHOP	SC VI.4	R 336.2802(4)(d)
23. Lead	0.37 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2802(4)(d)
24. GHG (as CO <sub>2</sub> e)	320 lb/ton liquid steel <sup>2</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.1	R 336.2810
25. GHG (as CO <sub>2</sub> e)	134,396 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC VI.4	R 336.2810
26. Mercury (as Hg)	0.033 pph <sup>1</sup>	Test Protocol*	FGMELTSHOP for both baghouse stacks combined	SC V.2	R 336.1224 R 336.1225
27. Mercury (as Hg)	271 lb/year <sup>1</sup> hall specify avera	12-month rolling time period as determined at the end of each calendar month.	FGMELTSHOP	SC V.2	R 336.1224 R 336.1225

## II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Steel Output	130 tons liquid steel per hour <sup>2</sup>	Based on a 24-hour calendar day average	FGMELTSHOP-	SC VI.4	R 336.2810
2. Steel Output	850,000 tons liquid steel per year <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	FGMELTSHOP	SC VI.4	R 336.2810

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate FGMELTSHOP unless the baghouse control systems, pollution control equipment and canopy hood are installed and operating properly.<sup>2</sup> (R 336.1301, R 336.1331, R 336.1910, R 336.2810)
- 2. The permittee shall not operate each of the emission units in FGMELTSHOP for more than 8,200 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month.<sup>2</sup> (R 336.2803, R 336.2804, R 336.2810)

PTI No: MI-PTI-B7061-2016

## IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the SO2 and CO emissions and exhaust flow rate on a continuous basis, from the FGMELTSHOP (EAF) baghouse stack (SVBH-01-STACK).<sup>2</sup> (R 336.2802, R 336.2810)

#### V. TESTING/SAMPLING

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

- 1. Once every five (5) years, the permittee shall verify visible emissions, PM, PM10, PM2.5, CO, NOx, VOC, SO2, Lead and CO2e emission rates from FGMELTSHOP by testing at owner's expense, in accordance with Department requirements. No less than 60 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 60 days following the last date of the test. As used in these permit conditions, "start-up" means the time when FGMELTSHOP begins processing liquid steel after the facility has the capacity to operate at increased output and "initial trial operating period" means the period of time when FGMELSTSHOP is undergoing "Preproduction Approval Process" certification.<sup>2</sup> (R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810, 40 CFR 60.272a)
- 2. Once every five (5) years, the permittee shall verify the mercury emission rate from FGMELTSHOP by testing at owner's expense, in accordance with Department requirements. After the initial stack test, subsequent testing for mercury shall be conducted at least once every year for five years and once every 5 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 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 60 days following the last date of the test. (R 336.1224, R 336.1225, R 336.1228)

## VI. MONITORING/RECORDKEEPING

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

- 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.<sup>2</sup> (R 336.1205, R 336.1901, R 336.2803, R 336.2804)
- The permittee shall continuously monitor and record, in a satisfactory manner, the SO2 and CO emissions and flow from the EAF baghouse stack (SVBH-01-STACK) of FGMELTSHOP. The permittee shall operate each Continuous Emission Rate Monitoring System (CERMS) to meet the timelines, requirements and reporting detailed in Appendix 9-1 and shall use the CERMS data for determining compliance with SC I.9, I.10, I.11, I.12, I.13, I.14.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1602, R 336.1702, R 336.2802)
- 3. The permittee shall monitor and record the 24-hour calendar day liquid metal production rate for the electric arc furnace and use the data to demonstrate compliance with SC II.1 and II.2 in a format approved by the AQD District Supervisor. The permittee shall keep the records on file and make them available to the AQD District Supervisor upon request.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702, R 336.1910)
- 4. The permittee shall keep the following records on a monthly basis:
  - a. The hourly emission rates of PM, PM10, PM2.5, CO, SO2, NOx, VOC and Lead on a monthly average basis
  - b. The calendar day emission rate of lead on a month average.
  - c. The annual emission rate of PM, PM10, PM2.5, CO, SO2, NOx, VOC and Lead, Mercury and CO2e on a 12-month rolling time period determined at the end of each calendar month.

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

d. The emissions of CO and, SO2 as lb./ton of steel produced on a monthly average basis.

The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>2</sup> (R 336.1205 R 336.2803, R 336.2804, R 336.2810)

5. The permittee shall monitor and record the hours of operation of FGMELTSHOP on a monthly and 12-month rolling time period basis as determined at the end of each calendar month. The permittee shall keep records on file at the facility and make them available to the AQD District Supervisor upon request.<sup>2</sup> (R 336.1225, R 336.2810)

## See Appendix 10-1

## 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))
- 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. SVBH-01-STACK-2	136 <sup>2</sup>	1202	R 336.1225, R 336.2803, R 336.2804
2. SVLMF-STACK-2	110 <sup>2</sup>	150 <sup>2</sup>	R 336.1225, R 336.2803, R 336.2804

## IX. OTHER REQUIREMENT(S)

NA

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## FGBLDGFUG FLEXIBLE GROUP CONDITIONS

#### **DESCRIPTION**

Processes located in the portion of the shop building that houses the EUCASTER, EULMF, and EUVTD, which vent fugitive emissions indoors that may escape the building through the roof monitor, as well as processes or activities other than EUEAF which are located in the portion of the shop building that houses EUEAF and which vent fugitive emissions that may escape through building vents. A portion of the plant ventilation that is vented through the ladle bay roof monitor is controlled by the LMF baghouse.

Emission Units: EUCASTER, EULMF, EUVTD

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. <u>EMISSION LIMIT(S)</u>

Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6% <sup>2</sup>	6-minute average	EUCASTER as measured at the roof monitors of FGBLDGFUG	SC VI.2	R 336.1301 R 336.1365 R 336.2004(1)(I) R 336.2803 R 336.2804 R 336.2810
		Limit Operating Scenario	Limit Operating Scenario  6%2 6-minute average EUCASTER as measured at the roof monitors of	Limit Operating Scenario Equipment Testing Method  6%2 6-minute average EUCASTER as measured at the roof monitors of

## II. MATERIAL LIMIT(S)

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

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall update the fugitive dust plan if it is determined to be insufficient by the AQD District Supervisor. The permittee shall provide an updated fugitive dust plan to the AQD District Supervisor for review and approval within 30 days of notification that the plan is insufficient.<sup>2</sup> (R 336.2810)

## IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

PTI No: MI-PTI-B7061-2016

#### 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 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.<sup>2</sup> (R 336.1205, R 336.1901, R 336.2803)
- 2. The permittee shall perform visible emissions observations for FGBLDGFUG from the two uncontrolled ladle bay roof monitors and vents in the portions of the shop building containing material handling for EUEAF, as well as the portion of the shop building containing EULMF, EUVTD, and EUCASTER, a minimum of once per calendar day. If the permittee observes any visible emissions, the permittee shall perform a Method 9 visible emissions reading. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the shop building exceed 5% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions, and initiate prompt corrective action. Records are required only when a Method 9 visible emissions reading is performed. When the records are required, the records will include the time that the visible emissions were observed, identification on the cause, the corrective action taken, and the time of completion of corrective action.<sup>2</sup> (R 336.1301, R 336.1303)

## 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)

 The permittee shall not operate the facility unless an AQD District approved fugitive dust control program is implemented and maintained. This program is designed to limit all fugitive dust emissions from the material storage piles and containers, and the Gerdau Monroe slag transferring and hauling operations throughout the plant.<sup>2</sup> (R 336.2810)

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## FGGHG FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

The conditions in this table require a GHG emission limit, associated recordkeeping and an Energy Efficiency Management Plan.

Emission Units: EUEAF, EUDUST-SILO, EUROADS&PKG-01, EUFLINN, EULMF, EUVTD, EUCASTER,

EUCASTERCOOLTWR, EUBILLETREHEAT-WB,

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario		Monitoring/ Testing Method	Underlying Applicable Requirements
1. GHG as CO2e	, ,	12-month rolling time period as determined at the end of each calendar month	FGGHG	SC VI.2	R 336.2810

## II. MATERIAL LIMIT(S)

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

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall develop and submit an approvable Energy Efficiency Management Plan (EEMP) to the AQD District Supervisor. Thereinafter, the permittee shall not operate the process equipment covered by FGGHG unless EEMP is implemented and maintained for each of the following emission units EUEAF, EULMF, EUVTD, EUBILLETREHEAT-WB, and EUCASTER. At a minimum, the EEMP shall specify the following:
  - a. Work practices to be followed to ensure optimal energy efficiency in the operation of all equipment necessary to operate the EUEAF, EULMF, EUVTD, EUBILLETREHEAT-WB, and EUCASTER.
  - b. A maintenance plan to be followed to ensure optimal energy efficiency of all equipment necessary to operate the EUEAF, EULMF, EUVTD, EUBILLETREHEAT-WB, and EUCASTER in accordance with manufacturer's recommendations.

The permittee shall amend the EEMP within 180 days if any changes are deemed necessary, or upon request by the AQD District Supervisor. The permittee shall submit the EEMP and any amendments to the AQD District Supervisor for review and approval.<sup>2</sup> (R 336.2810)

2. The permittee shall not operate an emission unit or process equipment included in FGGHG unless a maintenance and malfunction abatement plan (MAP) as described in Rule 911(2), for the emission unit or process equipment has been submitted to the AQD District Supervisor, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The MAP shall address the following emission units and flexible groups:

- a. EUEAF and EUVTD for the CO and VOC reaction chamber, Direct Evacuation Control (DEC), quench system, DVBAGHOUSE-01, and the oxy-fuel burners (in EUEAF)
- b. EULMF and ladle bay roof monitor for DVLMFBAGHOUSE
- c. EUCASTER, defining good combustion practices for the Oxy-fuel torches and requiring parameters for natural gas meter calibration.
- d. EUCASTERCOOLTWR for the drift eliminator.
- e. EUBILLETREHEAT-WB. for the Ultra-Low NOx Burners.
- f. EUDUST-SILO for the silo vent fabric filter.

The permittee shall amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.<sup>2</sup> (R 336.1910, R 336.2803, R 336.2804, R 336.2810)

## IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

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 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.<sup>2</sup> (R 336.1205, R 336.2803, R 336.2804)
- 2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO<sub>2</sub>e emission calculation records for FG102-12A, as required by SC I.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> (R 336.1810)

#### 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

PTI No: MI-PTI-B7061-2016

## VIII. STACK/VENT RESTRICTION(S)

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

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

## IX. OTHER REQUIREMENT(S)

NA

## Footnotes:

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

PTI No: MI-PTI-B7061-2016

## FGMACT-YYYYY FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

The affected source is a new or existing electric arc furnace (EAF) steelmaking facility, which is (part of) an area source of hazardous air pollutant (HAP) emissions. The affected source is an EAF steelmaking facility as defined by 40 CFR Part 63 Subpart YYYYY.

**Emission Unit: EUEAF** 

## **POLLUTION CONTROL EQUIPMENT**

**DVBAGHOUSE-01** 

### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements		
1. PM	0.0052 grains/dscf <sup>2</sup>	Test Protocol*	EAF control device	SC V.1	40 CFR 63.10686(b)(1)		
2. VE	6% <sup>2</sup>	Test Protocol*	Melt Shop**	SC V.2	40 CFR 63.10686(b)(2)		
Test protocol shall specify averaging time							

<sup>\*\*</sup> Melt shop emissions include only emissions from an EAF

## II. MATERIAL LIMIT(S)

- 1. For metallic scrap utilized in the EAF at the facility, the permittee must comply with the requirements in paragraph (a)(1) of 40 CFR 63.10685.<sup>2</sup> (40 CFR 63.10685)
  - a. For metallic scrap utilized in the EAF at the facility under 40 CFR 63.10685(a)(1) (Pollution Prevention Plan), the scrap utilized shall meet the following requirements:<sup>2</sup> (40 CFR 63.10685)
    - i. Scrap materials must be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.<sup>2</sup> (40 CFR 63.10685(a)(1)(i))
    - ii. Scrap shall be depleted (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel.<sup>2</sup> (40 CFR 63.10685(a)(1)(ii)
    - iii. The requirements of 40 CFR 63.10685(a)(1) do not apply to the routine recycling of baghouse bag or other internal process or maintenance materials in the furnace.<sup>2</sup> (40 CFR 63.10685(a)(1)(iv)

## III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain an approved Pollution Prevention Plan by the applicable compliance date specified in 40 CFR 63.10680. The Pollution Prevention Plan shall be kept on site and include the following, as applicable:

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

a. Control (to the extent practicable) of chlorinated plastics, lead, and free organic liquids per 40 CFR 63.10685(a)(1)(i-iv).

b. Provisions to meet the mercury requirements as specified in 40 CFR 63.10685(b). The permittee shall revise the plan within 60 days after a change occurs.

The permittee shall submit the scrap pollution prevention plan to the permitting authority for approval. The permittee shall operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. The permittee may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. The permittee shall keep a copy of the plan onsite, and must provide training on the plan's requirements to all plant personnel with materials acquisition or inspection duties.<sup>2</sup> (40 CFR 63.10685)

## IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

1. The permittee shall not operate any EAF at the steelmaking facility unless a capture and collection system is properly installed, maintained, and operated. Collection from an EAF must include charging, melting and tapping operations.<sup>2</sup> (40 CFR 63.10686(a))

## V. TESTING/SAMPLING

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

- 1. Within 180 days after the applicable compliance date specified in 40 CFR 63.10681, the permittee shall conduct a performance test to demonstrate initial compliance with PM emission limits for each EAF. The permittee shall conduct the performance test as specified in §63.7 and 40 CFR 60.275a, and 40 CFR 63.10686(d)(1)(i)-(vi). 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. (40 CFR 63.10686(d)(1))
- 2. The permittee shall conduct each opacity test for melt-shop fugitive emissions according to the requirements in §63.6(h) and Method 9 of Appendix A-4 of 40 CFR Part 60. When emissions from an EAF vessel are combined with emissions from emission sources not subject to this subpart, compliance with the melt shop opacity limit shall be based on emissions from only the emission sources subject to this subpart. 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.<sup>2</sup> (40 CFR 63.10686(d)(2))
- 3. During any performance test, the permittee shall monitor and record the information specified in 40 CFR 60.274a(h) for all heats covered by the test.<sup>2</sup> (40 CFR 63.10686(d)(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 records for the Pollution Prevention Plan in SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.<sup>2</sup> (40 CFR 63.10685(c)(1)(i) & (2))
- 2. The permittee shall comply with the requirements of the General Provisions of 40 CFR Part 63, Subpart A according to Table 1 in 40 CFR Part 63, Subpart YYYYY. (40 CFR 63.10690(a))
- 3. The notification of compliance status required by 40 CFR 63.9(h) shall include each applicable certification of compliance, signed by a responsible official, according to 40 CFR 63.10690(b)(1)-(6).<sup>2</sup> (40 CFR 63.10690(b))

PTI No: MI-PTI-B7061-2016

## VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. If subject to the requirements for a site-specific plan for mercury under 40 CFR 63.10685(b)(1) of this section, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports shall include a certification that the permittee has conducted inspections or taken other means of corroboration as required under 40 CFR 63.10685(b)(1)(ii)(C). This information may be included in the semiannual compliance reports required under SC VII.2.<sup>2</sup> (40 CFR 63.10685(c)(1)(ii))
- 5. The permittee shall submit semiannual compliance reports regarding the control of contaminants from scrap according to the requirements in 40 CFR 63.10(e). The report must clearly identify any deviation from the requirements in 40 CFR 63.10685(a) and (b) and the corrective action taken. The permittee shall identify which compliance option in paragraph (b) applies to each scrap provider, contract, or shipment.<sup>2</sup> (40 CFR 63.10685(c)(3))

See Appendix 8-1

## VIII. STACK/VENT RESTRICTION(S)

NA

### IX. OTHER REQUIREMENT(S)

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 YYYYY for Area Sources: Electric Arc Furnace Steel Making Facilities by the initial compliance date.<sup>2</sup> (40 CFR Part 63, Subparts A and YYYYY)

#### Footnotes:

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

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

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

## FGNSPS-SI-ICE FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

This table contains requirements of the New Source Performance Standards for Stationary Spark Ignition - Internal Combustion Engines, 40 CFR Part 60, Subpart JJJJ for spark ignition (SI, i.e natural gas/propane) emergency generators.

**Emission Unit:** EUADMINGEN

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
	Spark Ig	nition Engines H	IP≥130, 2009 Model Yea	rs and Later	
1. NOx	2.0 g/HP-hr. (160 ppmvd @15% O2) <sup>2</sup>	Instantaneous	SI Engines HP≥130 model year 2009*	SC VI.1	40 CFR 60.4233(d)
2. CO	4.0 g/HP-hr. (540 ppmvd @15% O2) <sup>2</sup>	Instantaneous	SI Engines HP≥130 model year 2009*	SC VI.1	40 CFR 60.4233(d)
3. VOC	1.0 g/HP-hr. (86 ppmvd @15% O2) <sup>2</sup>	Instantaneous	SI Engines HP≥130 model year 2009*	SC VI.1	40 CFR 60.4233(d)

<sup>\*</sup>beginning model year

4. Emergency engines manufactured after January 1, 2009, which are greater than or equal to 25 horsepower (HP) must comply with the emission standards in Table 1 of 40 CFR Part 60, Subpart JJJJ (with the exception of gasoline and rich burn engines that use liquefied petroleum gas [LPG]).<sup>2</sup> (40 CFR 60.4233(d))

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate the emergency generators for more than 500 hours per year.<sup>2</sup> (R 336.1213(3)
- 2. The permittee shall operate each emergency generator according to the requirements in paragraphs below:
  - a. There is no time limit on the use of emergency stationary RICE in emergency situations.<sup>2</sup> (40 CFR 60.4243(d)(1))
  - b. The permittee may operate each emergency stationary ICE for a maximum of 100 hours per calendar year for any of the following:

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

i. For maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.<sup>2</sup> (40 CFR 60.4243(d)(2)(i))

3. The permittee may operate the emergency stationary ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing.<sup>2</sup> (40 CFR 60.4243(d)(3))

## IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The permittee shall equip the SI generator with a non-resettable hour meters to track the number of operating hours.<sup>2</sup> (40 CFR 60.4237)
- 2. Except as provided in SC IV.3, and SC V.1, the engine must be installed and configured according to the manufacturer's emission-related specifications.<sup>2</sup> (40 CFR 60.4243(a)(1))
  - a. Operate and maintain the stationary SI ICE and control device according to the manufacturer's emission-related written instructions.
  - b. Adjust engine settings according to and consistent with the manufacturer's instructions, and your stationary SI ICE will not be considered out of compliance.
  - c. Meet the requirements of 40 CFR Part 1068, Subparts A to D, as applicable.
- 3. If the engine and control device, if applicable, is not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered non-certified and you must demonstrate compliance as follows:<sup>2</sup> (40 CFR 60.4243(a)(2)(ii),(iii))
  - a. For each stationary SI ICE greater than or equal to 100 HP, the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

## V. TESTING/SAMPLING

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

- 1. If the engine and control device (if applicable) is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:<sup>2</sup> (40 CFR 60.4243(a)(2)(ii))
  - a. For each stationary SI ICE greater than or equal to 100 HP and less than 500 HP conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

## VI. MONITORING/RECORDKEEPING

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

1. Except as provided in SC IV.2 and SC V.1 for 2009 model year and later engines, the permittee must comply with the emission standards specified in 40 CFR 60.4233(d) by purchasing an engine certified to the emission standards in Table 1 to Subpart JJJJ for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.<sup>2</sup> (40 CFR 60.4243(a))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

2. Records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter.<sup>2</sup> (40 CFR 60.4245(b))

3. Record the time of operation of the engine and the reason the engine was in operation during that time.<sup>2</sup> (40 CFR 60.4245(b))

## 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. The permittee shall comply with all applicable provisions of the SI ICE NSPS, 40 CFR Part 60, Subpart JJJJ. (40 CFR Part 60, Subpart JJJJ)
- 2. Compliance with this Flexible Group represents compliance with 40 CFR Part 63, Subpart ZZZZ, and 40 CFR Part 60, Subpart JJJJ.<sup>2</sup> (40 CFR Part 63, Subpart ZZZZ, 40 CFR Part 60, Subpart JJJJ)

#### Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## FGMACT-ZZZZ-EMERGENCY RICE FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

Each existing emergency stationary reciprocating internal combustion engines (RICE) as identified within 40 CFR Part 63, Subpart ZZZZ, 40 CFR 63.6590(a)(1), and is exempt from the requirements of Rule 201 pursuant to Rules 282(b) or 285(g)

Compliance date - May 3, 2013 for CI Engines

Emission Units: EUFINISHINGGEN, EUMAINPUMPHOUSEGEN

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. <u>EMISSION LIMIT(S)</u>

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

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall operate and maintain any affected RICE, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.<sup>2</sup> (40 CFR 63.6605(b))
- 2. The permittee shall operate each existing emergency stationary RICE according to the requirements in paragraphs below:
  - a. There is no time limit on the use of emergency stationary RICE in emergency situations.<sup>2</sup> (40 CFR 63.6640(f)(1))
  - b. The permittee may operate each emergency stationary RICE for a maximum of 100 hours per calendar year for any of the following purpose: (40 CFR 63.6640(f)(2))
    - i. For maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.<sup>2</sup> (40 CFR 63.6640(f)(2)(i))

- c. The permittee may operate each emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year operation provided for maintenance and testing in SC III.2.b. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.<sup>2</sup> (40 CFR 63.6640(f)(4))
- 3. The permittee shall comply with the following requirements, for each existing emergency stationary RICE, by the applicable compliance date.<sup>2</sup> (40 CFR 63.6603, Table 2d)

## a. For CI Engines:

- Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.5.
- ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
- iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 4. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in 40 CFR 63.6603 and as listed in SC III.2. The oil analysis program must be performed at the same frequency as oil changes are required. The analysis program must analyze the parameters and keep records as required in 40 CFR 63.6625(i) for CI engines or 40 CFR 63.6625(j) for SI engines.<sup>2</sup> (40 CFR 63.6625(i) & (j))

## IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The permittee shall equip and maintain each existing emergency stationary RICE with a non-resettable hour meter.<sup>2</sup> (40 CFR 63.6625(f))
- 2. The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air-pollution control practice for minimizing emissions.<sup>2</sup> (40 CFR 63.6625(e); 40 CFR 63.6640(a), Table 6)

#### V. TESTING/SAMPLING

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

1. If using the oil analysis program for CI Engine(s), the permittee shall test for Total Base Number, viscosity and percent water content. (40 CFR 63.6625(i))

#### 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 all records required by 40 CFR 63.6655 (except 63.6655(c)).2 (40 CFR 63.6655(a))
- 2. The permittee shall maintain, at a minimum, the following records by the applicable compliance date:
  - a. A copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart ZZZZ and the documentation supporting each notification and report.<sup>2</sup> (40 CFR 63.6655(a)(1))
  - b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.<sup>2</sup> (40 CFR 63.6655(a)(2))

ROP No: MI-ROP-B7061-2016
Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

c. Records of all required maintenance performed on the air pollution control and monitoring equipment.<sup>2</sup> (40 CFR 63.6655(a)(4))

- d. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.<sup>2</sup> (40 CFR 63.6655(a)(5))
- 3. The permittee shall keep records as required in SC IV.2 to show continuous compliance with each emission or operating limit that applies.<sup>2</sup> (40 CFR 63.6655(d), 40 CFR 63.6660)
- 4. The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's maintenance plan.<sup>2</sup> (40 CFR 63.6655(e), 40 CFR 63.6660)
- 5. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document: <sup>2</sup> (40 CFR 63.6655(f), 40 CFR 63.6660)
  - a. How many hours are spent for emergency operation.
  - b. What classified the operation as emergency.
  - c. How many hours are spent for non-emergency operation.

## 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. 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, as they apply to FGMACT-ZZZZ-EMERGENCY RICE. The permittee may choose an alternative compliance method not listed in FGMACT-ZZZZ-EMERGENCY RICE by complying with all applicable provisions required by Subpart ZZZZ for the compliance option chosen.<sup>2</sup> (40 CFR 70.6(9), 40 CFR 63.9(j), 40 CFR Part 63, Subparts A and ZZZZ)

## Footnotes:

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

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

PTI No: MI-PTI-B7061-2016

## FGRULE290 FLEXIBLE GROUP CONDITIONS

## **DESCRIPTION**

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

Emission Units: EUPAINTING, EUTURNER, and EUMILLSAWBH

## **POLLUTION CONTROL EQUIPMENT**

NA

## I. <u>EMISSION LIMIT(S)</u>

- 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))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

- 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

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 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))
  - Records identifying if each air contaminant is controlled or uncontrolled. (R 336.1213(3))
  - 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))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

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))

## 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

PTI No: MI-PTI-B7061-2016

## 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: EUPARTSWASHER

## **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:

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

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

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. 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))

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

PTI No: MI-PTI-B7061-2016

# 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. Abbreviations and Acronyms

The following is an alphabetical listing of abbreviations/acronyms that may be used in this permit.

The following	is an alphabetical listing of abbreviations/acro		•
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 <sub>2</sub> e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/	Michigan Department of Environmental	°F	Degrees Fahrenheit
department	Quality	gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H <sub>2</sub> S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental	NO <sub>x</sub>	Oxides of Nitrogen
	Quality	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10
NESHAP	National Emission Standard for Hazardous		microns in diameter
NSPS	Air Pollutants 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
SDS	Safety Data Sheet	sec	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection	μg	Microgram
	Agency	μm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

<sup>\*</sup>For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 pounds per square inch gauge (psig).

PTI No: MI-PTI-B7061-2016

# Appendix 2-1. Schedule of Compliance

The permittee certified in this ROP application that the stationary source is in compliance with all applicable requirements of this ROP. However, the permittee is currently in noncompliance with FGMELTSHOP, SC I.4, I.6, I.7, I.18 and I.19. Compliance testing conducted subsequent to the permit application submittal showed that the facility was exceeding the permitted PM10, PM2.5 and VOC emission limits for FGMELTSHOP.

A Schedule of Compliance for any applicable requirements that the permittee is not in compliance with at the time of the ROP issuance is supplemental to, and shall not sanction non-compliance with, the underlying applicable requirements on which it is based.

As reflected in the Schedule of Compliance below, the permittee shall implement corrective measures to comply with the PM10, PM2.5 and VOC emission limits and incorporate those measures into an enforceable Consent Order and the Renewable Operating Permit.

# **Schedule of Compliance**

The following schedule of compliance conforms to the provisions of Rule 119(a) and Rule 213(4).

Emission Unit/ Flexible Group ID and Condition No.	Applicable Requirement	Remedial Measure	Required Action	Milestone Date	Progress Reports
FGMELTSHOP, SC I.4, I.6, I.7, I.18, I.19	R 336.1205 R 336.2803 R 336.2804 R 336.2810	Compliance with PM10, PM2.5 and VOC emission limits.	TBD	TBD	TBD

#### **Progress Reports**

The permittee shall submit Certified Progress Reports to the appropriate AQD District Supervisor using the MDEQ Report Certification form (EQP 5736). Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor. (R 336.1213(4)(b))

Progress reports shall contain the following information:

The projected dates for achieving scheduled activities, milestones or compliance as required in the schedule of compliance. (R 336.1213(4)(b)(i))

The actual dates that the activities, milestones, or compliance are achieved. (R 336.1213(4)(b)(i))

An explanation of why any dates in the schedule of compliance were not or will not be met. (R 336.1213(4)(b)(ii))

A description of any preventative or corrective measures adopted in order to ensure that the schedule of compliance is met. (R 336.1213(4)(b)(ii))

#### **Appendix 3-1. 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.

PTI No: MI-PTI-B7061-2016

# Appendix 4-1. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable

# **Appendix 5-1. 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-B7061-2009. 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-B7061-2009a is being reissued as Source-Wide PTI No. MI-PTI-B7061-2016.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
102-12A*	NA	The entire facility is being updated to operate at an increased capacity. This included new and updated emission units.	All
102-12	NA	PSD Permit for the installation and modification of emission units	All
182-11	201200150	Legal name change of the facility to Gerdau Macsteel Inc.	All
182-11A	NA	Temporary Boiler	NA
244-10	NA	Caster	EUCASTER

# **Appendix 7-1. Emission Calculations**

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible group Special Conditions. Therefore, this appendix is not applicable

# 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.

PTI No: MI-PTI-B7061-2016

# **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. Continuous Emission Monitoring Systems**

A. CO and SO2 Monitoring Continuous Emission Rate Monitoring System (CERMS) Requirements.

For an existing CERMS: If the permittee has satisfied the installation and testing requirements, Items 1-4 do not apply.

- 1. Within 30 calendar days after the 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
CO	4
SO2	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 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 special conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
  - b) A report of all periods of CERMS downtime and corrective action.
  - c) A report of the total operating time of the FGMELTSHOP 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.

PTI No: MI-PTI-B7061-2016

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.

# B. Continuous Opacity Monitoring System (COMS) Requirements

For an existing COMS: If the permittee has satisfied the installation and performance specification requirements, Items 1-4 do not apply.

- 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 COMS.
- 2. Within 150 calendar days after commencement of trial operation, the permittee shall submit two copies of a complete test plan for the COMS 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 COMS.
- 4. 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.
- 5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
- 6. 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.
- 7. 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. The results of the annual audit shall be submitted to the AQD within 30 days after the end of the next calendar quarter in which the audit results are received.
- 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 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 limit. 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 FGMELTSHOP during the reporting period.
  - d) If no exceedances or COMS downtime occurred during the reporting period, the permittee shall report that fact.

All monitoring data shall be kept on file for a period of at least five (5) years and made available to the AQD upon request.

PTI No: MI-PTI-B7061-2016

# Appendix 10-1. Compliance Demonstration for SO₂ and CO Emission Limitations for FGMELTSHOP

The Sulfur Dioxide and Carbon Monoxide emission limitations specified in FGMELTSHOP, SC I.9, I.10, I.12, and I.13 are combined limits for EUEAF, EULMF and EUVTD.

Emissions from EUEAF and EUVTD will be captured and directed to the DVBAGHOUSE-01. Controlled emissions from the baghouse will be emitted from SVBH-01-Stack. SVBH-01-Stack will be equipped with  $SO_2$  and CO CERMS.

Emissions from EULMF will be captured and directed to the LMF Baghouse. Controlled emissions from the LMF Baghouse will be released from SVBHLMFBaghouse-STACK. Emissions from SVBHLMFBaghouse-STACK will be evaluated via periodic stack sampling.

Compliance with the emission limitations in FGMELTSHOP, SC I.9, I.10, I.12, and I.13 will be demonstrated as follows:

# For SO<sub>2</sub>

Compliance with the pound/ton of liquid steel and pound/hour SO<sub>2</sub> emission limitations specified in FGMELTSHOP SC I.9 and I.10, respectively, shall be demonstrated using the following algorithm:

FGMELTSHOP SO<sub>2</sub> lb/hr = EAF/VTD CEMS Lb/hr + LMF SO<sub>2</sub> lb/hr (stack test value)

FGMELTSHOP SO<sub>2</sub> lb/ton = EAF/VTD CEMS Lb/ton + LMF SO<sub>2</sub> lb/ton (stack test value)

#### For CO

Compliance with the pound/ton of liquid steel and pound/hour CO emission limitations specified in FGMELTSHOP SC I.12 and I.13, respectively, shall be demonstrated using the following algorithm:

FGMELTSHOP CO lb/hr = EAF/VTD CEMS Lb/hr + LMF CO lb/hr (stack test value)

FGMELTSHOP CO lb/ton = EAF/VTD CEMS Lb/ton + LMF CO lb/ton (stack test value)

PTI No: MI-PTI-B7061-2016

# **SECTION 2 – Tube City IMS**

PTI No: MI-PTI-B7061-2016

# 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.,

# Section 2 - Tube City IMS

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

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).<sup>2</sup> (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:" (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. (R 336.1901(a))
  - b. Unreasonable interference with the comfortable enjoyment of life and property. (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).<sup>2</sup> (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.

# Section 2 – Tube City IMS

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

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.<sup>2</sup> (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))

# Section 2 – Tube City IMS

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

- 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):
  - a. June 21, 1999,
  - b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
  - c. 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))

PTI No: MI-PTI-B7061-2016

# **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. (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. (R 336.1201(8), Section 5510 of Act 451)
- 45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, MDEQ.<sup>2</sup> (R 336.1219)
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months 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:

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

<sup>&</sup>lt;sup>2</sup>This 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.

# 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
EUSLAGPLANT	Slag processing plant – consisting of a hopper/feeder with grizzly, two shaker screens and several belt conveyors and stackers, water sprays as needed	1989	FGPLANT PROC
EUDROPBALL	Large slag pieces broken into smaller pieces by dropballing	1989	FGPLANT PROC
EUROADS	Roadway emissions resulting from the transfer of slag	1989	FGPLANT PROC
EUSTOCKPILES	Slag stockpiles assorted to various size fractions	1989	FGPLANT PROC
EUSLAGPIT	Slag pit digging and dumping of molten slag	1989	FGPLANT PROC
EUSCRAPCUT	Large scrap pieces cut by either a torch or lance into smaller pieces	1989	FGPLANT PROC

# 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
FGPLANT PROC	Metal Recovery Processes	EUSLAGPLANT EUDROPBALL EUROADS EUSTOCKPILES EUSLAGPIT EUSCRAPCUT

PTI No: MI-PTI-B7061-2016

# FGPLANT PROC FLEXIBLE GROUP CONDITIONS

# **DESCRIPTION**

Metal Recovery Processes

Emission Units: EUSLAGPLANT, EUDROPBALL, EUROADS, EUSTOCKPILES, EUSLAGPIT, EUSCRAPCUT

# **POLLUTION CONTROL EQUIPMENT**

Water Spray

# I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fugitive Dust	15% opacity <sup>2</sup>	15-minute average	EUSLAGPLANT (Slag Crushers)	SC VI.1 & 2	R 336.1301 R 336.1331
2. Fugitive Dust	10% opacity <sup>2</sup>	15-minute average	EUDROPBALL EUSLAGPIT EUSLAGPLANT (Belts conveyors, screens, and all transfer points on the belt conveyors)	SC VI.1 & 2	R 336.1301 R 336.1331
3. Fugitive Dust	5% opacity <sup>2</sup>	3-minute average <sup>a,b</sup>	EUROADS EUSTOCKPILES (Any road, lot, storage pile, or material handling activity at a storage pile)	SC VI.1 & 2	Act 451, Section 5524, Paragraph (2) and Section 5525, Paragraph (j)

in accordance with Test Method 9D at Act 451, Section 5525, Paragraph (j)

# II. MATERIAL LIMIT(S)

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

# III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall implement the program for fugitive dust control specified in Appendix 3-2.<sup>2</sup> (R 336.1371, Act 451 324.5524)
- 2. For EUSCRAPCUT, the permittee shall submit a Best Management Practices (BMPs) plan for torch cutting within 60 days of the ROP issuance to the AQD District Supervisor for approval. (R 336.1213(3))

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

PTI No: MI-PTI-B7061-2016

# 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 keep, in a satisfactory manner, daily records of dust control activities for FGPLANT PROC. All records shall be kept on file for a period of at least five years and made available to the Department upon request.<sup>2</sup> (Act 451, Section 324.5524, R 336.1301, R 336.1371)
- 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 initiate corrective action upon observation of visible emissions and shall keep a written or electronic record of each required observation and corrective action taken. (R 336.1213(3))

#### See Appendix 3-2

# 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 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 RESTRICTION(S)

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

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

# IX. OTHER REQUIREMENT(S)

NA

# Footnotes:

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

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

Section 2 – Tube City IMS

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021 PTI No: MI-PTI-B7061-2016

# **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

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	СО	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2</sub> e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/	Michigan Department of Environmental	°F	Degrees Fahrenheit
department	Quality	gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	·	_	•
GACS	Gallons of Applied Coating Solids General Condition	hr HP	Hour
			Horsepower
GHGs	Greenhouse Gases	H <sub>2</sub> S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental	$NO_x$	Oxides of Nitrogen
	Quality	ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10
NAAQS	National Ambient Air Quality Standards		microns in diameter
NESHAP	National Emission Standard for Hazardous	PM2.5	Particulate Matter equal to or less than 2.5
	Air Pollutants		microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection		Microgram
USLFAVEFA	Agency	μg	
\/E		μm VOC	Micrometer or Micron
VE	Visible Emissions		Volatile Organic Compounds
		yr	Year

<sup>\*</sup>For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Section 2 – Tube City IMS

ROP No: MI-ROP-B7061-2016 Expiration Date: December 1, 2021

PTI No: MI-PTI-B7061-2016

# 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**

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGPLANT PROC.

# FUGITIVE DUST CONTROL PLAN

PURPOSE: This plan provides dust control strategies for the areas adjacent to and associated with the metal recovery plant.

#### 1. SITE MAINTENANCE.

- a. The unpaved travel surfaces shall be treated with water, or other acceptable dust control agents as needed on a frequency sufficient to meet the visible emission opacity standard of 5% opacity specified in Michigan Act 451, Section 5524.
- b. Stock piling will be performed in a manner that minimizes freefall drop distance.
- c. Piles will be maintained to prevent fugitive dust. This may include the use of watering, covering and/or encrusting agents.
- d. Any scrap or slag material spillage on roads shall be removed immediately.

# 2. MANAGEMENT OF FRONT-END LOADER OPERATIONS.

The front-end loader operator shall be directed to avoid overfilling the bucket of the loader and the feed hoppers to prevent spillage, and to minimize the drop height of the materiel when loading the feed hoppers or transferring material to stockpiles.

# 3. RECORDKEEPING.

Records of dust control activities on storage piles, travel surfaces and other surfaces where fugitive dust emissions occur shall be kept on file for a period of at least five years and made available to MDEQ staff upon request. The records will indicate the date, time, what was observed or the reason for the dust control activity (routine or other), and what action was taken.

# Appendix 4-2. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

PTI No: MI-PTI-B7061-2016

# **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 Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-B7061-2016. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
537-89A	Metal Recovery Plant	FGPLANT PROC

# 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, 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.