

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

EFFECTIVE DATE: January 8, 2025

ISSUED TO

CWC Textron

State Registration Number (SRN): B1909

LOCATED AT

1085 West Sherman Boulevard, Muskegon, Muskegon County, Michigan 49441

RENEWABLE OPERATING PERMIT

Permit Number: ROP0000429 v5.0

Expiration Date: January 8, 2030

Administratively Complete ROP Renewal Application
Due Between July 8, 2028 and July 8, 2029

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 Rule 210(1) of the administrative rules promulgated under Act 451, 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: SWPTI0000429 v5.0

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, 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 Environment, Great Lakes, and Energy

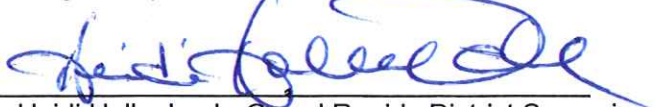

Heidi Hollenbach, Grand Rapids District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	3
A. GENERAL CONDITIONS.....	4
Permit Enforceability	4
General Provisions.....	4
Equipment & Design	5
Emission Limits.....	5
Testing/Sampling	5
Monitoring/Recordkeeping	6
Certification & Reporting	6
Permit Shield	7
Revisions	8
Reopenings.....	8
Renewals.....	9
Stratospheric Ozone Protection	9
Risk Management Plan.....	9
Emission Trading	9
Permit to Install (PTI)	10
B. SOURCE-WIDE CONDITIONS	11
C. EMISSION UNIT SPECIAL CONDITIONS	14
EMISSION UNIT SUMMARY TABLE.....	14
EU-POURING.....	16
EU-BULK-BOND.....	19
EU-DUCTILE-IRON	21
EU-NEW-SAND	24
EU-WEST-CUPOLA-1	26
EU-MP-RBB.....	31
EU-ACS-SAND	35
D. FLEXIBLE GROUP SPECIAL CONDITIONS.....	38
FLEXIBLE GROUP SUMMARY TABLE.....	38
FG-MACT-ZZZZZ	39
FG-PARTICULATE	43
FG-PROJECT-2021	46
E. NON-APPLICABLE REQUIREMENTS	48
APPENDICES	49
Appendix 1. Acronyms and Abbreviations.....	49
Appendix 2. Schedule of Compliance.....	50
Appendix 3. Monitoring Requirements	50
Appendix 4. Recordkeeping	50
Appendix 5. Testing Procedures	51
Appendix 6. Permits to Install.....	51
Appendix 7. Emission Calculations	52
Appendix 8. Reporting	52

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 Environment, Great Lakes, and Energy (EGLE) 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 is state-only enforceable will be noted as such.

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

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

Equipment & Design

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

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"² **(R 336.1301(1))**
 - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(R 336.1901(b))**

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state 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 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
 - a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; “based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete.” The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² **(R 336.1912)**

Permit Shield

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

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

27. Nothing in this ROP shall alter or affect any of the following:
 - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
 - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

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

Revisions

- 30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
- 31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
- 32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**
- 33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Each Individual HAP	Less than 9.0 tpy ²	12-month rolling time period as determined at the end of each calendar month	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment, and exempt equipment.	VI.3 & VI.4	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment, and exempt equipment.	VI.3 & VI.4	R 336.1205(3)

II. MATERIAL LIMIT(S)

- The permittee shall not melt more than 129,325 tons per year of iron, based on a 12-month rolling time period, as determined at the end of each calendar month.² (**R 336.1205, R 336.1225, R 336.1702, R 336.2803, R 336.2804**)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.2818, 40 CFR 52.21(r)(6)(c)(iii))**
2. Monthly records of iron melt quantities to determine compliance with the 12-month rolling limit of 129,325 tons.² **(R 336.1205(3))**
3. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.² **(R 336.1205(3))**
4. Individual and aggregate HAP emission calculations determining the cumulative emission rate of each during the first 12 months and the annual emission rate of each thereafter, in tons per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-POURING	Iron pouring operation including both manual and automatic pouring operations.	01-01-1964/ 01-06-2015 09-20-2021	FG-PARTICULATE FG-PROJECT-2021
EU-BULK-BOND	A storage silo and day bin which store bulk bond and have a pneumatic transport system. The silo and bin are each controlled by separate bin vent filters.	01-01-1964	FG-PROJECT-2021
EU-DUCTILE-IRON	Equipment used for preparation of ductile iron which includes magnesium treatment vessels, a desulfurization ladle with fluorspar addition and an Ajax holding furnace. The furnace is also used for regular gray iron. Emissions from ductile treatment are controlled by DC#5.	12-29-1995	FG-PROJECT-2021
EU-NEW-SAND	A bin which stores new sand. The bin is controlled by a bin vent filter.	03-07-1980	NA
EU-WEST-CUPOLA-1	Cupola #1, which is the west cupola. The emissions are controlled by two 5 MMBTU direct flame afterburners, wet cap, a high energy venturi scrubber, and a high velocity mist eliminator. Emission unit includes charging operations.	07-27-1977	FG-MACT-ZZZZZ FG-PROJECT-2021
EU-MP-RBB	Knockoff operation #227, Spiral Elevator #228, and Rocker Barrel Blast (finish blast). Baghouse collectors DC#13 and DC#1.	11-30-1998/ 01-05-2004	FG-PROJECT-2021
EU-ACS-SAND	The ACS sand handling system. The system includes: New DC#19 which controls emissions from the sand cooler #16, the sand muller, the sand distribution tower, sand elevators #18 and #23 and from the sand basement.	01-01-1964/ 10-17-2011	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-CLEAN	Metal cleaning operations which include hand grinders, cut-off saw, stand grinders, and the West tumblast shotblaster. Emissions from the metal cleaning operations and the West tumblast shotblast are controlled by Wheelabrator DC#1 and the East tumblast shotblast is controlled by Wheelabrator DC#5.	01-01-1964	FG-PARTICULATE
EU-FINISHING	Metal finishing operations including milling, drilling, stand grinders, and finishing machines. Emissions from the metal finishing operations are controlled by DC#2.	03-25-1983	FG-PARTICULATE
EU-SHAKEOUT	Foundry shakeout includes the Vibra Drum #212, Shakeout #213, and the degating conveyor #225. Emissions are controlled by baghouses DC#17 and DC#6.	01-01-1964/ 01-05-2004	FG-PARTICULATE FG-PROJECT-2021
EU-AJAX-FURN	The East and West Ajax holding furnaces.	01-01-1964	FG-PARTICULATE
EU-COOLING	Cast cooling operation.	01-01-1964	FG-PARTICULATE FG-PROJECT-2021

EU-POURING EMISSION UNIT CONDITIONS

DESCRIPTION

Iron pouring operation including both manual and automatic pouring operations.

Flexible Group ID: FG-PARTICULATE, FG-PROJECT-2021

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.27 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)
2. PM10	0.15 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)
3. PM2.5	0.08 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)
4. CO	2.597 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)
5. NOx	0.14 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)
6. VOC	0.50 lb/ton of metal ²	Hourly	EU-POURING	SC V.1, VI.2 SC VI.3	R 336.2804 40 CFR 52.21(d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Metal melted	576 tons per day ¹	Daily	EU-POURING	SC VI.3	R 336.1225

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify particulate matter (PM, PM10, and PM2.5), VOC, nitrogen oxide (NOx) and carbon monoxide (CO) emission rates from EU-POURING by testing at owner's expense, in accordance with the

Department requirements at a minimum, once every 5 years, from the date of the last test. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM, PM10, PM2.5	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
NOx	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. The permittee must submit 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 336.2001, R 336.2003, R 336.2004)**

- The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

- Verification of visible emissions from the four EU-POURING vents SV-POUR1, SV-POUR2, SV-POUR3, and SV-POUR4 shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3.² **(R 336.1301(1)(c))**
- The permittee shall calculate and maintain monthly records, in a format acceptable to the AQD District Supervisor, of 12-month rolling emission rates of PM, PM10, PM2.5, CO, NOx, and VOC calculated in the appropriate units and using emission factors approved by the AQD District Supervisor.² **(R 336.1205(3))**
- The permittee shall monitor and record, in a satisfactory manner, the tons of metal melted per calendar day. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ **(R 336.1225)**

See Appendix 3

VII. REPORTING

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

See Appendix 8

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. SV-POUR1	84 ²	49 ²	R 336.1225 40 CFR 52.21(c) & (d)
2. SV-POUR2	36 ²	47 ²	R 336.1225 40 CFR 52.21(c) & (d)
3. SV-POUR3	84 ²	49 ²	R 336.1225 40 CFR 52.21(c) & (d)
4. SV-POUR4	36 ²	47 ²	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-BULK-BOND EMISSION UNIT CONDITIONS

DESCRIPTION

Storage silo and day storage bin which store bulk bond and have a pneumatic transport system. The silo and bin are each controlled by separate bin vent collectors.

Flexible Group ID: FG-PROJECT-2021

POLLUTION CONTROL EQUIPMENT

The silo and day storage bin are controlled by separate bin vent collectors.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.010 lb. per 1,000 lbs. exhaust gas, on a dry gas basis ²	Hourly	Day Storage Bin	SC III.2 SC VI.1 SC VI.2	R 336.1331(1)(c)
2. PM	0.10 lb. per 1,000 lbs. exhaust gas, on a dry gas basis ²	Hourly	Storage Silo	SC III.2 SC VI.1 SC VI.2	R 336.1331(1)(a), Table 31(J)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the bond storage silo or day bin, unless the respective filter collectors are installed and operating properly.² **(R 336.1910)**
2. The permittee shall not operate the process unless the Preventative Maintenance Plan is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. Verification of visible emissions from EU-BULK-BOND shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3. **(R 336.1213(3))**
2. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**

See Appendix 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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-DUCTILE-IRON EMISSION UNIT CONDITIONS

DESCRIPTION

Equipment used for preparation of ductile iron which includes magnesium treatment vessels, a desulfurization ladle with fluorspar addition and an Ajax holding furnace. The furnace is also used for regular gray iron.

Flexible Group ID: FG-PROJECT-2021

POLLUTION CONTROL EQUIPMENT

Dust Collector (DC) #5 – 60,000 CFM

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.01 lb. per 1,000 lbs. exhaust gas, on a dry gas basis ²	Hourly	EU-DUCTILE-IRON	SC V.1 SC VI.3 SC VI.4 SC VI.5 SC VI.6	R 336.1331(1)(c)
2. PM	2.25 lbs. per hour ²	Daily average	EU-DUCTILE-IRON	SC VI.3 SC VI.4 SC VI.5 SC VI.6	R 336.1331(1)(c)
3. PM	9.855 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU-DUCTILE-IRON	SC VI.3 SC VI.4 SC VI.5 SC VI.6	R 336.1331(1)(c)
4. Visible Emissions	10% opacity ²	6-minute average	EU-DUCTILE-IRON	SC VI.4	R 336.1301(1)(c)
5. Fluorides	1.40 milligrams per cubic meter, corrected to 70 degrees Fahrenheit and 29.92 inches ²	8-hour average	EU-DUCTILE-IRON	SC VI.1	R 336.1201(3)
6. Fluorides	0.263 lb. per hour ²	8-hour average	EU-DUCTILE-IRON	SC VI.1	R 336.1201(3)
7. Fluorides	1.15 tpy ²	12-month rolling time period as determined at the end of each calendar month	EU-DUCTILE-IRON	SC VI.1	R 336.1201(3)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fluorspar	54 lbs. per hour ²	Daily average	EU-DUCTILE-IRON	SC VI.1	R 336.1201(3)
2. Ductile Iron	Shall not inoculate more than 24 tons per hour ²	8-hour average	EU-DUCTILE-IRON	SC VI.2	R 336.1201(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the process without a properly installed and operating dust collector.² **(R 336.1910)**
2. The permittee shall not operate the process unless the Preventative Maintenance Plan specified is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the dust collector, DC#5, with instrumentation to continuously measure the pressure drop across the dust collector.² **(R 336.1910)**
2. The permittee shall equip and maintain the dust collector, DC#5, with a particle sensor device. **(R 336.1213(3))**

V. TESTING/SAMPLING

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

1. The permittee shall verify particulate matter (PM) emission rates from EU-DUCTILE-IRON by testing at owner's expense, in accordance with the Department requirements at a minimum, once prior to the ROP expiring. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. The permittee must submit 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 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record once per quarter, the actual fluorspar feed rate that is going into the process in a manner and with instrumentation acceptable to the Air Quality Division. The permittee shall keep a record of the total fluorspar used per month.² **(R 336.1201(3))**
2. The permittee shall keep a record of the amount of ductile iron produced.² **(R 336.1201(3))**
3. The permittee shall monitor and record the static pressure drop across the dust collector once per day. **(R 336.1213(3))**
4. The permittee shall perform and document non-certified visible emissions observations on a daily basis when operating during daytime hours. Each observation shall be for a minimum timeframe of 5 minutes. If during the observations there are any visible emissions detected, a USEPA Method 9 certified emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from the emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reasons

for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1213(3))**

5. The permittee shall continuously monitor the pA current readings from the particle sensor installed for DC #5 and record the readings once per day. **(R 336.1213(3))**
6. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**

See Appendix 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

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. SV-DUCTILE-IRON	48 ²	30 ²	R 336.1201(3)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-NEW-SAND EMISSION UNIT CONDITIONS

DESCRIPTION

A bin which stores new sand. The bin is controlled by a bin vent filter.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

The bin is equipped with a bin vent filter.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.03 lb. per 1,000 lbs. of exhaust gases, calculated on a dry gas basis ²	Hourly	EU-NEW-SAND	SC VI.1 SC VI.2	R 336.1331(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the sand handling equipment unless the particulate collector is installed and operating properly.² (R 336.1910)
2. The permittee shall not operate the process unless the Preventative Maintenance Plan is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. Verification of visible emissions from EU-NEW-SAND shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3. (R 336.1213(3))

2. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**

See Appendix 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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-WEST-CUPOLA-1 EMISSION UNIT CONDITIONS

DESCRIPTION

Cupola #1, which is the west cupola. The emissions are controlled by two 5 MMBtu direct flame afterburners, wet cap, a high energy venturi scrubber and a high velocity mist eliminator. Emission unit includes charging operations. Emission unit is subject to Compliance Assurance Monitoring (CAM) for particulate emissions.

Flexible Group ID: FG-MACT-ZZZZZ, FG-PROJECT-2021

POLLUTION CONTROL EQUIPMENT

Direct flame afterburner, wet cap, high energy venturi scrubber, high velocity mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.15 lb. per 1,000 lbs. of exhaust gases, calculated on a dry gas basis ²	Hourly	EU-WEST-CUPOLA-1	SC V.1 SC V.2 SC VI.1 SC VI.4 SC VI.5 SC VI.6	R 336.1331(1)(a), Table 31(D)(1)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the cupola unless the afterburner, high energy venturi scrubber, and high velocity mist eliminator are installed and operating properly.² **(R 336.1910)**
2. The permittee shall not operate the process unless the Preventative Maintenance Plan is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the water line(s) in the emission control system with a water pressure indicator.² **(R 336.1910)**
2. The permittee shall equip the high energy venturi scrubber and demister with pressure drop monitors.² **(R 336.1201(3))**
3. The permittee shall equip and maintain the high energy venturi scrubber and cupola wet cap with water flow rate indicators. **(R 336.1213(3))**

V. TESTING/SAMPLING

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

1. The permittee shall verify particulate matter and opacity emission rates from EU-WEST-CUPOLA-1 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1201(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the particulate matter and opacity emission rates from EU-WEST-CUPOLA-1, at a minimum, every five years from the date of the last test. Alternative test schedules may be used upon approval of the AQD District Supervisor.² **(R 336.1201(3), R 336.2001, R 336.2003, R 336.2004)**
3. Within 5 years of April 8, 2024 (issuance date of PTI No.69-21A), and once every five years thereafter, the permittee shall verify CO emission rates from EU-WEST-CUPOLA-1 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below:

Pollutant	Test Method Reference
CO	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 **(40 CFR 52.21(c) & (d), 336.2001, R 336.2003, R 336.2004)**

4. Opacity observations, utilizing Method 9 when operating, shall be performed and recorded semiannually.² **(R 336.1201(3), R 336.2001, R 336.2003, R 336.2004)**
5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. Verification of visible emissions from EU-WEST-CUPOLA-1 shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3.² **(R 336.1201(3))**

2. The permittee shall record the number and weight of charges added to the cupola, including a separate record of coke, on a production day basis when the cupola is operating and melting.² **(R 336.1201(3))**
3. The permittee shall maintain a monthly record of the hours of cupola operation.² **(R 336.1201(3))**
4. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**
5. The permittee shall record the water pressure rate to the high energy venturi scrubber system once per day. The gauge shall be calibrated according to manufacturer's recommendations. The indicator range is 46 to 80 PSI.² **(R 336.1201(3), 40 CFR 64.6(c)(i), (ii) & (iii))**
6. The permittee shall record the pressure differential across the high energy venturi scrubber and demister once per day. The gauge shall be calibrated according to manufacturer's recommendations. **(R 336.1213(3), 40 CFR 64.6(c)(i), (ii) & (iii))**
7. The indicator range for the pressure differential across the venturi scrubber is 30 to 56 PSI and the indicator range for the pressure differential across the demister is 0 to 3 PSI.² **((R 336.1201(3), 40 CFR 64.6(c)(i), (ii) & (iii)), 40 CFR 64.6(c)(i), and (ii))**
8. The permittee shall continuously monitor the high energy venturi scrubber liquid flow rate and record once per day, as an indicator of proper operation of the scrubber. The indicator of proper operations is a liquid flow rate above 150 gallons per minute. **(40 CFR 64.6(c)(1)(i) and (ii))**
9. The permittee shall continuously monitor the wet cap liquid flow rate and record once per day, as an indicator of proper operation. The indicator of proper operations is a liquid flow rate above 125 gallons per minute. **(40 CFR 64.6(c)(1)(i) and (ii))**
10. For each control device in operation, the permittee shall conduct bypass monitoring for each bypass line such that the valve or closure method cannot be opened without creating an alarm condition for which a record shall be made. Records of the bypass line that was opened and the length of time the bypass line was opened shall be kept on file. **(40 CFR 64.3(a)(2))**
11. The pressure gauges shall continuously monitor the pressure differential across the venturi scrubber and demister, the liquid flow rate to the high energy venturi scrubber and wet cap, and the water pressure to the high energy venturi scrubber. The monitor shall be calibrated annually or according to manufacturer recommendations, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
12. An excursion will be a departure from any of the following indicator ranges:

Venturi scrubber water pressure:	(46-80 psi during blasting)
Venturi scrubber liquid flow rate:	(≥150 gpm during blasting)
Wet cap liquid flow rate:	(≥125 gpm)
Venturi scrubber pressure differential:	(30"-56")
Demister pressure differential:	(≤3")

(40 CFR 64.6(c)(2))
13. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EU-WEST-CUPOLA-1 (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 practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**

14. 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 collect data at all required intervals at all times that EU-WEST-CUPOLA-1 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. Data recorded during monitoring malfunctions, repair activities, and QA/QC operations shall not be used for 40 CFR Part 64 compliance. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
15. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
16. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written Quality Improvement Plan (QIP), and any activities undertaken to implement a QIP, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 3

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. 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))**
5. 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))**
6. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD.² **(R 336.1201(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. 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 ROP and 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))**
2. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

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

EU-MP-RBB EMISSION UNIT CONDITIONS

DESCRIPTION

Knockoff operation #227, Spiral Elevator #228, and Rocker Barrel Blast (finish blast). Emission unit is subject to CAM for particulate emissions.

Flexible Group ID: FG-PROJECT-2021

POLLUTION CONTROL EQUIPMENT

Dust Collector (DC)#1 – 50,000 CFM
Dust Collector (DC)#13 – 40,000 CFM
Dust Collector (DC)#6 – 50,000 CFM

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.01 lb. per 1,000 lbs. of exhaust gases, calculated on a dry gas basis ²	Hourly	EU-MP-RBB	SC VI.2 SC VI.3 SC VI.4	R 336.1331(1)(c)
2. Visible Emissions	10% opacity ²	6-minute average	EU-MP-RBB	SC VI.1	R 336.1301(1)(c)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the Knockoff operation #227, Spiral Elevator #228, and Rocker Barrel Blast (finish blast) unless the dust collectors are installed and operating properly.² **(R 336.1910)**
2. The permittee shall not operate the process unless the Preventative Maintenance Plan is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the dust collectors with instrumentation to continuously measure the pressure drop across the dust collector. **(R 336.1213(3), R 336.1910)**
2. The permittee shall equip and maintain dust collectors, DC#1, DC#6 and DC#13, with particle sensor devices. **(R 336.1213(3))**

V. TESTING/SAMPLING

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

NA

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 and document non-certified visible emissions observations on a daily basis when operating during daytime hours. Each observation shall be for a minimum timeframe of 5 minutes. If during the observations there are any visible emissions detected, a USEPA Method 9 certified emissions observation shall be conducted for a minimum of 15 minutes to determine the actual opacity from the emission point. Records of the non-certified visible emissions observations, USEPA Method 9 observations that are performed, the reasons for any visible emissions in excess of 10% opacity observed, and any corrective actions taken shall be kept on file and made available to the Department upon request. **(R 336.1213(3))**
2. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**
3. The permittee shall continuously monitor the pressure differential across each dust collector and record once per day as an indicator of the proper operation of the dust collectors. The indicator ranges are as following for each dust collector: DC#1: 7–12" WC; DC#6: 7 – 12" WC, DC#13: 8-12" WC). **40 CFR 64.6(c)(1)(i), and (ii)).**
4. The permittee shall continuously monitor the pA current readings from the particle sensors installed for DC#1, DC #6, and DC #13, and record the readings once per day. The indicator range is 0-1000 pA. **40 CFR 64.6(c)(1)(i) & (ii))**
5. The pressure gauges shall continuously monitor the differential pressure across the dust collectors and the particulate sensor shall monitor the pA current of the particulates. The monitors shall be calibrated according to manufacturer recommendations or annually, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**
6. An excursion will be a departure from any of the following indicator ranges: Pressure differential across the dust collectors (DC#13: 8" – 13" WC, DC#6: 7" – 12" WC, DC#1: 7" – 12" WC), or a particle sensor pA current (0-1000 pA). **(40 CFR 64.6(c)(2))**
7. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EU-MP-RBB (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 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). Any readings that deviate from the established range requires immediate identification and investigation into the causes of the excursion. **(40 CFR 64.7(d))**
8. 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 collect data at all required intervals at all times that EU-MP-RBB 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. Data recorded during monitoring malfunctions, repair activities, and QA/QC operations shall not be used for 40 CFR Part 64 compliance. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

9. The permittee shall, at all times, maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written Quality Improvement Plan (QIP), and any activities undertaken to implement a QIP, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 3

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. 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))**
5. 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))**
6. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

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. SV-DC#13	44 ²	26 ²	R 336.1331
2. SV-DC#1	52 ²	36 ²	R 336.1331

IX. OTHER REQUIREMENT(S)

1. 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 ROP and 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))**
2. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

EU-ACS-SAND EMISSION UNIT CONDITIONS

DESCRIPTION

The ACS sand system includes: Dust Collector (DC) #19 which controls emissions from the sand cooler #16, the sand muller, the sand distribution tower, sand elevators #18 and #23, and the sand basement. Emission unit is subject to CAM for particulate emissions.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Dust Collector (DC) #19 – 90,000 CFM

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb. per 1,000 lbs. of exhaust gas, on a dry gas basis ²	Hourly	EU-ACS-SAND	SC III.1 SC.VI.1 SC.VI.2 SC VI.3	R 336.1331(1)(a), Table 31(J)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-ACS-SAND unless the dust collector, DC#19, is installed and operating properly.² **(R 336.1910)**
2. The permittee shall not operate any of the processes unless the Preventative Maintenance Plan is implemented and maintained. Acceptable plans and any modifications shall be submitted to the AQD District Supervisor. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the dust collector, DC#19, with instrumentation to continuously measure the pressure drop across the dust collector. **(R 336.1213(3), R 336.1910)**

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. Verification of visible emissions from EU-ACS-SAND shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3. **(R 336.1213(3))**

2. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**
3. The permittee shall continuously monitor the differential-pressure drop across the dust collector and record once per day as an indicator of the proper operation of the dust collector. The indicator range is 3-7" WC. **(40 CFR 64.6(c)(1)(i) and (ii))**
4. An excursion will be departure from the indicator range of 3 to 7" WC for the pressure drop across the dust collector (DC #19). **(40 CFR 64.6(c)(2))**
5. Upon detecting an excursion or exceedance, the permittee shall restore operation of EU-ACS-SAND 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). Any readings that deviate from the established range requires immediate identification and investigation into the causes of the excursion. **(40 CFR 64.7(d))**
6. 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 collect data at all required intervals at all times that EU-ACS-SAND 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. Data recorded during monitoring malfunctions, repair activities, and QA/QC operations shall not be used for 40 CFR Part 64 compliance. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
7. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written Quality Improvement Plan (QIP), and any activities undertaken to implement a QIP, 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))**
8. For EU-ACS-SAND, the permittee shall, at all times, maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**

See Appendix 3

VII. REPORTING

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

5. 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))**
6. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. 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 ROP and 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))**
2. For EU-ACS-SAND, the permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

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

D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-MACT-ZZZZZ	The affected source is an existing iron and/or steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. The affected source is an existing large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.	EU-WEST-CUPOLA-1
FG-PARTICULATE	Various particulate emission sources.	EU-POURING EU-CLEAN EU-FINISHING EU-SHAKEOUT EU-AJAX-FURN EU-COOLING
FG-PROJECT-2021	An increase in the facility-wide melt limit. An Actual-to-Projected Actual analysis was used to determine a non-significant emission increase.	EU-POURING EU-COOLING EU-SHAKEOUT EU-WEST-CUPOLA-1 EU-DUCTILE-IRON EU-BULK-BOND EU-MP-RBB
FG-RULE290	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 290. Emission units installed/modified before December 20, 2016, may show compliance with Rule 290 in effect at the time of installation/modification.	NA
FG-COLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a, and Rule 281(2)(h) or Rule 285(2)(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.	NA

FG-MACT-ZZZZZ FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The affected source is an existing iron and/or steel foundry that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. The affected source is an existing large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.

Emission Unit: EU-WEST-CUPOLA-1

POLLUTION CONTROL EQUIPMENT

Two 5 MMBTU direct flame afterburner, wet cap, high energy venturi scrubber, high velocity mist eliminator.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity (fugitive)	20% 6-min. average, except for one 6-min. average per hour that does not exceed 30% ²	6-minute average	Each Building or Structure Housing any Iron or Steel Foundry Emission Source	SC V.1	40 CFR 63.10895(e)
2. PM	0.8 pounds per ton of metal charged	Hourly	EU-WEST-CUPOLA-1	SC V.2	40 CFR 63.10895(c)
---OR---	---OR---				
Total Metal HAP	0.06 pound per ton of metal charged ²				

II. MATERIAL LIMIT(S)

- The permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a furfuryl alcohol warm box mold or core making line. This requirement does not apply to the resin portion of the binder system.² **(40 CFR 63.10886)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- For each segregated metallic scrap storage area, bin, or pile, the permittee must comply with the material acquisition requirements contained in 40 CFR 63.10885(a)(1) or 40 CFR 63.10885(a)(2).² **(40 CFR 63.10885(a))**
- For scrap containing motor vehicle scrap, the permittee must procure the scrap pursuant to one of the compliance options in 40 CFR 63.10885(b)(1), (2), or (3).² **(40 CFR 63.10885(b))**
- The permittee shall operate a capture and collection system for each metal melting furnace at a new or existing iron and steel foundry unless that furnace is specifically uncontrolled as part of an emissions averaging group.

Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.² **(40 CFR 63.10895(b))**

4. The permittee shall prepare and operate, at all times, according to a written Operation and Maintenance Plan (O&M Plan) for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. At a minimum the plan must contain the information listed in 40 CFR 63.10896(a)(1)-(6)).² **(40 CFR 63.10896)**
5. The permittee shall conduct inspections of each operating particulate matter control device for a metal melting furnace in accordance with 40 CFR 63.10897(a).² **(40 CFR 63.10897(a))**
6. The permittee shall conduct monthly inspections of the equipment important to the performance of the total capture system in accordance with 40 CFR 63.10897(e).² **(40 CFR 63.10897(e))**
7. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
 - a. Metallic scrap management program. **(40 CFR 63.10885(a))**
 - b. Mercury requirements. **(40 CFR 63.10885(b))**

The permittee shall revise the plan within 30 days after a change occurs.² **(40 CFR 63.10885)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall conduct a performance test to demonstrate compliance with the opacity limit in 40 CFR 63.10895(e), following the test methods and procedures in 40 CFR 63.6(h)(5) and Table 1 of Subpart ZZZZZ. Subsequent compliance testing shall be conducted no less frequently than every 6 months and each time a process change likely to increase fugitive emissions is made.² **(40 CFR 63.10898(h), 40 CFR 63.10898(i), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall conduct performance testing to demonstrate compliance with applicable Particulate Matter or Total Metal HAP emission rates from EU-WEST-CUPOLA-1 according to the requirements in 40 CFR 63.7(e)(1), and Table 1 of Subpart ZZZZZ and paragraphs (d) through (g) of subsection 40 CFR 63.10898. The permittee shall conduct subsequent compliance testing to demonstrate compliance with all applicable emission limits no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions.² **(40 CFR 63.10898(b), R 336.2001, R 336.2003, R 336.2004)**
3. In the performance test report, the permittee must certify that the capture system operated normally during the performance test.² **(40 CFR 63.10898(j))**
4. The permittee shall verify Particulate Matter or Total Metal HAP and Opacity emission rates from FG-MACT-ZZZZZ by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
Metals	40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit 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 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted.² **(R 336.2001(3))**

See Appendix 5

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 to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by 40 CFR 63.10886. These records must be the Safety Data Sheets (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.² **(40 CFR 63.10890)**
2. The permittee shall keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Safety Data Sheets, or other documentation that provide information on the binder or coating materials used.² **(40 CFR 63.10899)**
3. The permittee shall keep records of the metal melt production for each calendar month.² **(40 CFR 63.10899(6))**
4. The permittee shall keep records documenting compliance with scrap material specifications in accordance with 40 CFR 63.10899(b)(1), (2), and (3).² **(40 CFR 63.10899(b)(1), (2) and (3))**
5. The permittee shall keep records demonstrating compliance with the O&M Plan requirements.² **(40 CFR 63.10899(7))**
6. The permittee must install, operate, and maintain each CPMS or other measurement device according to the O&M plan. The permittee must record all information needed to document conformance with the requirements of the O&M plan.² **(40 CFR 63.10897(f))**
7. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee must restore operation of the emissions source and record the corrective action in accordance with 40 CFR 63.10897(g) and 40 CFR 10899(b)(12).² **(40 CFR 63.10897(g), 40 CFR 10899(b)(12))**
8. The permittee shall keep records of periodic inspections as well as any maintenance action on a particulate matter control device for a metal melting furnace. Records shall include, at a minimum, the information specified in 40 CFR 63.1089(b)(13)(i) through (iii).² **(40 CFR 63.10899(b)(13))**
9. The permittee shall keep records of monthly inspections and repairs of equipment important to the performance of the total capture system for the metal melting furnace control equipment.² **(40 CFR 63.10899(b)(10))**
10. The permittee shall keep records of emission information and operating and maintenance information to comply with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZZ. The permittee shall keep all source emissions and operating and maintenance information on file at the facility for a period of at least 5 years and make them available to the Department upon request.² **(40 CFR Part 63, Subparts A & ZZZZZ)**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in 40 CFR 63.10(e). The reports must include, at a minimum, the following information as applicable:² **(40 CFR 63.10899(c))**
 - a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
 - b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
 - c) Summary information on any deviation from the pollution prevention management practices in 40 CFR 63.10885 and 40 CFR 63.10886 and the operation and maintenance requirements 40 CFR 63.10896 and the corrective action taken.
5. If applicable, 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 must include a certification that the facility has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment.² **(40 CFR 63.10899(b)(2)(i))**
6. The permittee must report the results of performance tests within 60 days after the completion of the performance tests. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

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, Subparts A and ZZZZZ for Iron and Steel Foundries by the initial compliance date.² **(40 CFR Part 63, Subparts A and ZZZZZ)**

Footnotes:

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

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

FG-PARTICULATE FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Various particulate sources: EU-SHAKEOUT is subject to CAM for particulate emissions.

Emission Units: EU-POURING, EU-CLEAN, EU-FINISHING, EU-SHAKEOUT, EU-AJAX-FURN, EU-COOLING

POLLUTION CONTROL EQUIPMENT

EU-CLEAN: 50,000 CFM DC#1, 60,000 CFM DC#5

EU-FINISHING: 9,000 CFM DC#2

EU-SHAKEOUT: 50,000 CFM DC#17, 50,000 CFM DC#6, and 80,000 CFM DC#20

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb. per 1,000 lbs. of exhaust gas, on a dry gas basis ²	Hourly	FG-PARTICULATE	SC VI.1 SC VI.2 SC VI.3 SC VI.4	R336.1331(1)(a), Table 31(J)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the processes associated with each emission unit unless the appropriate control equipment for the above listed emission units is installed and operating properly.² **(R 336.1910)**
2. The permittee shall not operate any of the processes unless the approved Preventative Maintenance Plan is implemented and maintained.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain the dust collectors with instrumentation to continuously measure the pressure drop across the dust collectors.² **(R 336.1201(3))**
2. The permittee shall equip and maintain dust collectors DC#1 and DC#6 with a particle sensor device.² **(R 336.1201(3))**

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. Verification of visible emissions from FG-PARTICULATE, for all emission units with control equipment, shall be performed and documented once daily by non-certified visible emissions readings while the emission unit is operating, per Appendix 3.² **(R 336.1201(3))**
2. The permittee shall keep records demonstrating compliance with the Preventative Maintenance Plan requirements. **(R 336.1213(3))**
3. The permittee shall monitor and record the static pressure drop across the dust collectors once per day when the processes are in operation. The gauges for DC#6, DC#17, and DC#20 shall be calibrated according to manufacturer's recommendations.² **(R 336.1201(3), 40 CFR 64.6(c)(1)(i), (ii) & (iii))**
4. The indicator ranges are as following for each dust collector: DC #6: 7-12" WC; DC #20: 3-7" WC; DC #17: 7-12" WC.² **40 CFR 64.6(c)(1)(i), and (ii) & (iii))**
5. The permittee shall monitor and record the particle sensor readings once per day when EU-SHAKEOUT is in operation, only DC#1 and DC#6. The device shall be calibrated according to manufacturer's recommendations. The indicator range is 0-1000 pA.² **(R 336.1201(3), 40 CFR 64.6(c)(1)(i), (ii) & (iii))**
6. An excursion for EU-SHAKEOUT will be a departure from any of the following indicator ranges: Pressure differential across the dust collectors (DC#6: 7-12" WC, DC#20: 3-7" WC, DC#17: 7-12" WC), or for DC#1 and DC#6, a particle sensor pA current (0-1000 pA). **(40 CFR 64.6(c)(2))**
7. Upon detecting an excursion or exceedance, the permittee shall restore operation of EU-SHAKEOUT 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). Any readings that deviate from the established range requires immediate identification and investigation into the causes of the excursion. **(40 CFR 64.7(d))**
8. 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 collect data at all required intervals at all times that EU-SHAKEOUT 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. Data recorded during monitoring malfunctions, repair activities, and QA/QC operations shall not be used for 40 CFR Part 64 compliance. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
9. For EU-SHAKEOUT, the permittee shall, at all times, maintain the monitoring system, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**
10. For EU-SHAKEOUT, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written Quality Improvement Plan (QIP), and any activities undertaken to implement a QIP, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

See Appendix 3

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD.² **(R 336.1201(3)(c), R 336.2001(5))**
5. For EU-SHAKEOUT, 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))**
6. For EU-SHAKEOUT, 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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. For EU-SHAKEOUT, 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 ROP and 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))**
2. For EU-SHAKEOUT, the permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

Footnotes:

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

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

FG-PROJECT-2021

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This flexible group includes all equipment affected by the permitted increase to the facility-wide melt limit. The Actual-to-Projected Actual analysis used to determine a non-significant emission increase exceeded reasonable possibility thresholds.

Emission Unit: EU-POURING, EU-COOLING, EU-SHAKEOUT, EU-WEST-CUPOLA-1, EU-DUCTILE-IRON, EU-BULK-BOND, EU-MP-RBB

POLLUTION CONTROL EQUIPMENT

Bin vent collectors (EU-BULK-BOND), dust collector (EU-DUCTILE-IRON), direct flame afterburner, wet cap, high energy venturi scrubber, high velocity mist eliminator (EU-WEST-CUPOLA-1), dust collectors (EU-MP-RBB).

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.2818, 40 CFR 52.21(r)(6)(c)(iii))**
2. The permittee shall calculate and keep records of the annual emissions of VOC and CO from FG-PROJECT-2021 described in Appendix 4, in tons per calendar year. The permittee shall maintain these calculations and records for each calendar year since the start of FG-PROJECT-2021 until ten (10) years of records are collected.² **(R 336.2818, 40 CFR 52.21(r)(6)(c)(iii))**

See Appendix 4

VII. REPORTING

1. The permittee shall submit records of the annual emissions of VOC and CO from FG-PROJECT-2021 described in Appendix 4, in tons per calendar year, to the AQD Permit Section Supervisor within 60 days following the end of each reporting year if both the following occur:²
 - a) The calendar year actual emissions of VOC and CO exceed the baseline actual emissions (BAE) by a significant amount (as defined in Rule 119); and
 - b) The calendar year actual emissions differ from the pre-construction projection.

The report shall contain the name, address, and telephone number of the facility (major stationary source), the annual emissions as calculated pursuant to SC VI.1, and any other information the owner or operator wishes to include (i.e., an explanation why emissions differ from the pre-construction projection).² **(R 336.2818, 40 CFR 52.21(r)(6)(c)(iii))**

2. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
3. 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))**
4. 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))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
EGLE	Michigan Department of Environment, Great Lakes, and Energy	HAP	Hazardous Air Pollutant
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 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	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	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 Agency	µg	Microgram
VE	Visible Emissions	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

Appendix 2. 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. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-POURING, EU-BULK-BOND, EU-DUCTILE-IRON, EU-NEW-SAND, EU-WEST-CUPOLA-1, EU-MP-RBB, EU-ACS-SAND and FG-PARTICULATE:

The permittee shall conduct and record the following information during non-certified visual observations for opacity:

1. Visible emissions shall be recorded as “observed” or “not observed”.
2. If visible emissions are observed, a description of the color of the emissions.
3. If visible emissions are observed, the duration of the emission incident shall be recorded.
4. If visible emissions are observed, the maintenance supervisor shall be notified immediately.
5. A determination of cause and needed repairs and/or maintenance shall be made within 24 hours and recorded.
6. Repair and/or maintenance operations shall be performed within 48 hours of discovery.
7. Routine maintenance shall be performed according to the manufacturer’s recommendations.

Appendix 4. Recordkeeping

Recordkeeping Provisions for Source Using Actual to Projected-Actual Applicability Test

All information in this Appendix shall be maintained pursuant to R 336.2818 and 40 CFR 52.21(r)(6)(i) for ten years after the emission unit(s) identified in Table C resume normal operations and shall be provided to the Department for the first year and thereafter made available to the Department upon request.

A. Project Description:

Increase to the metal throughput at the pouring lines (EU-POURING) to 129,325 tons per year of iron on a rolling 12-month basis.

B. Applicability Test Description: Actual-to-Projected Actual

The actual-to-projected applicability test as described in the table below was used to demonstrate that the project is a minor modification with respect to Prevention of Significant Deterioration (PSD) regulations.

C. Emissions in PSD Applicability Test

Table C

Emission Unit/ Flexible Group ID	Pollutant	Emissions (tpy)			Reason for Exclusion
		Baseline Actual (tpy)	Projected Actual (tpy)	Excluded (tpy)	
EU-POURING	CO	111.6	167.9	142	Permittee could have accommodated a higher metal throughput rate during the baseline period.
EU-COOLING	CO	17.6	26.5		
EU-SHAKEOUT	CO	15.2	22.9		
EU-WEST-CUPOLA-1	CO	791	944.1		
EU-DUCTILE-IRON	CO	-	-		
EU-BULK-BOND	CO	-	-		
EU-MP-RBB	CO	-	-		
EU-POURING	VOC	-	32	-	-
EU-COOLING	VOC	-	-	-	-
EU-SHAKEOUT	VOC	-	-	-	-
EU-WEST-CUPOLA-1	VOC	-	3.2	-	-
EU-DUCTILE-IRON	VOC	-	-	-	-
EU-BULK-BOND	VOC	-	-	-	-
EU-MP-RBB	VOC	-	-	-	-

Appendix 5. 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. 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-B1909-2019. 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-B1909-2019a is being reissued as Source-Wide PTI No. SWPTI0000429 v5.0.

Permit to Install Number	ROP Revision Application Number / Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
69-21	202200034 / May 3, 2022	Incorporate PTI No. 69-21 which increased the melted metal from 99,000 tons per year to 129,325 tons per year to account for the use of both manual and automated pouring operations. Additionally, EU-POURING was modified to include the manual pouring line which previously operated under an exemption. Although not modified, other emission units and flexible groups were considered affected sources for the modern PSD applicability review and remain unchanged. This application was not required to go through the public participation process.	SOURCE-WIDE EU-POURING EU-BULK-BOND EU-DUCTILE-IRON EU-NEW-SAND EU-WEST-CUPOLA-1 EU-MP-RBB EU-ACS-SAND EU-CLEAN EU-FINISHING EU-SHAKEOUT EU-AJAX-FURN EU-COOLING FG-MACT-ZZZZZ FG-PARTICULATE
69-21A*	202400078 / June 4, 2024	Increase in emission limits for NOx and VOC at the EU-POURING operation. NOx limit increase from 0.01lb/ton of metal to 0.14 lb/ton of metal. VOC limit increase from 0.14 lb/ton of metal to 0.50 lb/ton of metal. Stack testing on 01/17/24 - 01/18/24 showed that emissions from EU-POURING were under the revised permit limits.	EU-POURING EU-COOLING EU-SHAKEOUT EU-WEST-CUPOLA-1 EU-DUCTILE-IRON EU-BULK-BOND EU-MP-RBB

Appendix 7. 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. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, 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.