

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

EFFECTIVE DATE: May 24, 2019

ISSUED TO

**Dock Foundry LLC dba Metal Technologies, Inc. - Three Rivers Gray Iron**

State Registration Number (SRN): B2015

LOCATED AT

429 Fourth Street, Three Rivers, Michigan 49093

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-B2015-2019

Expiration Date: May 24, 2024

Administratively Complete ROP Renewal Application  
Due Between November 24, 2022 and November 24, 2023

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: MI-PTI-B2015-2019

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 Environmental Quality

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Rex Lane, Kalamazoo District Supervisor

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## AUTHORITY AND ENFORCEABILITY

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

This permit does not relieve the permittee from any responsibilities or obligations imposed on the permittee, at this source, under Consent Order AQD No. 2018-20, entered on December 20, 2018, between EGLE and the permittee.

## 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).<sup>2</sup> **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

### Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"<sup>2</sup> **(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.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

### Testing/Sampling

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

## Monitoring/Recordkeeping

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

## Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(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.<sup>2</sup> **(R 336.1912)**

## Permit Shield

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

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

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

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

## Risk Management Plan

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

## Emission Trading

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

### Permit to Install (PTI)

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

#### **Footnotes:**

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

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

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

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

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

### C. EMISSION UNIT 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 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
EUVANETTA	Charge drying system (scrap dryer/preheater).	04-01-1982 10-09-2006	FGMACTEEEEEE FGGRAYIRON FGCAM_UNITS
EUBBFURN1	Brown Boveri, Model IT7P induction melting furnace; includes furnace charging, melting and tapping.	07-05-1988 06-15-1995	FGMACTEEEEEE FGGRAYIRON FGCAM_UNITS
EUBBFURN2	Brown Boveri, Model IT7P induction melting furnace; includes furnace charging, melting and tapping.	07-05-1988 06-15-1995	FGMACTEEEEEE FGGRAYIRON FGCAM_UNITS
EUBBFURN3	Brown Boveri, Model IT7P induction melting furnace; includes furnace charging, melting and tapping.	07-05-1988 06-15-1995	FGMACTEEEEEE FGGRAYIRON FGCAM_UNITS
EUBBFURN4	Brown Boveri, Model IT7P induction melting furnace; includes furnace charging, melting and tapping.	07-05-1988 06-15-1995	FGMACTEEEEEE FGGRAYIRON FGCAM_UNITS
EUMOLDCOOLING1	Mold cooling process.	04-01-1982 no modifications	FGMOLDCOOLING
EUMOLDCOOLING2	Mold cooling process.	04-01-1982 no modifications	FGMOLDCOOLING
EUMOLDCOOLING3	Mold cooling process.	04-01-1982 no modifications	FGMOLDCOOLING
EUMOLDCOOLING4	Mold cooling process.	04-01-1982 no modifications	FGMOLDCOOLING
EUSHAKEOUT	Shakeout machine and associated equipment that separate iron castings to casting transfer, sand to the sand system, and sprue to the scrap bay. Controlled by the 2014 North Dostar Baghouse (PTI No. 137-14).	06-06-1992 01-05-1994 12-18-2007 11-27-2014	FGCAM_UNITS
EUSAND1	Conveyors, shot sand reclaim drum magnet, elevators, screens, silos, hoppers, and mullers that transfer sand from the shakeout process to the mold machines.	12-22-1993 01-05-1994	FGGEWFULLER FGCAM_UNITS
EUSAND2	Conveyors, elevators, screens, silos, and hoppers that transfer sand from the shakeout process to the mold machines.	08-01-1993 01-01-1994 10-09-2006	FGWDUSTAR FGCAM_UNITS

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCASTTRANSFER1	Accumulates and transfers castings to the cleaning stations.	12-22-1993 01-05-1994	FGEWFULLER FGCAM_UNITS
EUCASTTRANSFER2	Accumulates and transfers castings to the cleaning stations.	08-01-1993 01-01-1994 10-09-2006	FGWDUSTAR FGCAM_UNITS
EUBLAST1	Iron castings are cleaned in a wheelabrator shotblasting machine.	01-02-1986 04-02-1986 10-09-2006	FGCLEANING FGCAM_UNITS
EUBLAST2	Iron castings are cleaned in a wheelabrator shotblasting machine.	01-02-1986 04-02-1986 10-09-2006	FGCLEANING FGCAM_UNITS
EUBLAST3	Iron castings are cleaned in a wheelabrator shotblasting machine.	01-02-1986 04-02-1986 10-09-2006	FGCLEANING FGCAM_UNITS
EUBLAST4	Iron castings are cleaned in a wheelabrator shotblasting machine.	04-01-2002 10-09-2006	FGCLEANING FGCAM_UNITS
EUEMERGEN	An existing diesel 250HP John Deere engine that powers a 150KW Kohler generator used for emergency power only.	03-15-1998	NA

**EUSHAKEOUT  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

Shakeout machine and associated equipment that separate iron castings to casting transfer, sand to the sand system, and sprue to the scrap bay. Controlled by the 2014 North Dustar Baghouse (PTI No. 137-14).

**Flexible Group ID:** FGCAM\_UNITS

**POLLUTION CONTROL EQUIPMENT**

2014 North Dustar baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.04 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis <sup>2</sup>	Hourly	EUSHAKEOUT	SC V.1	R 336.1331(1)(c)
2. Particulate	11.9 pounds per hour <sup>2</sup>	Hourly	EUSHAKEOUT	SC V.1	R 336.1331(1)(c)
3. Opacity	5% opacity <sup>2</sup>	6-minute average	Stack listed in SC VIII.1	SC VI.1	R 336.1301(1)(c)

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

1. The permittee shall not operate EUSHAKEOUT unless the baghouse is installed, maintained, and operated in a satisfactory manner.<sup>2</sup> (R 336.1205, R 336.1331, R 336.1910, R 336.2803, R 336.2804)
2. The permittee shall equip and maintain the baghouse with a gauge which measures the pressure drop across the baghouse.<sup>2</sup> (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))

- 1. The permittee shall verify PM, PM10 and PM2.5 emission rates from EUSHAKEOUT 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
PM10/PM2.5	40 CFR Part 51, Appendix M

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 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)

- 2. The permittee shall verify the PM, PM10 and PM2.5 emission rates from EUSHAKEOUT, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
- 3. 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. (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. Daily check for visible emissions. The results shall be recorded in the maintenance log. (R 336.1213(3)(b)(ii))
- 2. The baghouse pressure differential shall be recorded at least once each day in the maintenance log. (R 336.1213(3)(b)(ii))
- 3. The permittee shall implement and maintain a preventative maintenance program for the baghouse in accordance with manufacturer recommendations. Baghouse preventative maintenance activities shall be recorded in the maintenance log. (R 336.1213(3)(b)(iii))
- 4. The permittee shall perform quarterly inspection of the baghouse with a fluorescent detection device and record results in the maintenance log. (R 336.1213(3)(b)(ii))
- 5. The permittee shall keep the following information for 2014 North Dustar baghouse/EUSHAKEOUT on a monthly and calendar year basis:
  - a. Hours of operation.
  - b. Calculations of the emissions of PM, PM 10, and PM 2.5 from EUSHAKEOUT determining the emission rate in tons per calendar month and tons per 12 month rolling time period.

These records are required for a minimum period of 10 years after the installation of the 2014 North Dustar baghouse. The permittee shall keep the records on file at the facility, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request.<sup>2</sup> (R 336.2802, R 336.2818(3)(c))

See Appendices 3 and 9

**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. **(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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV2014NDUSTAR	60 <sup>2</sup>	48 <sup>2</sup>	<b>R 336.1201(3)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

<h2 style="margin: 0;">EUEMERGEN EMISSION UNIT CONDITIONS</h2>
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**DESCRIPTION**

An existing diesel 250HP John Deere engine that powers a 150KW Kohler generator used for emergency power only.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. The EUEMERGEN shall be installed, maintained, and operated in a satisfactory manner. A list of recommended work practice standards as specified in 40 CFR 63.6602 and Table 2c, Item 1 or the permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. The following are the recommended work practices specified in 40 CFR Part 63, Subpart ZZZZ, Table 2c:
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.3.
  - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first.
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If EUEMERGEN is being operated during an emergency and it is not possible to shut down the engine to perform the work practice standards on the schedule required, the work practice standard can be delayed until the emergency is over. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law or which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c, Item 1)**

2. The permittee shall operate EUEMERGEN in compliance with the emission limitations and operating limitations in this subpart. EUEMERGEN must be operated and maintained at any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
3. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency as oil changes are required. The oil analysis program must analyze the parameters and keep records as required in 40 CFR 63.6625(i). **(40 CFR 63.6625(i))**
4. The permittee shall maintain and operate EUEMERGEN per the manufacturer's emission related written instructions or develop a maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6, Item 9)**

5. The permittee shall minimize the time spent at idle during startup and minimize the startup time of EUEMERGEN to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
6. The permittee shall not exceed 100 hours per year for maintenance checks and readiness testing. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. **(40 CFR 63.6640(f)(ii))**
7. The permittee may operate EUEMERGEN for non-emergency situations for up to 50 hours per year as allowed in 40 CFR 63.6640 (f)(iii). **(40 CFR 63.6640(f)(iii))**

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

1. The permittee shall equip and maintain with a non-resettable hour meter to track the number of hours EUEMERGEN operates. **(40 CFR 63.6625(f))**

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

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

1. If using an oil analysis program, testing required, analysis of Total Base Number, Viscosity, and percent water. **(40 CFR 63.6625(i))**

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

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

1. For EUEMERGEN, the permittee shall keep in a satisfactory manner, records of the occurrence and duration of each malfunction of operation or the air pollution control monitoring equipment. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(2), 40 CFR 63.6660)**
2. For EUEMERGEN, the permittee shall keep in a satisfactory manner, records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a)(5), 40 CFR 63.6660)**
3. For EUEMERGEN, the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with operating limitations in SC III.1. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660)**
4. For EUEMERGEN, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
5. For EUEMERGEN, the permittee shall keep in a satisfactory manner, records of hours of operation recorded through the non-resettable hour meter. The permittee shall document how many hours were spent during emergency operation and how many hours were spent during non-emergency operation. If the engines were used for demand response operation, the permittee shall keep records of the notification of the emergency situation and the time the engine was operated as part of demand response. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(f), 40 CFR 63.6660)**

## **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)**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines. **(40 CFR 63.6595(a)(1), 40 CFR Part 63, Subparts A and ZZZZ)**

### **Footnotes:**

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

<sup>2</sup>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 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
FGGRAYIRON	Metal preheating, charge unloading, melting, and pouring.	EUVANETTA EUBBFURN1 EUBBFURN2 EUBBFURN3 EUBBFURN4
FGMOLDCOOLING	Mold cooling lines.	EUMOLDCOOLING1 EUMOLDCOOLING2 EUMOLDCOOLING3 EUMOLDCOOLING4
FGEWFULLER	Casting accumulator, transfer, shot sand reclaim drum magnet, sand screens, and separators.	EUSAND1 EUCASTTRANSFER1
FGWDUSTAR	Sand system conveyors, mullers, didion and flat deck, and vibratory shakeout unit for sand separation.	EUSAND2 EUCASTTRANSFER2
FGCLEANING	Iron castings are cleaned in shotblast machines.	EUBLAST1 EUBLAST2 EUBLAST3 EUBLAST4
FGCAM_UNITS	This flexible group consists of emission units that use a control device to achieve compliance with a federally enforceable emission limitation or standard for particulate matter. The emission units have potential pre-control emissions, which are over 100 percent of the major source threshold amount (at a level considered to be major under the ROP program) for particulate matter.	EUSHAKEOUT EUSAND1 EUCASTTRANSFER1 EUVANETTA EUBBFURN1 EUBBFURN2 EUBBFURN3 EUBBFURN4 EUSAND2 EUCASTTRANSFER2 EUBLAST1 EUBLAST2 EUBLAST3 EUBLAST4

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGMACTEEEEEE	The affected source is a new or existing iron and steel foundry, that is (or is part of) a major source of HAP emissions. An existing affected source is a source that commences construction or reconstruction before December 23, 2002. A new affected source is a source that commences construction or reconstruction on or after December 23, 2002. The regulations cover emissions from metal melting furnaces, scrap preheaters, new pouring areas, pouring stations, new automated conveyor and new pallet cooling lines, new automated shakeout lines, mold and core making lines, and fugitive emissions from foundry operations.	EUVANETTA EUBBFURN1 EUBBFURN2 EUBBFURN3 EUBBFURN4

**FGGRAYIRON  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Metal preheating, charge unloading, melting and pouring.

**Emission Units:** EUVANETTA, EUBBFURN1, EUBBFURN2, EUBBFURN3, EUBBFURN4

**POLLUTION CONTROL EQUIPMENT**

Pulse jet baghouse (South Fuller), reverse air (small Dustar) baghouse and South ETA pulse jet baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.01 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis <sup>2</sup>	Hourly	FGGRAYIRON	SC V.1	R 336.1331(1)(c) R 336.1205
2. Particulate	1.7 pounds per hour <sup>2</sup>	Hourly	FGGRAYIRON	SC V.1	R 336.1331(1)(c)
3. Particulate	0.10 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis	Hourly	South ETA pulse jet baghouse	SC V.1	R 336.1331(1)(a) Table 31 (J)

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Iron	219,000 tons per year <sup>2</sup>	12-month rolling time period, as determined at the end of each calendar month	FGGRAYIRON	SC VI.1	R 336.1201(3)

**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 emission rates from FGGRAYIRON and South ETA baghouse by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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 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)**
2. The permittee shall verify the particulate emission rates from FGGRAYIRON and South ETA baghouse, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. 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. **(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 maintain a written record of the amount of iron processed through FGGRAYIRON on a monthly basis.<sup>2</sup> **(R 336.1201(3))**
2. Daily check for visible emissions. The results shall be recorded in the maintenance log. **(R 336.1213(3)(a)(ii))**
3. The permittee shall equip the baghouse dust collector system that serves FGGRAYIRON with a static pressure drop monitoring device and be operated to comply with permit allowable PM-10 emission.<sup>2</sup> **(R 336.1201(3))**
4. The permittee shall maintain the static pressure drop across the baghouse according to manufacturer specifications and record results in the maintenance log.<sup>2</sup> **(R 336.1201(3))**
5. The permittee shall perform quarterly inspection of the baghouse with a fluorescent detection device and record results in the maintenance log. **(R 336.1213(3)(a)(ii))**
6. The permittee shall implement and maintain a preventative maintenance program for the South ETA baghouse in accordance with manufacturer recommendations. Baghouse preventative maintenance activities shall be recorded in the maintenance log. **(R 336.1213(3)(b)(iii))**

**See Appendices 3 and 9**

## **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. **(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:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter / Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV84-951	52 <sup>2</sup>	48 <sup>2</sup>	<b>R 336.1201(3)</b>
2. SVSouthETA	62	60	<b>R 336.1213(2)</b>

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**FGMOLDCOOLING  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Mold cooling lines.

**Emission Units:** EUMOLDCOOLING1, EUMOLDCOOLING2, EUMOLDCOOLING3, EUMOLDCOOLING4

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.10 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis.	Hourly	FGMOLDCOOLING	SC V.1	<b>R336.1331(1)(a) Table 31 (J)</b>

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

NA

**V. TESTING/SAMPLING**

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

1. The permittee shall verify particulate emission rates from FGMOLDCOOLING by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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 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)**
2. The permittee shall verify the particulate emission rates from FGMOLDCOOLING, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. 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. **(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. Daily non-certified visible emission checks. The results shall be recorded in the maintenance log. (R 336.1213(3)(a)(ii))

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. (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. SVCOOLING1	27 <sup>2</sup>	48.25 <sup>2</sup>	R 336.1201(3)
2. SVCOOLING2	27 <sup>2</sup>	49.17 <sup>2</sup>	R 336.1201(3)
3. SVCOOLING3	27 <sup>2</sup>	47.83 <sup>2</sup>	R 336.1201(3)
4. SVCOOLING4	27 <sup>2</sup>	47.42 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**FGEWFULLER  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Casting accumulator, transfer, shot sand reclaim drum magnet, sand screens and separators.

**Emission Units:** EUSAND1, EUCASTTRANSFER1

**POLLUTION CONTROL EQUIPMENT**

Baghouses: East and West Fuller

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.04 pounds per 1,000 pounds of exhaust gas, calculated on a dry gas basis <sup>2</sup>	Hourly	FGEWFULLER	SC V.1	<b>R336.1331(1)(c) R 336.1205</b>
2. Particulate	15.8 pounds per hour <sup>2</sup>	Hourly	FGEWFULLER	SC V.1	<b>R336.1331(1)(c)</b>
3. Opacity	5 percent <sup>2</sup>	6-minute average	FGEWFULLER	SC VI.1	<b>R336.1301(1)(c)</b>

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

1. The permittee shall equip and maintain each baghouse with a gauge that measures the pressure drop across the baghouse.<sup>2</sup> **(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))**

1. The permittee shall verify particulate emission rates from FGEWFULLER by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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 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)**

2. The permittee shall verify the particulate emission rates from FGEWFULLER, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. 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. **(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. Daily check for visible emissions. The results shall be recorded in the maintenance log. **(R 336.1213(3)(a)(ii))**
2. The baghouse pressure differential shall be recorded at least once each day in the maintenance log. **(R 336.213(3)(a)(ii))**
3. The permittee shall implement and maintain a preventative maintenance program for the baghouse in accordance with manufacturer recommendations. Baghouse preventative maintenance activities shall be recorded in the maintenance log. **(R 336.1213(3)(a)(iii))**
4. The permittee shall perform quarterly inspection of the baghouse with a fluorescent detection device and record results in the maintenance log. **(R 336.1213(3)(a)(ii))**

See Appendices 3 and 9

**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. **(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. SV1152-913	78 <sup>2</sup>	40.1 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**FGWDUSTAR  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Sand system conveyors, mullers, didion and flat deck, and vibratory shakeout unit for sand separation.

**Emission Units:** EUSAND2, EUCASTTRANSFER2

**POLLUTION CONTROL EQUIPMENT**

Reverse air west Duster baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	13.5 pounds per hour. <sup>2</sup>	Hourly	FGWDUSTAR	SC V.1	<b>R336.1331(1)(c)</b>
2. Particulate	0.02 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis. <sup>2</sup>	Hourly	FGWDUSTAR	SC V.1	<b>R336.1331(1)(c)</b>
3. Opacity	5% opacity <sup>2</sup>	6-minute average	FGWDUSTAR	SC VI.1	<b>R336.1301(1)(c)</b>

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

1. The permittee shall equip and maintain the baghouse with a differential pressure gauge. **(R 336.1301(1)(c))**

**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 emission rates from FGWDUSTAR by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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 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)**
2. The permittee shall verify the particulate emission rates from FGWDUSTAR, at a minimum, every five years from the date of the last test. **(R 336.1213(3), 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 of the time and place before performance tests are 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))**

- Daily checks for visible emissions. The results shall be reported in the maintenance log. **(R 336.1213(3)(a)(ii))**
- The baghouse pressure differential shall be recorded at least once each day in the maintenance log. **R 336.1213(3)(a)(ii)**
- The permittee shall implement and maintain a preventative maintenance program for the baghouse in accordance with manufacturer recommendations. Baghouse preventative maintenance activities shall be recorded in the maintenance log. **(R 336.1213(3)(a)(iii))**
- The permittee shall perform quarterly inspection of the baghouse with a fluorescent detection device and record results in the maintenance log. **(R 336.1213(3)(a)(ii))**

See Appendices 3 and 9

**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))**
- 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. SV565-932	78 <sup>2</sup>	62 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

**FGCLEANING  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Iron castings are cleaned in shotblast machines.

**Emission Units:** EUBLAST1, EUBLAST2, EUBLAST3, EUBLAST4

**POLLUTION CONTROL EQUIPMENT**

Pulse jet baghouse (North Fuller)

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Particulate	0.02 pounds per 1,000 pounds exhaust gas, calculated on a dry gas basis <sup>2</sup>	Hourly	FGCLEANING	SC V.1	<b>R 336.1331(1)(c) R 336.1205</b>

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

NA

**V. TESTING/SAMPLING**

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

1. The permittee shall verify particulate emission rates from FGCLEANING by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 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 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)**
2. The permittee shall verify the particulate emission rates from FGCLEANING, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. 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. **(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. Daily check for visible emissions. The results shall be recorded in the maintenance log. (R 336.1213(3)(a)(ii))
2. The baghouse pressure differential shall be recorded at least once a day in the maintenance log. (R 336.1213(3)(a)(ii))
3. The permittee shall implement and maintain a preventative maintenance program for the baghouse in accordance with manufacturer recommendations. Baghouse preventative maintenance activities shall be recorded in the maintenance log. (R 336.1213(3)(a)(iii))
4. The permittee shall perform quarterly inspection of the baghouse with a fluorescent detection device and record results in the maintenance log. (R 336.1213(3)(a)(ii))

See Appendices 3 and 9

**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. (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. SV565-932	78 <sup>2</sup>	62 <sup>2</sup>	R 336.1201(3)

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

## FGCAM\_UNITS

### FLEXIBLE GROUP CONDITIONS

#### **DESCRIPTION**

This flexible group consists of emission units that use a control device to achieve compliance with a federally enforceable emission limitation or standard for particulate matter. The emission units have potential pre-control emissions, which are over 100 percent of the major source threshold amount (at a level considered to be major under the ROP program) for particulate matter.

**Emission Units:** EUSHAKEOUT, EUSAND1, EUCASTTRANSFER1, EUVANETTA, EUBBFURN1, EUBBFURN2, EUBBFURN3, EUBBFURN4, EUSAND2, EUCASTTRANSFER2, EUBLAST1, EUBLAST2, EUBLAST3, EUBLAST4

#### **POLLUTION CONTROL EQUIPMENT**

2014 North Duster baghouse; East/West Fuller baghouse; pulse jet baghouse (South Fuller) and reverse air (Small Duster) baghouse; reverse air west Duster baghouse; pulse jet baghouse (North Fuller)

#### **I. EMISSION LIMIT(S)**

NA

#### **II. MATERIAL LIMIT(S)**

NA

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

1. If visible emissions are observed, the permittee will implement the malfunction abatement plan immediately. **(40 CFR 64.7(d))**

See Appendix 9

#### **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 will perform a non-certified 6-minute visible emission check daily when EUSHAKEOUT, EUSAND1, EUCASTTRANSFER1, EUVANETTA, EUBBFURN1, EUBBFURN2, EUBBFURN3, EUBBFURN4, EUSAND2, EUCASTTRANSFER2, EUBLAST1, EUBLAST2, EUBLAST3, and EUBLAST4 are operating. The visible checks will be documented and recorded by the observer. The indicator is the presence of visible emissions. **(40 CFR 64.6(c)(1)(i and ii))**
2. The permittee shall measure the pressure drop and take a daily reading as an indicator of proper operation when the dust collector for EUSHAKEOUT, EUSAND1, EUCASTTRANSFER1, EUVANETTA, EUBBFURN1, EUBBFURN2, EUBBFURN3, EUBBFURN4, EUSAND2, EUCASTTRANSFER2, EUBLAST1, EUBLAST2,

EUBLAST3, and EUBLAST4 is operating. The pressure drop will be documented and recorded by the observer. The indicator is a pressure drop outside of the normal pressure drop operating range for the individual baghouse. **(40 CFR 64.6(c)(1)(i and ii))**

3. An excursion is a departure from the indicator range listed in the facility's CAM plan. **(40 CFR 64.6(c)(2))**
4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, in frequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
5. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
6. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

**See Appendix 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 report required in Special Condition VII.2 above shall include a summary of information on the number, duration and cause (including unknown cause, if applicable) of exceedances and excursions and the corrective actions taken. If there were no excursions in the reporting period, this report shall include a statement that there were no excursions. **(40 CFR 64.9, R 336.1213(3))**

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

**FGMACTEEEEEE  
 FLEXIBLE UNIT CONDITIONS**

**DESCRIPTION**

The affected source is a new or existing iron and steel foundry, that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. An existing affected source is a source that commences construction or reconstruction before December 23, 2002. A new affected source is a source that commences construction or reconstruction on or after December 23, 2002. The regulations cover emissions from metal melting furnaces, scrap preheaters, new pouring areas, pouring stations, new automated conveyor and new pallet cooling lines, new automated shakeout lines, mold and core making lines, and fugitive emissions from foundry operations.

**Emission Units:** EUVANETTA, EUBBFURN1, EUBBFURN2, EUBBFURN3, EUBBFURN4

**POLLUTION CONTROL EQUIPMENT**

Pulse jet baghouse (South Fuller) and reverse air (small Dostar) baghouse

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity (fugitive)	20 percent 6-min average, except for one 6-min average per hour that does not exceed 27 percent	6-minute average	Each Building or Structure Housing any Iron or Steel Foundry Emission Source at FG-MACT EEEEE- FOUNDRIES	SC III.1, III.3, III.4, V.1, & VI.1 – VI.6	40 CFR 63.7690(a)(7)
2. PM  ---OR---  Total Metal HAP	0.005 gr/dscf  ---OR---  0.0004 gr/dscf	Hourly	Existing Electric Induction Melting and Existing Scrap Preheater	SC III.6, V.2, V.3, VI.1, VI.3 & VI.5	40 CFR 63.7690(a)(1)(i) or (ii)

**II. MATERIAL LIMIT(S)**

- As an alternative to meeting the VOHAP limit in 40 CFR 63.7690(a)(9) for a new or existing scrap preheater, the permittee shall charge only material to the scrap preheater that is subject to and in compliance with the scrap certification requirement of 40 CFR 63.7700(b). **(40 CFR 63.7700(e)(2))**

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

- The permittee shall submit to the AQD District Supervisor, for review and approval, an operation and maintenance (O&M) plan for each capture and control system and control device for an emission unit subject to an emission limit as described in 40 CFR 63.7710. The plan shall include, but is not limited to, the following:
  - Monthly inspections of the equipment that is important to the performance of the total capture system. **(40 CFR 63.7710(b)(1))**
  - Preventative maintenance plan for each control device, including a schedule. **(40 CFR 63.7710(b)(3))**
  - A site-specific monitoring plan for each bag leak detection system. **(40 CFR 63.7710(b)(4))**
  - Corrective action plan for each baghouse. **(40 CFR 63.7710(b)(5))**
  - Procedures for igniting gases from mold vents. **(40 CFR 63.7710(b)(6))**

The permittee shall maintain and implement the approved O&M plans at all times. **(40 CFR 63.7710, 40 CFR 63.7745)**

2. For each capture system, the permittee shall establish site-specific operating limits in the O&M plans according to the procedures specified in 40 CFR 63.7733. **(40 CFR 63.7733)**
3. The permittee shall comply with the emission limits, work practice standards, and operation and maintenance requirements at all times, except during periods of startup, shutdown, or malfunction. **(40 CFR 63.7720(a))**
4. The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3). This plan must address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The permittee shall operate in accordance with the SSMP when applicable. **(40 CFR 63.7720(c), 40 CFR 63.6(e)(3))**
5. For each segregated scrap storage area, bin or pile, the permittee shall prepare and operate at all times according to a written certification that the facility purchases and uses only charge material that does not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics or organic liquids. **(40 CFR 63.7700(a), 40 CFR 63.7700(b))**
6. As an alternative to meeting the VOHAP limit in 40 CFR 63.7690(a)(9) for an existing preheater, the permittee shall install, operate and maintain a gas-fired preheater where the flame directly contacts the scrap charged or the permittee or the permittee must charge only material that is subject to and in compliance with the scrap certification requirement in 40 CFR 63.7700(b). **(40 CFR 63.7700(e)(1), 40 CFR 63.7700(e)(2), 40 CFR 7744(c))**

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

NA

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

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.7753)**

1. The permittee shall conduct a performance test to demonstrate compliance with the opacity limit in 40 CFR 63.7690(a)(7), following the test methods and procedures in 40 CFR 63.7732(d). Subsequent compliance testing shall be conducted no less frequently than every 6 months. **(40 CFR 63.7730(a), 40 CFR 63.7731(b))**
2. The permittee shall conduct performance testing to demonstrate compliance with applicable PM or Total Metal HAP emission rates from FGMACTEEEEEE according to the requirements in 40 CFR 63.7(e)(1), following the test methods and procedures in 40 CFR 63.7732(b), (c), (e), (f), (g) and (h). No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 63.7730(a))**
3. The permittee shall conduct subsequent compliance testing to demonstrate compliance with all applicable emission limits, no less frequently than every 5 years. This requirement does not apply if a CEMS is used to demonstrate continuous compliance. **(40 CFR 63.7731(a))**

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

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii), 40 CFR 63.7753)**

1. The permittee shall monitor the relative change in PM loading using a bag leak detection system for any baghouse used to meet PM or Total Metal HAP emission limits. **(40 CFR 63.7740(b))**
2. If using the alternative to meeting the VOHAP limit in 40 CFR 63.7690(a)(9) for an existing scrap preheater, the permittee shall keep records to document that the preheater charges only material that is subject to and in compliance with the scrap certification requirements. **(40 CFR 63.7744(c))**

3. For each baghouse that is applied to meet any PM or Total Metal HAP emission limit, the permittee shall install, operate, and maintain a bag leak detection system according to the requirements in 40 CFR 63.7741(b) and conduct inspections according to the requirements specified in 40 CFR 63.7740(b)(1) through (8). **(40 CFR 63.7740(b), 40 CFR 63.7741(b))**
4. The permittee shall monitor and collect data to demonstrate continuous compliance in accordance with 40 CFR 63.7742. **(40 CFR 63.7742)**
5. The permittee shall demonstrate continuous compliance with all applicable emission limitations in accordance with 40 CFR 63.7743. **(40 CFR 63.7743)**
6. The permittee shall maintain records that document continuous compliance with the requirements of 40 CFR 63.7700(b) or (c) as specified in 40 CFR 63.7744(a). **(40 CFR 63.7744)**

**See Appendices 4 and 7**

## **VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall report each instance in which each emission limitation, each work practice standard, and each operation and maintenance requirement was not met, in accordance with the requirements of 40 CFR 63.7751. **(40 CFR 63.7746, 40 CFR 63.7751)**
5. The permittee shall submit applicable notifications specified in 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), 40 CFR 63.8(f)(4) through (6), and 40 CFR 63.9(b) through (h) for an initial notification, a notification of intent to conduct a performance test, and a notification of compliance status as specified in 40 CFR 63.7750. **(40 CFR 63.7750)**
6. The permittee shall submit all semiannual compliance reports and semiannual reports of monitoring and deviations from any emissions limitation or operation and maintenance requirement as required by 40 CFR 63.7751(a), (b), and (d). **(40 CFR 63.7751 (a), (b), and (d))**
7. If a startup, shutdown, or malfunction occurs during the semiannual reporting period, that is not consistent with the SSMP, the permittee shall submit an immediate SSM report according to the requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.10(d)(5)(ii), 40 CFR 63.7751(c))**

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

**Footnotes:**

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

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

## **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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>x</sub>	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 <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

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

## **Appendix 2. 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 EUSHAKEOUT, FGGRAYIRON, FGMOLDCOOLING, FGCLEANING, FGWDUSTAR and FGCAM\_UNITS.

1. Visible emissions shall be observed daily during daylight hours while the emission unit is operating. Visible emissions shall be recorded as “observed” or “not observed”. The following shall also be recorded in the maintenance log:
  - a. The color of the emission.
  - b. Whether the emissions are representative of normal operations.
  - c. If the emissions are abnormal, the total duration of the incident.
2. If abnormal visible emissions are observed the maintenance supervisor or alternate shall be notified within 2 hours of discovery.
3. An evaluation of the fabric filter collector and a determination of necessary maintenance and/or repairs shall be made within 4 hours of discovery. Maintenance and repair operations shall be recorded. Repairs shall be made within 8 hours of discovery.
4. After repairs and/or startup, another visible emission check shall be performed.
5. Routine maintenance on the fabric filter collector shall be performed according to the manufacturer’s or facility’s specification.

## **Appendix 4. Recordkeeping**

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

## **Appendix 5. 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-B2015-2013. 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-B2015-2013c is being reissued as Source-Wide PTI No. MI-PTI-B2015-2019.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201800127*	South ETA baghouse was installed in 2018 under Rule 336.1285(2)(f) to capture and control fugitive emissions from the melt deck and scrap area.	FGGRAYIRON
137-14	201400195	Incorporate PTI No. 137-14. PTI No. 137-14 is for replacement of a dust collector for EUSHAKEOUT and mold making machines and automated mold conveyors.	EUSHAKEOUT FGCAM_UNITS
NA	201400102	Fix typographical error in FGGRAYIRON, SC III.1; and rule citation. Condition was moved to FGMACTEEEEEE, SC III.6 during ROP renewal technical review.	FGGRAYIRON
NA	201300183	Revision to language for stack testing condition for FGCOREMAKE to require testing within 180 days of start-up instead of once during the term of the ROP. FGCOREMAKE equipment may not be brought back into use, but Facility wishes to maintain operational flexibility.	FGCOREMAKE

## 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 the 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.

## Appendix 9. Preventative Maintenance

The permittee shall maintain an acceptable preventative maintenance plan and submit modifications upon request of the AQD District Supervisor.