

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

EFFECTIVE DATE: April 10, 2018
REVISION DATE: December 4, 2019

ISSUED TO

Huron Casting Inc

and

Blue Diamond Steel Casting LLC

State Registration Number (B7013):

LOCATED AT

7050 Hartley Street, Pigeon, Michigan 48755

and

125 Sturm Road, Pigeon, Michigan 48755

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B7013-2018a

Expiration Date: April 10, 2023

Administratively Complete ROP Renewal Application Due Between
October 10, 2021 and October 10, 2022

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-B7013-2018a

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

Michigan Department of Environment, Great Lakes, and Energy

Chris Hare, Bay City 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/Judgement Number 4-2017, entered on April 20, 2017, between the EGLE and the permittee.

SECTION 1 – HURON CASTING INC

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit To Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Some emission units controlled with baghouses

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	59.6 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
2. PM2.5	11.9 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
3. VOC	50 lb/ton binder ²	monthly average	All emission units located at the facility	SC VI.3 and VI.4	R 336.2810 Consent Order AQD No. 4-2017
4. VOC	98.0 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
5. Individual HAPs	8.9 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
6. Aggregate HAPs	22.4 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
7. CO	4.8 lb/ton melt ²	monthly average	All emission limits located at the facility	SC VI.3 and VI.4	R 336.2810 Consent Order AQD No. 4-2017
8. CO	345.6 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission limits located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

1. The permittee shall not melt more than 144,000 tons of metal per year based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall not melt more than 72,000 tons per year of steel at Huron Casting, Inc. based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
3. The permittee shall not melt more than 72,000 tons per year of steel at Blue Diamond Steel Casting based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
4. The permittee shall not use more than 1,026 MMcf per year of natural gas, based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
5. The permittee shall not process a combined total of more than 3,870 tons of binder per year in FG-MOLDLINE, FG-BDSV03, FG-BDSV04, and FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each emission unit that is subject to an emission limit more than 7,000 hours per year based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall not operate any of the 29 baghouses at the facility unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted to the AQD District Supervisor within 180 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of metal melted in tons per month, as required by SC II.1, II.2, and II.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205, R 336.1220, R 336.1225, Consent Order AQD No. 4-2017)**
3. The permittee shall have an approved spreadsheet by the AQD District Supervisor to calculate all emissions as specified in SC I.1 through I.8, based on material usage rates and emission factors.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM10, PM2.5, VOCs, individual and aggregate HAPs, and CO emission calculation records, as required by SC I.1, I.2, I.3, I.4, I.5, I.6, I.7, and I.8. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period operating hour records for each emission unit, that is subject to an emission limit, as required by SC III.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of natural gas usage rates, as required by SC II.4. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of binder usage rates, as required by SC II.5. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

Footnotes:

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

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

C. EMISSION UNIT CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-01	A-line east pouring line, Mag drum and shot air wash controlled by Baghouse #774 (20,000 dry standard cubic feet per minute (dscfm) reverse air type). Stack SV-01	01/28/1977	NA
EU-02	Vibramill, A-line Shake-out sand elevator and conveyor, A-line shot leg controlled by Baghouse #788 (20,000 dscfm pulse jet type). Stack SV-02.	01/28/1977	NA
EU-POURINGA	Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type). Exhausts to the in-plant environment.	01/28/1977	FG-POUR
EU-03A	A-line west end pouring line, A-line cooling room controlled by Baghouse #789 (32,000 dscfm shaker type). Stack SV-03.	01/28/1977	FG-MOLDLINE
EU-03B	West end pouring line B, B-line cooling room controlled by Baghouse #792 (47,000 dscfm shaker type). Stack SV-03.	05/08/1997	FG-MOLDLINE
EU-TORCHES1-18	Cutting torches #1-18. No Control. Stack SV-04	06/05/1997	NA
EU-05	Vibramill, Shot Air Wash, B-line east end pouring line controlled by Baghouse #791 (42,000 dscfm reverse air type). Stack SV-05.	06/12/1997	NA
EU-06	Sand coating/handling and reclaim operations controlled by Baghouse #787 (20,000 dscfm reverse air type). Stack SV-06.	12/01/1985	NA
EU-07	Sand coating/handling and reclaim operations, Vibramill, controlled by Baghouse #484 and Baghouse #1001 (total air flow 20,000 dscfm reverse air type). Stack SV-07.	Sandcoater installation: 08/23/2012 Reclaim operations/Calcliner installation: 12/01/1995	NA
EU-08	Cut-off saws #1-9, Grinders #1-13, 7 to 12 Hand grinders, 7 welders controlled by Baghouse #616 (40,000 dscfm, reverse air type). Exhausts to the in-plant environment.	12/09/1998	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-09	Shot blast equipment controlled by Baghouse #618 (25,000 dscfm reverse air type). Stack SV-09.	04/17/2000	NA
EU-10A	Sand leg and mag drum, Shot legs, Vibratory mold dumper/conveyor controlled by Baghouse #864 (32,000 dscfm dust collector) and Baghouse #776 (24,000 dscfm dust collector). Both reverse air. Stack SV-10A.	06/10/1997	NA
EU-POURINGB	Three electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type). Exhausts to the in-plant environment.	05/12/1997	FG-POUR
EU-MOLDLINE-A	Molding machines #1-4. No control. Stack SV-03.	01/18/1979	FG-MOLDLINE
EU-MOLDLINE-B	Molding machines #5-16. No control. Stack SV-03.	11/07/1990	FG-MOLDLINE
EU-MOLDLINE-C	Molding machines #17-26. No control. 20 to 25 core machines. Stack SV-03.	08/21/2006	FG-MOLDLINE
EU-TORCHES19-22	Cutting torches #19-22. No control. Stack SV-03.	01/17/1977	FG-MOLDLINE

**EU-01
EMISSION UNIT CONDITIONS**

DESCRIPTION

A-line east pouring line, Mag drum and shot air wash.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #774 (20,000 dry standard cubic feet per minute (dscfm) reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-01	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.020 pph ²	Hourly	EU-01	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.004 pph ²	Hourly	EU-01	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-01 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-01 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #774 with a bag leak detection system. The permittee shall not operate Baghouse #774 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-01 at least once monthly, during operation, when EU-01 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-01	40 ²	52 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-02
EMISSION UNIT CONDITIONS**

DESCRIPTION

Vibramill, A-line Shake-out sand elevator and conveyor, A-line shot leg.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #788 (20,000 dscfm pulse jet type).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-02	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.090 pph ²	Hourly	EU-02	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.018 pph ²	Hourly	EU-02	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-02 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-02 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #788 with a bag leak detection system. The permittee shall not operate Baghouse #788 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-02 at least once monthly, during operation, when EU-02 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-02	24 ²	61 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**EU-TORCHES1-18
EMISSION UNIT CONDITIONS**

DESCRIPTION

Cutting torches #1-18.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.220 pph ²	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.044 pph ²	Hourly	EU-TORCHES1-18	SC V.1 and VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-TORCHES1-18 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

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. Verification of PM, PM10, and PM2.5 emission rates from EUTORCHES1-18 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing.² (R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)

2. If testing is required, 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. 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. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. If testing, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform and record the results of a non-certified visible emissions check on EU-TORCHES1-18 at least once monthly, during operation, when EU-TORCHES1-18 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-04	30 ²	55 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-05
EMISSION UNIT CONDITIONS**

DESCRIPTION

Vibramill, Shot Air Wash, B-line east end pouring line.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #791 (42,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-05	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.730 pph ²	Hourly	EU-05	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.146 pph ²	Hourly	EU-05	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-05 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-01 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #791 with a bag leak detection system. The permittee shall not operate Baghouse #791 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² (R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-05 at least once monthly, during operation, when EU-05 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: (R 336.1213(3), R 336.1301)
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-05	42 ²	80 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-06
EMISSION UNIT CONDITIONS**

DESCRIPTION

Sand coating/handling and reclaim operations.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #787 (20,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-06	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.540 pph ²	Hourly	EU-06	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.012 pph ²	Hourly	EU-06	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-06 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not exceed a loss of one percent resin based on total weight for the resin coated sand in the mold/core making process from pouring through shakeout.¹ (R 336.1225, Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-06 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate the EU-06 unless a minimum temperature of 1,200°F of the calcining furnace is maintained.¹ (R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)

3. The permittee shall not operate the calcining furnace in EU-06 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee

shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #787 with a bag leak detection system. The permittee shall not operate Baghouse #787 unless the bag leak detection system is installed and operating properly.² **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis. **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
2. The permittee shall continuously monitor the temperature of the calcining furnace utilizing temperature charts on a daily basis. **(R 336.1213(3))**
3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders which were used in the previous month of April and that the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor prior to June 30. **(R 336.1213(3))**
4. The permittee shall perform and record the results of a non-certified visible emissions check on EU-06 at least once monthly, during operation, when EU-06 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-06	32 ²	80 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-07
EMISSION UNIT CONDITIONS**

DESCRIPTION

Sand coating/handling and reclaim operations, Vibramill

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #484 and Baghouse #1001 (total air flow 20,000 dscfm reverse air type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-07	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.540 pph ²	Hourly	EU-07	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.012 pph ²	Hourly	EU-07	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-07 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not exceed a loss of one percent resin based on total weight for the resin coated sand in the mold/core making process from pouring through shakeout.¹ (R 336.1225, Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-07 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate the EU-07 unless a minimum temperature of 1,200°F of the calcining furnace is maintained.¹ (R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)

3. The permittee shall not operate the calcining furnace in EU-07 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan

and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain both Baghouse #484 and Baghouse #1001 with a bag leak detection system. The permittee shall not operate either Baghouse #484 or Baghouse #1001 unless their respective bag leak detection systems are installed and operating properly.² **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
2. The permittee shall continuously monitor the temperature of the calcining furnace utilizing temperature charts on a daily basis.¹ **(R 336.1225, Consent Order AQD No. 4-2017)**
3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders which were used in the previous month of April and that the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor prior to June 30. **(R 336.1213(3))**
4. The permittee shall perform and record the results of a non-certified visible emissions check on EU-07 at least once monthly, during operation, when EU-07 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1.SV-07	36 ²	46 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-08
EMISSION UNIT CONDITIONS**

DESCRIPTION

Cut-off saws #1-9, Grinders #1-13, 7 to 12 Hand grinders, 7 welders.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #616 (40,000 dscfm, reverse air type). Exhausts to the in-plant environment.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.003 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-08	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.5 pph ²	Hourly	EU-08	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.5 pph ²	Hourly	EU-08	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-08 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #616 with a bag leak detection system. The permittee shall not operate Baghouse #616 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.² (R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-08 directly into the atmosphere.² (R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-09
EMISSION UNIT CONDITIONS**

DESCRIPTION

Shot blast equipment.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #618 (25,000 dscfm reverse air type).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-09	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.050 pph ²	Hourly	EU-09	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.010 pph ²	Hourly	EU-09	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-09 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-09 unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse #618 with a bag leak detection system. The permittee shall not operate Baghouse #618 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² (R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-09 at least once monthly, during operation, when EU-09 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: (R 336.1213(3), R 336.1301)
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-09	36 ²	59 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-10A
EMISSION UNIT CONDITIONS**

DESCRIPTION

Sand leg and mag drum, Shot legs, Vibratory mold dumper/conveyor.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse #864 (32,000 dscfm dust collector) and Baghouse #776 (24,000 dscfm dust collector). Both reverse air.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-10A	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.66 pph ²	Hourly	EU-10A	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.132 pph ²	Hourly	EU-10A	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from EU-10A shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-10A unless the associated baghouses are installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain both Baghouse #864 and Baghouse #776 with a bag leak detection system. The permittee shall not operate either Baghouse #864 or Baghouse #776 unless their respective bag leak detection systems are installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis.² (R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall perform and record the results of a non-certified visible emissions check on EU-10A at least once monthly, during operation, when EU-10A is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: (R 336.1213(3), R 336.1301)
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-10A	48 ²	80 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

D. FLEXIBLE GROUP CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-POUR	<p>EU-POURINGA: Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type). Exhausts to the in-plant environment.</p> <p>EU-POURINGB: Three (3) electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type). Exhausts to the in-plant environment.</p>	EU-POURINGA, EU-POURINGB
FG-MOLDLINE	<p>Molding machines # 1-26 and cutting torches #19-22. No control.</p> <p>A-line west end pouring line A-line cooling room controlled by Baghouse #789 (32,000 dscfm shaker type)</p> <p>West end pouring line B, B-line cooling room controlled by Baghouse #792 (47,000 dscfm shaker type)</p> <p>All equipment exhausts through SV-03.</p>	EU-03A, EU-03B, EU-MOLDLINE-A, EU-MOLDLINE-B, EU-MOLDLINE-C, EU-TORCHES19-22
FG-MACTZZZZZ (conditions listed after the Blue Diamond Steel Casting conditions)	The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Huron Casting Inc. is an existing large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.	

FG-POUR

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

EU-POURINGA:

Three (3) electric induction furnaces, Pouring line A and ancillary equipment controlled by Baghouse #790 (30,000 dscfm reverse air type) exhausts to the in-plant environment.

EU-POURINGB:

Three electric induction furnaces, Pouring line B and ancillary equipment controlled by Baghouse #554 (42,000 dscfm pulse jet type and Baghouse #553 (32,000 dscfm pulse jet type) exhausts to the in-plant environment.

Emission Units: EU-POURINGA and EU-POURINGB

POLLUTION CONTROL EQUIPMENT

Three baghouses that exhaust to the in-plant environment.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	FG-POUR	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.5 pph ²	Hourly	FG-POUR	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.5 pph ²	Hourly	FG-POUR	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate FG-POUR unless the associated baghouses are installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall equip and maintain Baghouse #790, Baghouse #554, and Baghouse #553 with a bag leak detection system. The permittee shall not operate Baghouse #790, Baghouse #554, or Baghouse #553 unless their respective bag leak detection systems are installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.² **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-POURINGA and/or EU-POURINGB directly into the atmosphere.² **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-MOLDLINE
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Molding machines # 1-26 and cutting torches #19-22. No control.

A-line west end pouring line A-line cooling room; BH #789

West end pouring line B, B-line cooling room; BH #792

All equipment exhausts through SV-03.

Emission Unit: EU-MOLDLINE-A, EU-MOLDLINE-B, EU-MOLDLINE-C, EU-TORCHES19-22, EU-03A, EU-03B

POLLUTION CONTROL EQUIPMENT

Baghouse #789 (32,000 dscfm shaker type)

Baghouse #792 (47,000 dscfm shaker type)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.008 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	FG-MOLDLINE	SC VI.4	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	4.6 pph ²	Hourly	FG-MOLDLINE	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.922 pph ²	Hourly	FG-MOLDLINE	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
4. Phenol	1.95 pph ²	Hourly	FG-MOLDLINE	SC V.1	R 336.1205(3), R 336.1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017

5. Visible emissions from FG-MOLDLINE shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not use more than 1,480 tons per year of binder in FG-MOLDLINE, based on a 12-month rolling time period, as determined at the end of each calendar month.² (R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

2. The maximum phenol content of any of the binder used for coating sand shall not exceed 1.1 percent by weight.² (R 336. 1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall equip and maintain both Baghouse #789 and Baghouse #792 with a bag leak detection system. The permittee shall not operate either Baghouse #789 or Baghouse #792 unless their respective bag leak detection systems are installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-03A or EU-03B unless the associated baghouse is installed, maintained, and operated in a satisfactory manner.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

1. Verification of PM10, PM2.5, and/or phenol emission rates from SV-03 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. (R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)²
2. If testing is required, testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
VOC	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. 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. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

3. If testing is required, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. (R 336.1213(3), 336.2001(4))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205, Consent Order AQD No. 4-2017)
2. The permittee shall keep, in a satisfactory manner, on a monthly and 12-month rolling time period basis, records of the sand usage rate and the binder usage rate. The permittee shall also keep a copy of the Certificate of Analysis of the binders, and calculations verifying the actual phenol in percent by weight. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² (R 336.1205(3), R 336.1225, Consent Order AQD No. 4-2017)
3. The permittee shall, on an annual basis during the month of May, independently verify by analysis the phenol content of each of the binders that were used during an entire month, and the loss of binder is no more than one percent in spent mold/core sand. The results of this testing shall be submitted to the AQD District Supervisor 60 days following the last day of testing.² (R 336.1205(3), R 336.1225, R 336.1702, R 336.2810, Consent Order AQD No. 4-2017)

4. The permittee shall continuously monitor and record the pressure drop across each baghouse on a daily basis.² **(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
3. The permittee shall perform and record the results of a non-certified visible emissions check on FG-MOLDLINE at least once monthly, during operation, when FG-MOLDLINE is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

VII. REPORTING

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

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-03	92 ²	150 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-MACTZZZZZ
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

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

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1A. PM	0.8 lb per ton of metal charged ²	Hourly Average	Any metal melting furnace at Huron Casting, Inc.	SC V.1 and VI.3	40 CFR 63.10895(c)(1), Consent Order AQD No. 4-2017
-OR-					
1B. Total Metal HAP	0.06 lb per ton of metal charged ²	Hourly Average	Any metal melting furnace at Huron Casting, Inc.	SC V.1 and VI.3	40 CFR 63.10895(c)(1), Consent Order AQD No. 4-2017

2. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater 20 percent.² **(R 336.1358, 40 CFR 63.10895(e) of 40 CFR Part 63, Subpart ZZZZZ, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. If applicable, the permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a warm box mold or core making line. This requirement does not apply to the resin portion of the binder system.² **(40 CFR 63.10886, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
 a. Metallic scrap management program. **(40 CFR 63.10885(a))**
 b. Mercury requirements. **(40 CFR 63.10885(b))**

The permittee shall revise the plan within 30 days after a change occurs.² **(40 CFR 63.10885, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any metal melting furnace at the iron and steel foundry unless a capture and collection system are installed, maintained, and operated in accordance with the American Conference of

Governmental Industrial Hygienists standards or equivalent unless the furnace is specifically uncontrolled as part of an emissions averaging group. **(40 CFR 63.10895(b), Consent Order AQD No. 4-2017)²**

V. TESTING/SAMPLING

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

1. By July 2, 2008, the permittee shall conduct a performance test to demonstrate initial compliance with PM emission limits for each metal melting furnace. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 40 CFR 63.10895 for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. The permittee shall conduct the performance tests as specified in Table 1 of 40 CFR Part 63, Subpart ZZZZZ. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**
2. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR Part 63, Subpart ZZZZZ. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895 no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

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 prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
 - a. General facility and contact information;
 - b. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
 - c. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2); and
 - d. Identity and estimated quantity of the replacement parts that will be maintained in inventory.

The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in SC VI.2 to demonstrate compliance with the requirements for an O&M plan.² **(40 CFR 63.10896(a) and (b), Consent Order AQD No. 4-2017)**

2. The permittee shall perform periodic inspections and maintenance of each PM control device for each metal melting furnace. The permittee shall perform the initial and periodic inspections according to the requirements listed below and in 40 CFR 63.10897:²
 - a. For the initial inspection of each baghouse, the permittee shall visually inspect the system ductwork and baghouse units for leaks and inspect the inside of each baghouse for structural integrity and fabric filter condition.² **(40 CFR 63.10897(a)(1))**
 - b. For each subsequent inspection the permittee shall conduct monthly visual inspections of the system ductwork for leaks and conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.² **(40 CFR 63.10897(a)(1)(i) and (ii), Consent Order AQD No. 4-2017)**
3. The permittee may install, operate, and maintain a bag leak detection system for each baghouse as an alternative to the baghouse inspection requirements in SC VI.2. Each bag leak detection system must meet the

requirements of 40 CFR 63.10897(d)(1)(i) through (vii).² **(40 CFR 63.10897(d)(1), Consent Order AQD No. 4-2017)**

4. The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the facility O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. The plan shall include all information required per 40 CFR 63.10897 (d)(2)(i) through (vi).² **(40 CFR 63.10897(d)(2), Consent Order AQD No. 4-2017)**
5. In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the corrective action was initiated, the correction action taken, and the date on which corrective action was completed.² **(40 CFR 63.10897 (d)(3), Consent Order AQD No. 4-2017)**
6. The permittee shall perform monthly inspections of the equipment that is important to the performance of the total capture system. This inspection must include observations of the physical appearance of the equipment. The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency.² **(40 CFR 63.10897(e), Consent Order AQD No. 4-2017)**
7. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.² **(40 CFR 63.10897(g), Consent Order AQD No. 4-2017)**
8. The permittee shall keep records on a monthly basis as required by 40 CFR 63.10899(b)(1) through (13) as applicable. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(40 CFR 63.10899(b), Consent Order AQD No. 4-2017)**
9. The permittee shall comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 in 40 CFR Part 63, Subpart ZZZZZ.² **(40 CFR 63.10900, Consent Order AQD No. 4-2017)**
10. The notification of compliance status required by 40 CFR 63.9(h) shall include each applicable certification of compliance, signed by a responsible official, according to Table 4 in 40 CFR Part 63, Subpart ZZZZZ.² **(40 CFR 63.10900(b), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in 40 CFR 63.10(e). The reports must include, at a minimum, the following information as applicable:
 - a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
 - b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
 - c. Summary information on any deviation from the pollution prevention management practices in 40 CFR 63.10885 and 63.10886 and the operation and maintenance requirements 40 CFR 63.10896 and the corrective action taken.² **(40 CFR 10899(c), Consent Order AQD No. 4-2017)**
2. If applicable, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that the facility has conducted periodic inspections or taken other means of corroboration as required under 40

CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment.² **(40 CFR 63.10899(b)(2)(i), Consent Order AQD No. 4-2017)**

3. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
4. 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))**
5. 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))**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
7. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZZ for Iron and Steel Foundries by the initial compliance date.² **(40 CFR Part 63, Subparts A and ZZZZZ, Consent Order AQD No. 4-2017)**

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

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

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

Appendix 2-1. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3-1. Monitoring Requirements

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

Appendix 4-1. Recordkeeping

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

Appendix 5-1. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-1. Permits to Install

The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-B7013-2018. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6-1 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
115-16	All process equipment source-wide at both the Huron Casting, Inc. and Blue Diamond Steel Casting facilities including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EU-01, EU-02, EU-POURINGA, EU-03A, EU-03B, EU-TORCHES1-18, EU-05, EU-06, EU-07, EU-08, EU-09, EU-10A, EU-POURINGB, EU-MOLDLINEA, EU-MOLDLINEB, EU-MOLDLINEC, EU-TORCHES19-22, FG-POUR, FG-MOLDLINE, FG-MACTZZZZZ, FG-FACILITY, EU-NBFURNACE, EU-NBPOURANDCOOL, EU-NBCALCINER, EU-NBSAND, EU-NBMOLD, EU-SHELLFURNACE, EU-SHELLPOUR, EU-SHELLCOOL, EU-SHELLSAND, EU-SHELLCALCINER, EU-SHELLMOLD,

		EU-NBTORCHES, EU-SHELLTORCHES, EU-FINISHING, EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND, FG-BDSV01, FG-BDSV02, FG-BDSV03, FG-BDSV04, FG-BDSV05, FG-MACTZZZZZ
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The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B7013-2018.

Permit to Install Number	ROP Revision Application Number - Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
89-19	201900145 / December 4, 2019	<p>This Minor Modification Application was to incorporate TPI 89-19 into the ROP. PTI 89-19 was to add two new shell molding machines to their existing molding line EU-MOLDLINE-C. The addition of the two new shell molding machines will not increase the binder usage at Huron Castings Inc. and cannot run all of the molding machines simultaneously due to:</p> <ul style="list-style-type: none"> • The rate that the steel can be melted and poured into the molds; • Staffing in the Molding department; • The number of molds on hand that can be stored; • Customer orders which dictate the sizing of the mold required. <p>Under normal operating conditions, 50% - 70% of the molding machines are operating at any given time. This is addressed in FG-MOLDLINE-S1</p> <p>Conditions were also updated to be consistent with similar Condition's in each table in each Emission Unit and Flexible Group in Section 1.</p>	EU-01-S1, EU-02-S1, EU-TORCHES1-18-S1, EU-05-S1, EU-06-S1, EU-07-S1, EU-08-S1, EU-09-S1, EU-10A-S1, FG-POUR-S1, FG-MOLDLINE-S1, FG-MACTZZZZZ-S1, Source-Wide

Appendix 7-1. Emission Calculations

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

Appendix 8-1. 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.

SECTION 2 – BLUE DIAMOND STEEL CASTING LLC

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

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

Permit Shield

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

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

27. Nothing in this ROP shall alter or affect any of the following:
 - d. 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))**
 - e. 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))**
 - f. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**

- e. 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:
- f. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - g. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - h. 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))**
 - i. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - j. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

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

Reopenings

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

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(8))**

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit To Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

SOURCE-WIDE CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Some emission units controlled with baghouses

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM10	59.6 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
2. PM2.5	11.9 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
3. VOC	50 lb/ton binder ²	monthly average	All emission units located at the facility	SC VI.3 and VI.4	R 336.2810 Consent Order AQD No. 4-2017
4. VOC	98.0 tpy ²	12-month rolling time period as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
5. Individual HAPs	8.9 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
6. Aggregate HAPs	22.4 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission units located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017
7. CO	4.8 lb/ton melt ²	monthly average	All emission limits located at the facility	SC VI.3 and VI.4	R 336.2810 Consent Order AQD No. 4-2017
8. CO	345.6 tpy ²	12-month rolling time period, as determined at the end of each calendar month.	All emission limits located at the facility	SC VI.3 and VI.4	R 336.1205(3) Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

1. The permittee shall not melt more than 144,000 tons of metal per year based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall not melt more than 72,000 tons per year of steel at Huron Casting, Inc. based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
3. The permittee shall not melt more than 72,000 tons per year of steel at Blue Diamond Steel Casting based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
4. The permittee shall not use more than 1,026 MMcf per year of natural gas, based on a 12-month rolling time period, as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
5. The permittee shall not process a combined total of more than 3,870 tons of binder per year in FG-MOLDLINE, FG-BDSV03, FG-BDSV04, and FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each emission unit that is subject to an emission limit more than 7,000 hours per year based on a 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall not operate any of the 29 baghouses at the facility unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted to the AQD District Supervisor within 180 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, records of metal melted in tons per month, as required by SC II.1, II.2, and II.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205, R 336.1220, R 336.1225, Consent Order AQD No. 4-2017)**
3. The permittee shall have an approved spreadsheet for approval by the AQD District Supervisor to calculate all emissions as specified in SC I.1 through I.8, based on material usage rates and emission factors.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period PM10, PM2.5, VOCs, individual and aggregate HAPs, and CO emission calculation records, as required by SC I.1, I.2, I.3, I.4, I.5, I.6, I.7, and I.8. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period operating hour records for each emission unit, that is subject to an emission limit, as required by SC III.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of natural gas usage rates, as required by SC II.4. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling records of binder usage rates, as required by SC II.5. The permittee shall keep all records on file at for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the Chief of the AQD.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

Footnotes:

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

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

C. EMISSION UNIT CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-NBFURNACE	The no-bake furnace line consists of three electric induction furnaces: two 8-ton capacity melt furnaces, one electric arc ladle reheat station, and a vacuum degassing unit for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-01) and a 80,000 cfm baghouse (BH-22) with the exhaust re-circulated to an area behind the furnace hoods.	12/14/2009 10/11/2016	NA
EU-NBPOURANDCOOL	The no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). Stack ID: SV-01	12/14/2009	FG-BDSV01
EU-NBCALCINER	The calciner is used to destroy the binder material in the mold facing and core sand by heating it to 1,200°F before the sand is returned to the sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). Stack ID: SV-03	12/23/2009	FG-BDSV03
EU-NBSAND	The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04). Stack ID: SV-03	12/23/2009	FG-BDSV03
EU-NBMOLD	The moldmaking process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. No control. Stack ID: NA	12/08/2009	NA
EU-SHELLFURNACE	The shell furnace line consists of three 8-ton capacity electric induction furnaces for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-06) with the exhaust re-circulated back into the furnace hoods.	12/14/2009	NA
EU-SHELLPOUR	This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-05). Stack ID: SV-04	12/14/2009	FG-BDSV04

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-SHELLCOOL	The shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07). Stack ID: SV-01	12/14/2009	FG-BDSV01
EU-SHELLSAND	The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). Stack ID: SV-04	12/23/2009	FG-BDSV04
EU-SHELLCALCINER	This emission unit includes the sand coater and the calciner. The sand coater blends the sand and binder. The calciner destroys the binder material in the mold facing and core sand from the shell line by heating it to 1,200° F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). Stack ID: SV-02	12/08/2009	FG-BDSV02
EU-SHELLMOLD	This emission unit prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm exhausted through stack SV-02. Includes 22 core machines which emit to the in-plant environment. Each heat treat furnace is rated at 9.9 MMBTU/hr. Stack ID: SV-02	12/08/2009 03/2018	FG-BDSV02
EU-NBTORCHES	No-bake cutting torches with the exhaust emitted into the cutting area.	12/08/2009	NA
EU-SHELLTORCHES	Shell cutting torches with the exhaust re-circulated back into the cutting area.	12/08/2009	NA
EU-FINISHING	The finishing process consists of grinders, shot blast, cut-off saws, wheelabrators, and welders. The process is controlled by a 30,000 cfm baghouse (BH-10) with the exhaust re-circulated back into the finishing area.	12/2009	NA
EU-SHELL2POUR	This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18). Stack ID: SV-05	07/21/2014	FG-BDSV05
EU-SHELL2COOL	The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each. Stack ID: SV-05	07/21/2014	FG-BDSV05
EU-SHELL2SAND	The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17). Stack ID: SV-05	07/21/2014	FG-BDSV05

**EU-NBFURNACE
EMISSION UNIT CONDITIONS**

DESCRIPTION

The no-bake furnace line consists of three electric induction furnaces: two 8-ton capacity melt furnaces, one electric arc ladle reheat station, and a vacuum degassing unit for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-01) and a 80,000 cfm baghouse (BH-22) with the exhaust re-circulated to an area behind the furnace hoods.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	EU-NBFURNACE	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	2.14 pph ²	Hourly	EU-NBFURNACE	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.5 pph ²	Hourly	EU-NBFURNACE	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain Baghouse BH-01 with a bag leak detection system. The permittee shall not operate Baghouse BH-01 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall equip and maintain Baghouse BH-22 with a bag leak detection system. The permittee shall not operate Baghouse BH-22 unless the bag leak detection system is installed and operating properly. (R 336.1225, R 336.1910, R 336.1213(3), Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor, the permittee shall verify PM and PM10 emission rates from EU-NBFURNACE by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205, R 336.2810, Consent Order AQD No. 4-2017)**
2. Upon request of the AQD District Supervisor, the permittee shall provide the hood capture system design specifications, operating procedures and a signed certification package from a qualified contractor certifying that proper operation of the hood capture system as installed will achieve no less than 90 percent collection efficiency from EU-NBFURNACE. The verification shall include a description of the appropriate operating conditions for the furnace and exhaust gas flow rate to the baghouse control device as correlated to the hood collection efficiency during proper operation of the hood capture system.² **(R 336.1205(1)(a) & (b), Consent Order AQD No. 4-2017)**
3. Upon request of the AQD District Supervisor, the permittee shall conduct the initial smoke test for verifying capture efficiency of the EU-NBFURNACE hood capture system, by in-plant testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission limits includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205, R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2802, R 330.2810, Consent Order AQD No. 4-2017)**
4. If testing is required, 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	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. 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. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**
2. The permittee shall keep, in a satisfactory manner, monthly records of tons of steel melted for EU-NBFURNACE. All records shall be kept on file at the facility and made available to the Department upon request.² **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**
3. The permittee shall monitor and record, in a satisfactory manner, the negative pressure using a magnehelic gauge at the inlet side of the baghouse BH-01 for EU-NBFURNACE on a daily basis during operation of EU-NBFURNACE to verify that the hood system capture velocity as designed is achieved in practice. The permittee shall also conduct an initial and annual inspection and verification that negative pressure in the duct from the hood to the baghouse conforms with the ACGIH minimum requirements.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.² **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBFURNACE directly into the atmosphere.² **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-NBMOLD EMISSION UNIT CONDITIONS

DESCRIPTION

The mold making process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. No control.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 1,550 tons of binder per year in EU-NBMOLD based on a 12-month rolling time period calculated at the end of each calendar month.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for EU-NBMOLD, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205 (3), Consent Order AQD No. 4-2017)**

VII. REPORTING

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

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBMOLD directly into the atmosphere.² **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-SHELLFURNACE
EMISSION UNIT CONDITIONS**

DESCRIPTION

The shell furnace line consists of three 8-ton capacity electric induction furnaces for an expected melting capacity of 200 tons per day. The furnaces are controlled by a 50,000 cfm baghouse (BH-06) with the exhaust re-circulated back into the furnace hoods.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	EU-SHELLFURNACE	SC V.1	R 336.1205 (3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	2.14 pph ²	Hourly	EU-SHELLFURNACE	SC V.1	R 336.1205 (3), R 336.2803, R 336.2804, R 336.1910, Consent Order AQD No. 4-2017
3. PM2.5	0.5 pph ²	Hourly	EU-SHELLFURNACE	SC V.1	R 336.1205 (3), R 336.2803, R 336.2804, R 336.1910, Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall equip and maintain Baghouse BH-06 with a bag leak detection system. The permittee shall not operate Baghouse BH-06 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

- Within 90 days after notification from AQD, the permittee shall verify PM, PM10 and PM2.5 emission rates from EU-SHELLFURNACE by testing at the owner’s expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and

District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(3), R 336.2803, R 336.2804, R 336.281, 40 CFR 52.21(c)& (d))**

Reference Test Method Table

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

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
2. The permittee shall keep, in a satisfactory manner, monthly records of tons of steel melted for EU-SHELLFURNACE. All records shall be kept on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (3), Consent Order AQD No. 4-2017)**
3. The permittee shall continuously monitor the pressure drop across the baghouse and record on a daily basis. **(R 336.1213(3))**

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-SHELLFURNACE directly into the atmosphere.² **(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-NBTORCHES EMISSION UNIT CONDITIONS
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DESCRIPTION

No-bake cutting torches with the exhaust emitted into the cutting area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-NBTORCHES directly into the ambient atmosphere.²
(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

EU-SHELLTORCHES EMISSION UNIT CONDITIONS

DESCRIPTION

Shell cutting torches with the exhaust emitted into the cutting area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-SHELLTORCHES directly into the atmosphere.²
(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EU-FINISHING
EMISSION UNIT CONDITIONS**

DESCRIPTION

The finishing process consists of grinders, shot blast, cut-off saws, wheelabrators, and welders. The process is controlled by a 30,000 cfm baghouse (BH-10) with the exhaust re-circulated back into the finishing area.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Baghouse BH-10, 30,000 cfm

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.004 lb/1000 lbs of exhaust gases on a dry basis ²	Hourly	EU-FINISHING	SC VI.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.5 pph ²	Hourly	EU-FINISHING	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.5 pph ²	Hourly	EU-FINISHING	SC VI.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-FINISHING unless enclosure and BH-10 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall equip and maintain Baghouse BH-10 with a bag leak detection system. The permittee shall not operate Baghouse BH-10 unless the bag leak detection system is installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor the pressure drop across each baghouse and record on a daily basis.²
(R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

1. The permittee shall not discharge the emissions from EU-FINISHING directly into the atmosphere.²
(R 336.1205(3), R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

D. FLEXIBLE GROUP CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-BDSV01	Emission units exhausted through stack SV-01. EU-NBPOURANDCOOL, the no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). And EU-SHELLCOOL: The shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07).	EU-NBPOURANDCOOL, EU-SHELLCOOL
FG-BDSV02	Emission units exhausted through stack SV-02. EU-SHELLCALCINER: This emission unit includes the sand coater and the calciner. The sand coater blends the sand and binder. The calciner destroys the binder material in the mold facing and core sand from the shell line by heating it to 1,200° F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). And EU-SHELLMOLD which prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm. Includes 22 core machines which emit to the in-plant environment and two natural gas fired heat treat furnaces. Each heat treat furnace is rated at 9.9 MMBTU/hr.	EU-SHELLCALCINER, EU-SHELLMOLD
FG-BDSV03	Emission units exhausted through stack SV-03. EU-NBCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand by heating it to 1,200° F (minimum) before the sand is returned to the sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). EU-NBSAND: The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04).	EU-NBCALCINER, EU-NBSAND
FG-BDSV04	Emission units exhausted through stack SV-04 EU-SHELLSAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). EU-SHELLPOUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse	EU-SHELLSAND, EU-SHELLPOUR

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-BDSV05	<p>Emission units exhausted through stack SV-05. EU-SHELL2POUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18).</p> <p>EU-SHELL2COOL: The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each.</p> <p>EU-SHELL2SAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17).</p>	EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND
FG-MACTZZZZZ (conditions listed after the Blue Diamond Steel Casting conditions)	The affected source is a new or existing iron and steel foundry, that is (or is part of) an area source of hazardous air pollutant (HAP) emissions. Blue Diamond Steel Casting is a new large foundry as defined by 40 CFR Part 63, Subpart ZZZZZ.	

**FG-BDSV01
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units exhausted through stack SV-01. EU-NBPOURANDCOOL, the no-bake pouring and cooling room consists of a pouring hood and enclosed cooling room which is controlled by a 40,000 cfm baghouse (BH-02). EU-SHELLCOOL, the shell cooling room encloses cast molds on a conveyor and is controlled by a 40,000 cfm baghouse (BH-07).

Emission Unit: EU-NBPOURANDCOOL, EU-SHELLCOOL

POLLUTION CONTROL EQUIPMENT

Baghouses BH-02 and BH-07

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	FG-BDSV01	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	0.260 pph ²	Hourly	FG-BDSV01	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.052 pph ²	Hourly	FG-BDSV01	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from FG-BDSV01 shall not exceed a six-minute average of five percent opacity.² (R 336.301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-NBPOURANDCOOL portion of FG-BDSV01 unless enclosure and BH-02 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² (R 336.1205,

R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate EU-SHELLCOOL portion of FG-BDSV01 unless enclosure and BH-07, are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
3. The permittee shall equip and maintain both Baghouse BH-02 and Baghouse BH-07 with a bag leak detection system. The permittee shall not operate either Baghouse BH-02 or Baghouse BH-07 unless their respective bag leak detection systems are installed and operating properly.² **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

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

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV01 by testing, at owner’s expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)²**
2. If testing is required, 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/PM 2.5	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. 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. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV01 at least once monthly, during operation, when FG-BDSV01 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-01	64 ²	125 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-BDSV02
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units exhausted through stack SV-02. EU-SHELLCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand from the shell line by heating it to 1,200° F (minimum) before the sand is returned to the shell sand system for recycling. The calciner is controlled by a 15,000 cfm baghouse (BH-09). EU-SHELLMOLD, the mold making process that blends the sand and binder, prepares and cures the molds, and sets the molds out on the casting lines. The emissions from this process are captured with a hood with a flow rate of 71,000 cfm. Includes 22 core machines which emit to the in-plant environment and two natural gas fired heat treat furnaces. Each heat treat furnace is rated at 9.9 MMBTU/hr.

Emission Unit: EU-SHELLCALCINER, EU-SHELLMOLD

POLLUTION CONTROL EQUIPMENT

Baghouse BH-09

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	FG-BDSV02	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	1.650 pph ²	Hourly	FG-BDSV02	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.330 pph ²	Hourly	FG-BDSV02	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from FG-BDSV02 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in EU-SHELLMOLD portion of FG-BDSV02 based on a 12-month rolling time period calculated at the end of each calendar month.² (R 336.1205(3), Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EU-SHELLCALCINER portion of FG-BDSV02 unless a minimum temperature of 1,200°F of the calcining furnace is maintained.¹ (R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)
- The permittee shall not operate the EU-SHELLCALCINER portion of FG-BDSV02 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of

permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule 912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² **(R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)**

- 3. The permittee shall not combust any fuel, other than natural gas, in the heat treat furnaces in EUSHELLMOLD.² **(R 336.1205(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall not operate EU-SHELLCALCINER portion of FG-BDSV02 unless enclosure and BH-09 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
- 2. The permittee shall equip and maintain Baghouse BH-09 with a bag leak detection system. The permittee shall not operate Baghouse BH-09 unless the bag leak detection system is installed and operating properly.² **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
- 3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature of EU-SHELLCALCINER portion of FG-BDSV02 on a continuous basis.² **(R 336.1301, R 336.1331, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

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

- 1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV02 by testing, at owner’s expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)²**
- 2. If testing is required, 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. 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. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(3), R 336.1910, Consent Order AQD No. 4-2017)**

2. The permittee shall keep, in a satisfactory manner, temperature records for EU-SHELLCALCINER portion of FG-BDSV02, as required by SC IV.3. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
3. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for EU-SHELLMOLD portion of FG-BDSV02, as required by SC II.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205 (3), Consent Order AQD No. 4-2017)**
4. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV02 at least once monthly, during operation, when FG-BDSV02 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-02	47 ²	55 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-BDSV03
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units exhausted through stack SV-03. EU-NBCALCINER: The calciner is used to destroy the binder material in the mold facing and core sand from the no-bake line by heating it to 1,200°F (minimum) before the sand is returned to the no-bake sand system for recycling. The calciner is controlled by a 6,500 cfm baghouse (BH-03). EU-NBSAND: The no-bake sand system includes the vibramill, sand cooler, shakeout, cooling conveyor, sand tanks, and elevators. The sand system is controlled by a 40,000 cfm baghouse (BH-04).

Emission Unit: EU-NBCALCINER, EU-NBSAND

POLLUTION CONTROL EQUIPMENT

Baghouses BH-03 and BH-04

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	FG-BDSV03	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	1.61 pph ²	Hourly	FG-BDSV03	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.322 pph ²	Hourly	FG-BDSV03	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from FG-BDSV03 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 1,550 tons of binder per year in FG-BDSV03 based on a 12-month rolling time period calculated at the end of each calendar month.² (R 336.1205(3), Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-NBCALCINER portion of FG-BDSV03 unless a minimum temperature of 1,200°F of the calcining furnace is maintained.¹ (R 336.1225, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall not operate the EU-NBCALCINER portion of FG-BDSV03 unless a written operation and maintenance (O&M) plan for the furnace has been submitted to the AQD District Supervisor within 180 days of permit issuance and is implemented and maintained. If at any time the O&M plan fails to address or inadequately addresses an event that meets the characteristics of abnormal conditions or a malfunction as described in Rule

912, the permittee shall amend the O&M plan within 45 days after such an event occurs. The permittee shall also amend the O&M plan within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the O&M plan and any amendments to the O&M plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the O&M plan or amended O&M plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² (R 336.1225, R 336.1331, R 336.1912, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017)

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-NBCALCINER portion of FG-BDSV03 unless enclosure and BH-03 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature of EU-NBCALCINER portion of FG-BDSV03 on a continuous basis.² (R 336.1301, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
3. The permittee shall not operate EU-NBSAND portion of FG-BDSV03 unless enclosure and BH-04 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
4. The permittee shall equip and maintain both Baghouse BH-03 and Baghouse BH-04 with a bag leak detection system. The permittee shall not operate either Baghouse BH-03 or Baghouse BH-04 unless their respective bag leak detection systems are installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV03 by testing, at owner’s expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing.² (R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)
2. If testing is required, 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. 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. (R 336.2001, R 336.2003, R 336.2004)

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² (R 336.1205(3), R 336.1910, Consent Order AQD No. 4-2017)

2. The permittee shall keep, in a satisfactory manner, temperature records for EU-NBCALCINER portion of FG-BDSV03, as required by SC IV.3. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)**
3. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV03, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
4. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV03 at least once monthly, during operation, when FG-BDSV03 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-03	43 ²	75 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**FG-BDSV04
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units exhausted through stack SV-04 EU-SHELLSAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, and sand tanks. The sand system is controlled by a 35,000 cfm baghouse (BH-08). EU-SHELLPOUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-05).

Emission Unit: EU-SHELLSAND, EU-SHELLPOUR

POLLUTION CONTROL EQUIPMENT

Baghouses BH-08 and BH-05

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	FG-BDSV04	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	1.430 pph ²	Hourly	FG-BDSV04	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.286 pph ²	Hourly	FG-BDSV04	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from FG-BDSV04 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in FG-BDSV04 based on a 12-month rolling time period calculated at the end of each calendar month.² (R 336.1205(3), Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SHELLPOUR portion of FG-BDSV04 unless enclosure and BH-05 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate EU-SHELLSAND portion of FG-BDSV04 unless enclosure and BH-08 are installed, maintained, and operated in accordance with the manufacturer’s recommendations.² **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**
3. The permittee shall equip and maintain both Baghouse BH-05 and Baghouse BH-08 with a bag leak detection system. The permittee shall not operate either Baghouse BH-05 or Baghouse BH-08 unless their respective bag leak detection systems are installed and operating properly.² **(R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)**

V. TESTING/SAMPLING

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

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV04 by testing, at owner’s expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)²**
2. If testing is required, 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. 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. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations/records in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(3), Consent Order AQD No. 4-2017)**
2. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV04, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(R 336.1205(3), Consent Order AQD No. 4-2017)**
3. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV04 at least once monthly, during operation, when FG-BDSV04 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: **(R 336.1213(3), R 336.1301)**
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.
 - b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-04	53 ²	125 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FG-BDSV05
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units exhausted through stack SV-05. EU-SHELL2POUR: This unit includes the pourline, shot separator, and shot cooler. All activities are controlled by a 50,000 cfm baghouse (BH-18). EU-SHELL2COOL: The shell cooling room encloses cast molds on a conveyor and is controlled by baghouses BH-19A and BH-19B, 30,000 dscfm each. EU-SHELL2SAND: The shell sand system includes the mechanical reclaim, dumper, shakeout conveyor, shot sand screen, vibramill, bucket elevators, torch stations, and sand tanks. The sand system is controlled by a 40,000 cfm baghouse (BH-17). ~~(PTI 115-16)~~

Emission Unit: EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND

POLLUTION CONTROL EQUIPMENT

Baghouses BH-18, BH-19, and BH-17

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.005 grains/dscf ²	Hourly	FG-BDSV05	SC V.1	R 336.1205(3), R 336.1331, R 336.2810, Consent Order AQD No. 4-2017
2. PM10	1.680 pph ²	Hourly	FG-BDSV05	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017
3. PM2.5	0.336 pph ²	Hourly	FG-BDSV05	SC V.1	R 336.1205(3), R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017

4. Visible emissions from FG-BDSV05 shall not exceed a six-minute average of five percent opacity.² (R 336.1301, R 336.1331, Consent Order AQD No. 4-2017)

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 840 tons of binder per year in FG-BDSV05 based on a 12-month rolling time period calculated at the end of each calendar month.² (R 336.1205(3), Consent Order AQD No. 4-2017)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EU-SHELL2SAND portion of FG-SHELLSAND unless the enclosure (shell cooling room) and BH-17 are installed, maintained, and operated in accordance with the manufacturer's

recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

2. The permittee shall not operate EU-SHELL2POUR portion of FG-BDSV05 unless the enclosure (shell cooling room) and BH-18 are installed, maintained, and operated in accordance with the manufacturer's recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
3. The permittee shall not operate EU-SHELL2COOL portion of FG-BDSV05 unless the enclosure (shell cooling room) and BH-19 are installed, maintained, and operated in accordance with the manufacturer's recommendations.² (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)
4. The permittee shall equip and maintain Baghouse BH-17, Baghouse BH-18, and Baghouse BH-19 with a bag leak detection system. The permittee shall not operate Baghouse BH-17, Baghouse BH-18, or Baghouse BH-19 unless their respective bag leak detection systems are installed and operating properly.² (R 336.1225, R 336.1910, R 336.2803, R 336.2804, R 336.2810, Consent Order AQD No. 4-2017)

V. TESTING/SAMPLING

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

1. Verification of PM, PM10, and PM2.5 emission rates from FG-BDSV05 by testing, at owner's expense, in accordance with Department requirements, may be required. The testing shall be conducted within 60 days following receipt of the notification of the requirement. Verification of emission rates includes the submittal of a complete report of the test results. If testing is required, a complete report of test results must be submitted to the Division within 60 days following the last day of testing. (R 336.1225, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)²
3. If testing is required, 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. 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. (R 336.2001, R 336.2003, R 336.2004)

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, records of monthly and yearly binder usage rate for FG-BDSV05, as required by SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205(3), Consent Order AQD No. 4-2017)
2. The permittee shall perform and record the results of a non-certified visible emissions check on FG-BDSV05 at least once monthly, during operation, when FG-BDSV05 is venting to the atmosphere. The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9; therefore, multiple stacks may be observed simultaneously. The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded. If any visible emissions are observed, the permittee shall immediately implement one of the following procedures: (R 336.1213(3), R 336.1301)
 - a. If any visible emissions have been observed during the non-certified visible emissions check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation. If the results of the Method 9 visible emissions observation indicate a violation of the opacity standard, the permittee shall immediately initiate corrective actions and document the corrective actions taken.

- b. The permittee shall immediately initiate corrective actions and document the corrective actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.

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 notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
5. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-05	84 ²	150 ²	R 336.1225, R 336.2803, R 336.2804, Consent Order AQD No. 4-2017

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

FG-RULE 290 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Unit: BD-Heat Treat Furnace and any future emission unit that meets the requirements of this flexible group.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**
2. Each emission unit for which CO₂ equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**
 - a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(A))**
 - b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively. **(R 336.1290(2)(a)(ii)(B))**
 - c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter. **(R 336.1290(2)(a)(ii)(C))**
 - d. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month. **(R 336.1290(2)(a)(ii)(D))**
 - e. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month. **(R 336.1290(2)(a)(ii)(E))**
3. Each emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all of the following provisions are met: **(R 336.1290(2)(a)(iii))**
 - a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. **(R 336.1290(2)(a)(iii)(A))**
 - b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. **(R 336.1290(2)(a)(iii)(B))**
 - c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter. **(R 336.1290(2)(a)(iii)(C))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**
2. The following requirements apply to emission units utilizing control equipment:
 - b. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer's specifications. Examples include the following: **(R 336.1290(2)(b)(i))**
 - i. Oxidizers and condensers equipped with a continuously displayed temperature indication device.
 - ii. Wet scrubbers equipped with a liquid flow rate monitor.
 - iii. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.
 - c. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer's specifications or the owner or operators shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Records identifying each air contaminant that is emitted. **(R 336.1213(3))**
 - b. Records identifying if each air contaminant is controlled or uncontrolled. **(R 336.1213(3))**
 - c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. **(R 336.1213(3))**
 - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). **(R 336.1213(3))**
 - e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor. **(R 336.1213(3), R 336.1290(2)(d))**
 - f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**
2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. **(R 336.1213(3))**
 - a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. **(R 336.1290(2)(c), R 336.1213(3))**

- b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**
- 3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

If the permittee chooses to use record form EQP 3558 for its Rule 290 emission unit(s), the permittee has the option of placing the form in Appendix 4 of the ROP. The latest version of the form is available on the EGLE-AQD website. The permittee is not required to include record form EQP 3558 in their ROP.

VII. REPORTING

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

See Appendix 8-2

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

**FG-MACTZZZZZ
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

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

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1A. PM	0.1 lb per ton of metal charged ²	Hourly	Any metal melting furnace at Blue Diamond Steel Casting	SC V.1 and VI.3	40 CFR 63.10895(c)(2), Consent Order AQD No. 4-2017
-OR-					
1B. Total Metal HAP	0.008 lb per ton of metal charged ²	Hourly	Any metal melting furnace at Blue Diamond Steel Casting	SC V.1 and VI.3	40 CFR 63.10895(c)(2), Consent Order AQD No. 4-2017

2. The permittee shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater 20 percent.² **(R 336.1358, 40 CFR 63.10895(e) of 40 CFR Part 63, Subpart ZZZZZ, Consent Order AQD No. 4-2017)**

II. MATERIAL LIMIT(S)

1. If applicable, the permittee shall not utilize a binder chemical formulation that uses methanol as a specific ingredient of the catalyst formulation for a warm box mold or core making line. This requirement does not apply to the resin portion of the binder system.² **(40 CFR 63.10886, Consent Order AQD No. 4-2017)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap and mercury switches by the applicable compliance date specified in 40 CFR 63.10881. The plan shall include the following:
 a. Metallic scrap management program. **(40 CFR 63.10885(a))**
 b. Mercury requirements. **(40 CFR 63.10885(b))**

The permittee shall revise the plan within 30 days after a change occurs.² **(40 CFR 63.10885, Consent Order AQD No. 4-2017)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any metal melting furnace at the iron and steel foundry unless a capture and collection system are installed, maintained, and operated in accordance with the American Conference of

Governmental Industrial Hygienists standards or equivalent unless the furnace is specifically uncontrolled as part of an emissions averaging group. **(40 CFR 63.10895(b), Consent Order AQD No. 4-2017)**²

V. TESTING/SAMPLING

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

1. By July 2, 2008, the permittee shall conduct a performance test to demonstrate initial compliance with PM emission limits for each metal melting furnace. The permittee shall conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in 40 CFR 63.10895 for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time the permittee elects to change an operating limit or make a process change likely to increase HAP emissions. The permittee shall conduct the performance tests as specified in Table 1 of 40 CFR Part 63, Subpart ZZZZZ. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**
2. The permittee shall conduct each opacity test for fugitive emissions according to the requirements in 40 CFR 63.6(h)(5) and Table 1 of 40 CFR Part 63, Subpart ZZZZZ. The permittee shall conduct subsequent performance tests to demonstrate compliance with the opacity limit in 40 CFR 63.10895 no less frequently than every 6 months and each time the permittee makes a process change likely to increase fugitive emissions. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(40 CFR 63.10898, Consent Order AQD No. 4-2017)**

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 prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in 40 CFR 63.10895. The permittee shall maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
 - a. General facility and contact information;
 - b. Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
 - c. Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in 40 CFR 63.10897(d)(2); and
 - d. Identity and estimated quantity of the replacement parts that will be maintained in inventory.

The permittee may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in SC VI.2 to demonstrate compliance with the requirements for an O&M plan.² **(40 CFR 63.10896(a) and (b), Consent Order AQD No. 4-2017)**

2. The permittee shall perform periodic inspections and maintenance of each PM control device for each metal melting furnace. The permittee shall perform the initial and periodic inspections according to the requirements listed below and in 40 CFR 63.10897:²
 - a. For the initial inspection of each baghouse, the permittee shall visually inspect the system ductwork and baghouse units for leaks and inspect the inside of each baghouse for structural integrity and fabric filter condition.² **(40 CFR 63.10897(a)(1))**
 - b. For each subsequent inspection the permittee shall conduct monthly visual inspections of the system ductwork for leaks and conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.² **(40 CFR 63.10897(a)(1)(i) and (ii), Consent Order AQD No. 4-2017)**
3. The permittee may install, operate, and maintain a bag leak detection system for each baghouse as an alternative to the baghouse inspection requirements in SC VI.2. Each bag leak detection system must meet the

requirements of 40 CFR 63.10897(d)(1)(i) through (vii).² **(40 CFR 63.10897(d)(1), Consent Order AQD No. 4-2017)**

4. The permittee shall prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in the facility O&M plan. The permittee shall operate and maintain each bag leak detection system according to the plan at all times. The plan shall include all information required per 40 CFR 63.10897 (d)(2)(i) through (vi).² **(40 CFR 63.10897(d)(2), Consent Order AQD No. 4-2017)**
5. In the event that a bag leak detection system alarm is triggered, the permittee shall initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. The permittee shall record the date and time of each valid alarm, the corrective action was initiated, the correction action taken, and the date on which corrective action was completed.² **(40 CFR 63.10897 (d)(3), Consent Order AQD No. 4-2017)**
6. The permittee shall perform monthly inspections of the equipment that is important to the performance of the total capture system. This inspection must include observations of the physical appearance of the equipment. The permittee shall repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. The permittee shall record the date and results of each inspection and the date of repair of any defect or deficiency.² **(40 CFR 63.10897(e), Consent Order AQD No. 4-2017)**
7. In the event of an exceedance of an established emissions limitation (including an operating limit), the permittee shall restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the exceedance. The permittee shall record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.² **(40 CFR 63.10897(g), Consent Order AQD No. 4-2017)**
8. The permittee shall keep records on a monthly basis as required by 40 CFR 63.10899(b)(1) through (13) as applicable. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² **(40 CFR 63.10899(b), Consent Order AQD No. 4-2017)**
9. The permittee shall comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 in 40 CFR Part 63, Subpart ZZZZZ.² **(40 CFR 63.10900, Consent Order AQD No. 4-2017)**
10. The notification of compliance status required by 40 CFR 63.9(h) shall include each applicable certification of compliance, signed by a responsible official, according to Table 4 in 40 CFR Part 63, Subpart ZZZZZ.² **(40 CFR 63.10900(b), Consent Order AQD No. 4-2017)**

VII. REPORTING

1. The permittee shall submit semiannual compliance reports to the Administrator according to the requirements in 40 CFR 63.10(e). The reports must include, at a minimum, the following information as applicable:
 - a. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
 - b. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
 - c. Summary information on any deviation from the pollution prevention management practices in 40 CFR 63.10885 and 63.10886 and the operation and maintenance requirements 40 CFR 63.10896 and the corrective action taken.² **(40 CFR 10899(c), Consent Order AQD No. 4-2017)**
2. If applicable, the permittee shall submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification

that the facility has conducted periodic inspections or taken other means of corroboration as required under 40 CFR 63.10885(b)(1)(ii)(C). The permittee shall identify which option in 40 CFR 63.10885(b) applies to each scrap provider, contract, or shipment.² **(40 CFR 63.10899(b)(2)(i), Consent Order AQD No. 4-2017)**

3. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
4. 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))**
5. 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))**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
7. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

See Appendix 8-2

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 ZZZZZ for Iron and Steel Foundries by the initial compliance date.² **(40 CFR Part 63, Subparts A and ZZZZZ, Consent Order AQD No. 4-2017)**

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

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

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3-2. Monitoring Requirements

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

Appendix 4-2. Recordkeeping

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 5-2. Testing Procedures

Specific testing requirement plans, procedures, and averaging times are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 6-2. Permits to Install

The following table lists any Permit to Install and/or Operate, that relate to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-B7013-2018. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6-2 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
115-16	All process equipment source-wide at both the Huron Casting, Inc. and Blue Diamond Steel Casting facilities including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EU-01, EU-02, EU-POURINGA, EU-03A, EU-03B, EU-TORCHES1-18, EU-05, EU-06, EU-07, EU-08, EU-09, EU-10A, EU-POURINGB, EU-MOLDLINEA, EU-MOLDLINEB, EU-MOLDLINEC, EU-TORCHES19-22, FG-POUR, FG-MOLDLINE, FG-MACTZZZZZ, FG-FACILITY, EU-NBFURNACE, EU-NBPOURANDCOOL, EU-NBCALCINER, EU-NBSAND, EU-NBMOLD, EU-SHELLFURNACE, EU-SHELLPOUR, EU-SHELLCOOL, EU-SHELLSAND,

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
		EU-SHELLCALCINER, EU-SHELLMOLD, EU-NBTORCHES, EU-SHELLTORCHES, EU-FINISHING, EU-SHELL2POUR, EU-SHELL2COOL, EU-SHELL2SAND, FG-BDSV01, FG-BDSV02, FG-BDSV03, FG-BDSV04, FG-BDSV05, FG-MACTZZZZZ

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-B7013-2018.

Permit to Install Number	ROP Revision Application Number / Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
89-19	201900145 / December 4, 2019	<p>This Minor Modification Application was to incorporate PTI No. 89-19 into the ROP. PTI No. 89-19 was to add two new shell molding machines to their existing molding line EU-MOLDLINE-C in Section 1 of the ROP. Some of the PTI changes also updated Conditions in Section 2 and Source-Wide Conditions in the ROP.</p> <p>Conditions were also updated to be consistent with similar Condition's in each table in each Emission Unit and Flexible Group in Section 2.</p> <p>The Company clarified that the no-bake furnace line (EU-NBFURNACE) consists of BH-01 and BH-22 for a total of 130,000 cfm of exhaust that is recirculated in plant to an area behind the furnace hoods.</p>	EU-NBFURNACE, EU-NBMOLD, FG-BDZV04, Source-Wide

Appendix 7-2. Emission Calculations

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

Appendix 8-2. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use the 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.