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

EFFECTIVE DATE: February 24, 2021

ISSUED TO:

Cadillac Castings Incorporated

State Registration Number (SRN): B2178

LOCATED AT

1500 Fourth Avenue, Cadillac, Wexford County, Michigan 49601

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B2178-2021

Expiration Date: February 24, 2026

Administratively Complete ROP Renewal Application Due Between:
August 24, 2024 and August 24, 2025

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-B2178-2021

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

Shane Nixon, Cadillac / Gaylord 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.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**

- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**

- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**

2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**

3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**

4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
   a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
   c. Inspect, at reasonable times, any of the following:
      i. Any stationary source.
      ii. Any emission unit.
      iii. Any equipment, including monitoring and air pollution control equipment.
      iv. Any work practices or operations regulated or required under the ROP.
   d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.

5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**

7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**

8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).[2] **(R 336.1370)**

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

Emission Limits

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

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

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

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).[2] **(R 336.2001)**

14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**

15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
    a. The date, location, time, and method of sampling or measurements.
    b. The dates the analyses of the samples were performed.
    c. The company or entity that performed the analyses of the samples.
    d. The analytical techniques or methods used.
    e. The results of the analyses.
    f. The related process operating conditions or parameters that existed at the time of sampling or measurement.

17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**

20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**

21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
    a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
    b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
    c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
    a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
    b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.

23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**

24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**

25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.[2] **(R 336.1912)**

Permit Shield

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

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

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

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
    a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
    b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
    c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
    d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
    e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**

29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**

31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**

32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**

33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.

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

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).

39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
    a. June 21, 1999,
    b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
    c. The date on which a regulated substance is first present above a threshold quantity in a process.

40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.

41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

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

Permit to Install (PTI)

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

44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.[2] **(R 336.1201(8), Section 5510 of Act 451)**

45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.[2] **(R 336.1219)**

46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.[2] **(R 336.1201(4))**

Footnotes:
[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).

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (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
EUALINE	Iron pouring line used to produce iron castings from molten iron using phenolic urethane cold box molds. Equipment includes a mold conveyor push off machine, breaking and sorting conveyor, sand belt, and iron pouring and cooling equipment. Emissions controlled by a regenerative thermal oxidizer (RTO). EUALINE has applicable SSM, CAM, O&M, MAP, and Preventative Maintenance plans.	05-30-1996 / 10-03-2011	FGMACT-EEEEE
EUALINEMOLD	A-line core and mold making process utilizing four Sutter mold machines to produce molds and mold cores for the metal pouring process in EUALINE. Emissions are controlled by two sulfuric acid scrubbers. EUALINEMOLD has applicable Preventative Maintenance plans.	12-19-2003 / 09-28-2009	NA
EUCOREMOLDMAKING	Catalyzed core making (core room) process using sand, binders and catalysts to produce cores for use in EUSPOGREENSAND of FGSPOLINE for iron castings production. Emissions are controlled by one sulfuric acid scrubber.	05-30-1996 / 12-10-2010 04-27-2016	NA
EUFINISHING	Metal finishing operations for removing flashing, oxides, and residual sand from castings using shot-blast and grinding machines. Also includes annealing ovens for heat treating castings and A-line finishing. Emissions controlled by three baghouses. EUFINISHING has applicable CAM and MAP plans.	05-30-1996	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUMELTING	Metal melting system consisting of an 84" water wall cupola with recuperative hot blast. The system includes three electric holding furnaces, a 5-ton desulfurization ladle and four tundish ladles. Also includes the cupola charging system. Cupola emissions controlled by an afterburner, Venturi Scrubber and a demister. Emissions from the desulfurization ladle are controlled by a baghouse. EUMELTING has applicable SSM, CAM, O&M, and MAP plans.	05-30-1996 / 01-14-2011	FGMACT-EEEEE
EUSPOPOURANDCOOL	FGSPOLINE pouring and cooling of molten iron using green sand molds and set cores. Equipment consists of a pouring station and covered conveyor for cooling. Emissions are exhausted uncontrolled from multiple stacks along the cooling line.	05-30-1996	FGSPOLINE
EUSPOGREENSAND	Green sand mold production line used to produce green sand molds for FGSPOLINE. Equipment includes Spomatic cope and drag machines, and sand preparation. Emissions are controlled by a wet scrubber and a baghouse. EUSPOGREENSAND has applicable CAM, MAP, and Preventative Maintenance plans.	05-30-1996	FGSPOLINE
EUSPOBREAKSORT	FGSPOLINE process used to remove iron parts from the green sand molds. Equipment includes the breaking and sorting line. Emissions are controlled by two baghouses. EUSPOBREAKSORT has applicable CAM, MAP, and Preventative Maintenance plans.	05-30-1996 09-11-2013	FGSPOLINE
EUSPOSHAKEOUT	FGSPOLINE process used to remove sand from cast parts and recover sand for the green sand mold process. Emissions are controlled by a wet scrubber. EUSPOSHAKEOUT has applicable CAM, MAP, and Preventative Maintenance plans.	05-30-1996	FGSPOLINE

EUALINE
EMISSION UNIT CONDITIONS

DESCRIPTION

Iron pouring line used to produce iron castings from molten iron using phenolic urethane cold box molds. Equipment includes a mold conveyor push off machine, breaking and sorting conveyor, sand belt, and iron pouring and cooling equipment. EUALINE has applicable SSM, CAM, O&M, MAP, and Preventative Maintenance plans.

Flexible Group ID: FGMACT-EEEEE

POLLUTION CONTROL EQUIPMENT

Regenerative Thermal Oxidizer (RTO)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	29.1 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC V.1 SC VI.8	**R 336.1205(1)(a)** **R 336.1205(3)** **R 336.2810** **40 CFR 52.21(j)**
2. PM10	5.6 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC V.1 SC VI.8	**R 336.1331** **R 336.1205(1)(a)** **R 336.1205(3)** **R 336.2810** **40 CFR 52.21(j)**
3. VOC	26.7 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC V.1 SC VI.8	**R 336.1702(c)** **R 336.1205(1)(a)** **R 336.1205(3)** **R 336.2810** **40 CFR 52.21(j)**
4. Lead	0.23 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC V.1 SC VI.8	**R 336.1205(1)(a)** **R 336.1205(3)** **R 336.2810** **40 CFR 52.21(j)**
5. Benzene	0.30 pph[1]	Hourly	EUALINE	SC V.1 SC VI.8	**R 336.1225**
6. Benzene	1.0 tpy[1]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC V.1 SC VI.8	**R 336.1225**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Metal, non-specific	67,000 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINE	SC VI.7	**R 336.1205(1)(a)** **R 336.1205(3)** **R 336.2810** **40 CFR 52.21(j)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUALINE unless the RTO is installed and operating properly.[2] **(R 336.1331, R 336.1702, R 336.1910)**

2. The permittee shall maintain a minimum temperature of 1,500 ºF in the RTO during operation of EUALINE.[2] **(R 336.1331, R 336.1702, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the RTO with a temperature monitor. **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of VOCs, PM-10, CO, Benzene, and Lead emissions from EUALINE, by testing at owner's expense, in accordance with department requirements, will be required once every five years.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM10	40 CFR Part 51, Appendix M, Methods 17 and 202
CO	40 CFR Part 60, Appendix A, Method 10
VOC	40 CFR Part 60, Appendix A, Method 25A
Lead	40 CFR Part 60, Appendix A, Method 29
Benzene	40 CFR Part 60, Appendix A, Method 18

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved test plan. The AQD must approve the final plan prior to testing, including any modifications to the method in the test plan that are proposed after initial submittal. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.2001(5))**

3. No less than 60 days prior to testing, a compete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of VOC, PM-10, CO, Benzene, and Lead emissions includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.2001(3), R 336.2001(5))**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days before performance tests are conducted of the time and place of the performance test. **(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. Verification of visible emissions from the RTO shall be performed and documented once daily by non-certified visible emissions readings. If visible emissions are present, the following information must be recorded.[2] **(R 336.1301(1)(c))**
   a. Color of the emissions.
   b. Whether the emissions are representative of normal operations.
   c. If not normal, the cause of the abnormal emissions.
   d. Duration of abnormal emission incident.
   e. Corrective actions taken.

2. The permittee shall monitor and record the temperature in the RTO on a continuous basis in a manner and with instrumentation acceptable to the AQD District Supervisor.[2] **(R 336.1331, R 336.1702, R 336.1910, 40 CFR 64.6(c)(1)(iii))**

3. The permittee shall utilize RTO temperature readings as an indicator of RTO performance and proper function. The temperature indicating proper function is 1500 ºF or greater. **(40 CFR 64.6(c)(1)(i and ii))**

4. The permittee shall use the temperature of the RTO to assure compliance with the CO and VOC limit. An excursion for CO and VOC shall be an RTO temperature below 1500 ºF. **(40 CFR 64.6(c)(2))**

5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range. **(40 CFR 64.7(d))**

6. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

7. The permittee shall maintain monthly and 12-month rolling time period records, in a manner acceptable to the District Supervisor, of the amount of metal poured.[2] **(40 CFR 52.21)**

8. The permittee shall maintain records, in a format acceptable to the district supervisor, of 12-month rolling emission rates of CO, PM10, VOC, Benzene, and Pb calculated in the appropriate units and using emission factors derived from the most recent stack test data and approved by the AQD District Supervisor.[2] **(40 CFR 52.21)**

9. The permittee shall, at all times, maintain the temperature monitoring device on the RTO. This Includes, but is not limited to, maintaining necessary parts for routine repairs of the equipment. **(40 CFR 64.7(b))**

10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV007	72[2]	40[2]	**R 336.1224** **R 336.1225** **40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall develop and maintain a preventative maintenance plan for the control equipment contained within EUALINE. This plan shall be reviewed at least annually and updated as needed.[2] **(R 336.1911)**

2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

3. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

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

EUALINEMOLD
EMISSION UNIT CONDITIONS

DESCRIPTION

A-line core and mold making process utilizing four Sutter mold machines to produce molds and mold cores for the metal pouring process in EUALINE. EUALINEMOLD has applicable Preventative Maintenance plans.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Two sulfuric acid gas scrubbers (for control of amine catalyst only).

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	27.5 pph[2]	Hourly	EUALINEMOLD	SC VI.2	**R 336.1702**
2. VOC	35.3 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINEMOLD	SC VI.4	**R 336.1702**
3. Amine Catalyst	0.07 pph[1]	Hourly	EUALINEMOLD	SC V.1 SC VI.3	**R 336.1225** **R 336.1226(a)** **R 336.1227**
4. Amine Catalyst	2.34 mg per cubic meter corrected to 70 ºF and 29.92 inches Hg[1]	Hourly	EUALINEMOLD	SC V.1	**R 336.1227**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sand	41.5 tons/hr[2]	Monthly Average	EUALINEMOLD	SC VI.2	**R 336.1205**
2. Sand	106,000 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUALINEMOLD	SC VI.2	**R 336.1205**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall maintain a minimum liquid flow rate of 50 gallons per minute through each of the scrubbers and a maximum liquid pH of 5 in the sulfuric acid scrubber liquid.[1] **(R 336.1227)**

2. The permittee shall not operate EUALINEMOLD unless the two sulfuric acid scrubbers are installed and operating properly.[2] **(R 336.1910)**

3. The permittee shall not use triethylamine (TEA) catalyst in EUALINEMOLD.[1] **(R 336.1227)**

V. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each scrubber with a flow rate monitor. **(R 336.1910)**

2. The permittee shall equip each scrubber with a pH monitor. **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of amine catalyst emissions from EUALINEMOLD, by testing at owner's expense, in accordance with Department requirements, will be required once every five years.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. Testing shall be performed using USEPA Method 18 as listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to Method 18, may be specified in an AQD-approved test plan. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, which are postmarked at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. All stack testing protocols must be approved by the AQD prior to testing. The permittee must submit a complete report of the test results, in a format approved by the AQD, to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.2001(5))**

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))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record on a continuous basis during operation of the process, the pH and liquid flow rates of the scrubbers in a manner and with instrumentation acceptable to the AQD District Supervisor.[1] **(R 336.1227)**

2. The permittee shall maintain the following records:[2] **(R 336.1702, R336.1227)**
   a. Hours of operation of the process.
   b. Amount of sand processed in tons per hour based upon a monthly average and tons per year per a 12-month rolling time period as determined at the end of each calendar month.
   c. Amount of resin used per 12-month rolling time period as determined per a monthly average at the end of each calendar month.
   d. Pound per hour VOC emission rate calculations, determined per a monthly average, using approved emission factors.
   e. Pound per hour amine catalyst emission rate calculations, determined per a monthly average, using emission factors derived from the most recent stack testing, for each specific amine catalyst used.

3. The permittee shall calculate and maintain records of monthly and 12-month rolling time period emissions as determined at the end of each calendar month for amine catalyst from the process using emission factors derived from the most recent stack testing.[2] **(R 336.1702, R 336.1227)**

4. The permittee shall calculate and maintain records of monthly and 12-month rolling time period emissions as determined at the end of each calendar month for VOC from the process using emission factors approved by the AQD District Supervisor.[2] **(R 336.1702, R 336.1227)**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV019	30[1]	33[1]	**R 336.1227**
2. SV020	30[1]	33[1]	**R 336.1227**

IX. OTHER REQUIREMENT(S)

1. The permittee shall develop and maintain a Preventative Maintenance Plan for the control equipment contained within EUALINEMOLD. This plan shall be reviewed at least annually and updated as needed.[2] **(R 336.1911)**

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).

EUCOREMOLDMAKING
EMISSION UNIT CONDITIONS

DESCRIPTION

Catalyzed core making (core room) process using sand, binders and catalysts to produce cores for use in EUSPOGREENSAND of FGSPOLINE for iron castings production.

Equipment used includes:

- 3 Chalco 315 Core Machines
- 1 Glue Machine
- 1 Mixer
- 1 Redford CB-16 Core Machine
- 2 Redford HCB-22 Core Machines
- 1 Laempe Core Machine
- 3 Sand Heaters
- 3 Sand Tanks
- 1 Shalco 1520 Pin Bonder
- 1 Sutter 1742 Core Machine
- 8 Sutter 1632 Core Machines

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

One sulfuric acid scrubber (Dakota DI-68) for control of amine catalyst emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	79 pph[2]	Hourly	EUCOREMOLDMAKING	SC VI.2	**R 336.1702(c)**
2. VOC	14.93 tons/month[2]	Monthly average	EUCOREMOLDMAKING	SC VI.4	**R 336.1702(c)**
3. VOC	179.2 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUCOREMOLDMAKING	SC VI.4	**R 336.1702(c)**
4. Visible Emissions	0% opacity[2]	6-minute average	EUCOREMOLDMAKING	SC VI.7	**R 336.1301(1)(c)**
5. Amine Catalyst	0.01 pph[1]	Hourly	EUCOREMOLDMAKING	SC V.1 SCVI.2	**R 336.1225(1)**
6. Amine Catalyst	0.044 tpy[1]	12-month rolling time period basis as determined at the end of each calendar month	EUCOREMOLDMAKING	SC VI.3	**R 336.1225(1)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The pH of the scrubbing liquor shall not exceed 5.[2] **(R 336.1910)**

2. The permittee shall not operate EUCOREMOLDMAKING unless the wet scrubber is installed, operating properly, and a minimum flow rate to the scrubber of 50 gpm is maintained.[2] **(R 336.1910)**

3. The permittee shall not use triethylamine (TEA) catalyst in EUCOREMOLDMAKING.[1] **(R 336.1227)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the scrubber with a flow rate monitor.[2] **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of amine catalyst emissions from EUCOREMOLDMAKING, by testing at owner's expense, in accordance with Department requirements, will be required once every five years.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. Testing shall be performed using USEPA Method 18 as listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to Method 18, may be specified in an AQD-approved test plan. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days before performance tests are conducted of the time and place of the performance test.[2] **(R 336.2001(4))**

4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, which are postmarked at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. All stack testing protocols must be approved by the AQD prior to testing. The permittee must submit a complete report of the test results, in a format approved by the AQD, to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test[2]. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.2001(5))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of the amount of VOC containing raw materials used in the process on a monthly basis. VOC containing raw materials include: resins, release agents, core wash, and amine catalyst.[2] **(R 336.1702)**

2. The permittee shall maintain the following records:[2] **(R 336.1702, R 336.1227)**
   a. Hours of operation of the process.
   b. Pound per hour VOC emission rate calculations, determined per a monthly average, using approved emission factors.
   c. Pound per hour amine catalyst emission rate calculations, determined per a monthly average, using emission factors derived from the most recent stack testing.

3. The permittee shall calculate and maintain records of monthly and 12-month rolling time period emissions as determined at the end of each calendar month for all amine catalysts combined from the process using emission factors derived from the most recent stack testing.[2] **(R 336.1702, R 336.1227)**

4. The permittee shall calculate and maintain records of monthly and 12-month rolling time period emissions as determined at the end of each calendar month for VOC from the process using emission factors approved by the AQD District Supervisor.[2] **(R 336.1702, R 336.1227)**

5. The permittee shall monitor and record the pH of the scrubbing liquor from the scrubber on a daily basis in a manner and with instrumentation acceptable to the AQD District Supervisor.[2] **(R 336.1910)**

6. The permittee shall monitor continuously and record daily the scrubber liquid flow rate in a manner and with instrumentation acceptable to the AQD District Supervisor.[2] **(R 336.1910)**

7. Verification of visible emissions from EUCOREMOLDMAKING shall be performed and documented once daily by non-certified visible emissions readings. If visible emissions are present, the following information must be recorded:[2] **(R 336.1301(1)(c))**
   a. Color of the emissions.
   b. Whether the emissions are representative of normal operations.
   c. If not normal, the cause of the abnormal emissions.
   d. Duration of abnormal emission incident.
   e. Corrective actions taken.

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV018	28[1]	60[1]	**R 336.1227**

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).

EUFINISHING
EMISSION UNIT CONDITIONS

DESCRIPTION

Metal finishing operations for removing flashing, oxides, and residual sand from castings using shot-blast and grinding machines. Also includes annealing ovens for heat treating castings and A-line finishing. EUFINISHING has applicable CAM and MAP plans.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

40K Baghouse (seasonally vented to the in plant atmosphere through a HEPA filter)
Waltz Holst Baghouse (seasonally vented to the in plant atmosphere through a HEPA filter)
Sly Baghouse (permanently vented to the in plant atmosphere through a HEPA filter)

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.03 lbs Per 1,000 lbs of exhaust gases[2]	Hourly	EUFINISHING	SC V.1	**R 336.1331(1)(c)**
2. PM	7 pph[2]	Hourly	EUFINISHING	SC V.1	**R 336.1331(1)(c)**
3. PM	2.5 tons per month average[2]	12-month rolling time period	EUFINISHING	SC VI.1	**R 336.1331(1)(c)**
4. PM	29.8 tpy[2]	Calendar year	EUFINISHING	SC VI.1	**R 336.1331(1)(c)**
5. Visible Emissions	5% opacity[2]	6-minute average	EUFINISHING	SC VI.3	**R 336.1301(1)(c)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the process unless the dust collectors and the High Efficiency Particulate Air Filtration system are installed and operating properly.[2] **(R 336.1910)**

2. The permittee shall utilize pressure drop as an indicator of the proper functioning of the baghouses. This includes a pressure drop across each baghouse in the following ranges: **(40 CFR 64.6(c)(1)(i and ii), R 336.1910, R 336.1213(3))**
   a. 40,000 CFM Baghouse 2 – 6 inches of water gauge
   b. 12,000 CFM Baghouse 1 – 8 inches of water gauge
   c. Sly Baghouse 1 – 7 inches of water gauge

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip all baghouses associated with EUFINISHING with differential pressure gauges. **(R 336.1213(3), R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of particulate emissions from EUFINISHING, by testing at owner's expense, in accordance with Department requirements, will be required once every five years. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. Testing shall be performed using USEPA Method 18 as listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to Method 18, may be specified in an AQD-approved test plan. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days before performance tests are conducted of the time and place of the performance test.[2] **(R 336.2001(4))**

4. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, which are postmarked at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. All stack testing protocols must be approved by the AQD prior to testing. The permittee must submit a complete report of the test results, in a format approved by the AQD, to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, R 336.2001(5))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall calculate and maintain records of average monthly (based on 12-month rolling time period) and calendar year particulate emissions from the process using emission factors derived from the most recent stack testing and approved by the AQD District Supervisor. **(R 336.1213(3))**

2. The permittee shall continuously monitor each of the baghouse differential pressures and record the differential pressure readings once per day during production operations as an indicator of proper operation of the control device. The differential pressure monitors shall be calibrated in accordance with the monitoring equipment manufacturer's requirements or recommendations for calibration. **(R 336.1213(3), 40 CFR 64.6(c)(1)(iii))**

3. Verification of visible emissions from EUFINISHING, for processes vented to the outside atmosphere, shall be performed and documented once daily by non-certified visible emissions readings. If visible emissions are present, the following information must be recorded: **(R 336.1301(1)(c), R 336.1213(3))**
   a. Color of the emissions.
   b. Whether the emissions are representative of normal operations.
   c. If not normal, the cause of the abnormal emissions.
   d. Duration of abnormal emission incident.
   e. Corrective actions taken.

4. The permittee shall use the pressure drop on each of the baghouses to assure compliance with the particulate matter limits. An excursion shall be more than one reading out of range per baghouse per month. This condition does not affect compliance with R 336.1301. **(40 CFR 64.6(c)(2))**

5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions.). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range or emission limit. **(40 CFR 64.7(d))**

6. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

7. The permittee shall properly maintain the monitoring system including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**

8. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV001	45[2]	35[2]	**R 336.1331(1)(c)**

IX. OTHER REQUIREMENT(S)

1. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

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

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

EUMELTING
EMISSION UNIT CONDITIONS

DESCRIPTION

Metal Melting System consisting of an 84 inch water wall cupola with recuperative hot blast. The system includes three electric holding furnaces, a 5-ton desulfurization ladle and four tundish ladles. Also includes the cupola charging system. EUMELTING has applicable SSM, CAM, O&M, and MAP plans.

Flexible Group ID: FGMACT-EEEEE

POLLUTION CONTROL EQUIPMENT

Cupola: Afterburner, Venturi Scrubber, and a Demister.
Desulfurization ladle: Baghouse.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	18.0 pph[2]	Hourly	EUMELTING	SC V.1	**R 336.1331(1)(c)**
2. PM	3.17 tons/month[2]	Monthly Average	EUMELTING	SC VI.13	**R 336.1331(1)(c)**
3. PM	38.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.13	**R 336.1331(1)(c)**
4. PM	0.38 pound/ton of metal charged [2]	Daily average	EUMELTING	SC VI.13	**R 336.1331(1)(c)**
5. CO	375.0 pph[2]	Hourly	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**
6. CO	66.7 tons/month[2]	Monthly Average	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
7. CO	800.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
8. CO	8.0 pounds/ton of metal charged [2]	Daily average	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
9. SO_2	17.7 pph[2]	Hourly	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**
10. SO_2	3.2 tons/month[2]	Monthly Average	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**
11. SO_2	38.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
12. SO_2	0.38 pounds/ton of metal charged [2]	Daily average	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
13. VOC	3.6 pph[2]	Hourly	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
14. VOC	0.65 tons/month[2]	Monthly Average	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**
15. VOC	7.74 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
16. VOC	0.12 lbs per ton of metal charged [2]	Daily average	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
17. Manganese	0.62 pph[2]	Hourly	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. Manganese	1.35 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.14	**40 CFR 52.21(c)&(d)**
19. Lead	0.3 pph[2]	Hourly	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
20. Lead	0.054 tons/month[2]	Monthly Average	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
21. Lead	0.65 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.13	**40 CFR 52.21(c)&(d)**
22. Lead	0.0065 pounds/ton of metal charged [2]	Daily average	EUMELTING	SC V.1	**40 CFR 52.21(c)&(d)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Metal charged	16,667 tons/month[2]	Monthly Average	EUMELTING	SC VI.11	**40 CFR 52.21(c)&(d)**
2. Metal charged	200,000 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUMELTING	SC VI.11	**40 CFR 52.21(c)&(d)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the cupola unless the Venturi Scrubber system and afterburner are installed and operating properly.[2] **(R 336.1910)**

2. The permittee shall not operate the desulfurization ladle unless the baghouse is installed and operating properly in accordance with the approved MAP.[2] **(R 336.1910)**

3. The permittee shall not operate EUMELTING unless a minimum temperature of 1,350 ºF and a minimum retention time of 0.5 second in the afterburner are maintained.[1] **(R 336.1224(1))**

4. For EUMELTING, the permittee shall maintain a minimum pressure drop of 42 inches water gauge across the Venturi Scrubber and a minimum water flow rate of 115 gallons per minute to this system.[2] **(R 336.1910)**

5. The permittee shall implement and maintain a MAP approved by the District Supervisor. If the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall revise the MAP within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment and add-on air pollution control devices during similar malfunction events, and a program for corrective action for such events.[2] **(R 336.1910, R 336.1911, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the cupola with a device to measure the cupola off-gas temperature.[2] **(R 336.1910)**

2. The permittee shall equip the Venturi Scrubber with a differential pressure gauge.[2] **(R 336.1910)**

3. The permittee shall equip the scrubber with a flow monitor.[2] **(R 336.1910)**

4. The permittee shall equip the desulfurization ladle baghouse with a differential pressure gauge.[2] **(R 336.1910)**

V. TESTING/SAMPLING

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

1. Verification of carbon monoxide, lead, particulate matter, manganese, sulfur dioxide, and VOC emissions from the cupola, by testing at owner's expense, in accordance with Department requirements, will be required once every five years.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, which are postmarked at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. All stack testing protocols must be approved by the AQD prior to testing. The permittee must submit a complete report of the test results, in a format approved by the AQD, to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[2] **(R 336.2001, R 336.2003, R 336.2004, R 336.2001(5))**

3. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A, Method 29
CO	40 CFR Part 60, Appendix A, Method 10
SO2	40 CFR Part 60, Appendix A, Method 6C
VOC	40 CFR Part 60, Appendix A, Method 25A
Lead	40 CFR Part 60, Appendix A, Method 29
Manganese	40 CFR Part 60, Appendix A, Method 29

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved test plan. The AQD must approve the final plan prior to testing, including any modifications to the method in the test plan that are proposed after initial submittal. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days before performance tests are conducted of the time and place of the performance test.[2] **(R 336.2001(4))**

See Appendix 5

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the temperature of the cupola off-gas on a continuous basis in a manner and with instrumentation acceptable to the AQD.[2] **(40 CFR 52.21(c) & (d), 40 CFR 64.6(c)(iii))**

2. The permittee shall utilize the cupola off-gas temperature as an indicator of the proper functioning of the afterburner. Proper operation includes a temperature of 1350 ºF or greater. The temperature monitor shall be calibrated in accordance with the monitoring equipment manufacturer's requirements or recommendations for calibration. **(40 CFR 64.6(c)(1)(i and ii))**

3. The permittee shall use the cupola off-gas temperature to assure compliance with the carbon monoxide limit. An excursion for carbon monoxide shall be the temperature of the afterburner falling below 1350 ºF. **(40 CFR 64.6(2))**

4. The permittee shall monitor and record the pressure drop across the Venturi Scrubber on an hourly basis in a manner and with instrumentation acceptable to the AQD.[2] **(40 CFR 52.21(c) & (d), 40 CFR 64.6(c)(iii))**

5. The permittee shall utilize the pressure drop across the Venturi Scrubber as an indicator of the proper function of the Venturi Scrubber. The pressure drop that defines proper function of the Venturi Scrubber is greater than 42 inches. The differential pressure monitor shall be calibrated in accordance with the monitoring equipment manufacturer's requirements or recommendations for calibration. **(40 CFR 64.6(c)(1)(i and ii))**

6. The permittee shall use the pressure drop across the Venturi Scrubber to assure compliance with the particulate matter limits. An excursion shall be more than one hourly reading less than 42 inches per month. **(40 CFR 64.6(c)(2))**

7. The permittee shall monitor and record the water flow rate through the Venturi Scrubber on an hourly basis in a manner and with instrumentation acceptable to the AQD.[2] **(40 CFR 52.21(c) & (d), 40 CFR 64.6(c)(iii)))**

8. The permittee shall utilize the water flow through the Venturi Scrubber as an indicator of the proper function of the Venturi Scrubber. The water flow rate that defines proper function of the Venturi Scrubber is greater than 115 gallons per minute. The flow rate monitor shall be calibrated in accordance with the monitoring equipment manufacturer's requirements or recommendations for calibration. **(40 CFR 64.6(c)(1)(i and ii))**

9. The permittee shall use the water flow through the Venturi Scrubber to assure compliance with the particulate matter limits. An excursion shall be more than one hourly reading less than 115 gallons per minute per month. **(40 CFR 64.6(c)(2))**

10. The permittee shall record the number and weight of charges added to the cupola on a production day basis when the cupola is in operation and melting.[2] **(40 CFR 52.21(c) & (d))**

11. The permittee shall calculate and maintain records of the tons of metal charged per month on a 12-month rolling time period and per year basis.[2] **(40 CFR 52.21(c) & (d))**

12. The permittee shall record the process hours of operation on a production day basis when the cupola is in operation and melting metal.[2] **(40 CFR 52.21(c) & (d))**

13. The permittee shall calculate and maintain records of PM, CO, SO2, VOC, and Lead emission rates as pounds per ton of metal charged, monthly emission rates based on a 12-month rolling time period, and annual emission rates using emission factors derived from the most recent stack testing and approved by the AQD District Supervisor.[2] **(40 CFR 52.21(c) & (d))**

14. The permittee shall calculate and maintain records of manganese annual emission rates using emission factors derived from the most recent stack testing and acceptable to the AQD District Supervisor.[2] **(40 CFR 52.21(c) & (d))**

15. The permittee shall continuously monitor the desulfurization ladle baghouse differential pressure and record the differential pressure readings once per day during production operations.[2] **(R 336.1910)**

16. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range or emission limit. **(40 CFR 64.7(d))**

17. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**

18. The permittee shall, at all time, maintain the afterburner temperature monitor and recording device, including, but not limited to, maintaining necessary parts for routine repairs of the equipment. **(40 CFR 64.7(b))**

19. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV011	NA	117[2]	**40 CFR 52.21(c)**

IX. OTHER REQUIREMENT(S)

1. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

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

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

D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGMACT-EEEEE	Processes subject to 40 CFR Part 63, Subpart EEEEE. The affected source is the existing iron foundry, that is a major source of hazardous air pollutant (HAP) emissions. An existing affected source is a source that commences construction or reconstruction before December 23, 2002. The regulations cover emissions from metal melting furnaces, pouring stations, mold and core making lines, and fugitive emissions from the foundry operations. FGMACT-EEEEE has applicable O&M, and SSM Plans.	EUALINE EUMELTING
FGSPOLINE	Process used to produce iron castings from molten iron using green sand molds and set cores. Equipment includes a Spomatic mold line, iron pouring and cooling, green sand system, and sorting and shakeout. FGSPOLINE has applicable CAM, MAP, and Preventative Maintenance plans for EUSPOGREENSAND, EUSPOBREAKSORT, and EUSPOSHAKEOUT. EUSPOGREENSAND, EUSPOBREAKSORT and EUSPOSHAKEOUT are subject to CAM for particulate matter.	EUSPOPOURANDCOOL EUSPOGREENSAND EUSPOBREAKSORT EUSPOSHAKEOUT
FGCOLDCLEANERS	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	NA

FGMACT-EEEEE
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Processes subject to 40 CFR Part 63, Subpart EEEEE. The affected source is the existing iron foundry, that is a major source of hazardous air pollutant (HAP) emissions. An existing affected source is a source that commences construction or reconstruction before December 23, 2002. The regulations cover emissions from metal melting furnaces, pouring stations, mold and core making lines, and fugitive emissions from the foundry operations. FGMACT-EEEEE has applicable O&M and SSM Plans.

Emission Units: EUALINE, EUMELTING

POLLUTION CONTROL EQUIPMENT

EUALINE: Regenerative Thermal Oxidizer

EUMELTING: Afterburner, Venturi Scrubber, Demister, and Baghouse.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity (fugitive)	20% 6-min average, except for one 6-min average/ hr that does not exceed 27%	6-Minute Average	Each Building or Structure Housing any Iron or Steel Foundry Emission Source at FGMACT-EEEEE	SC V.1	**40 CFR 63.7690(a)(7)**
2. PM OR Total Metal HAP	0.006 gr/dscf or 0.10 pound per ton of metal charged ---OR--- 0.0005 gr/dscf or 0.008 pound per ton of metal charged	Hourly	EUMELTING	SC V.2 SC VI.1	**40 CFR 63.7690(a)(2)(i) or (ii) or (iii) or (iv)**
3. Volatile Organic HAP (VOHAP)	20 ppmv corrected to 10% oxygen	Hourly	EUMELTING	SC V.2 SC VI.1 SC VI.2	**40 CFR 63.7690(a)(8)**
4. PM OR Total Metal HAP	0.010 gr/dscf OR 0.0008 gr/dscf	Hourly	EUALINE	SC V.2	**40 CFR 63.7690(a)(5)(i) or (ii)**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall maintain operation and maintenance (O&M) plans for each capture and control system and control device for an emission unit subject to an emission limit as described in 40 CFR 63.7710. The plans shall include, but is not limited to, the following:
   a. Monthly inspections of the equipment that is important to the performance of the total capture system. **(40 CFR 63.7710(b)(1))**
   b. Operating limits for each capture system for an emission unit subject to a limit for VOHAP or TEA. **(40 CFR 63.7710(b)(2))**
   c. Preventative maintenance plan for each control device, including a schedule. **(40 CFR 63.7710(b)(3))**
   d. A site-specific monitoring plan for each bag leak detection system. **(40 CFR 63.7710(b)(4))**
   e. Corrective action plan for each baghouse. **(40 CFR 63.7710(b)(5))**
   f. Procedures for igniting gases from mold vents. **(40 CFR 63.7710(b)(6))**

2. For each capture system, wet scrubber, acid wet scrubber, or combustion device, the permittee shall establish site-specific operating limits in the O&M plans according to the procedures specified in 40 CFR 63.7733. **(40 CFR 63.7733)**

3. The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3). This plan must address the startup, shutdown and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The SSM plan must also specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola. The permittee shall operate in accordance with the SSM plan. **(40 CFR 63.7720(c), 40 CFR 63.6(e)(3))**

4. For each segregated scrap storage area, bin or pile, the permittee shall prepare and operate at all times according to a written certification that the facility purchases and uses only charge material that does not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics or organic liquids. Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification. **(40 CFR 63.7700(a), 40 CFR 63.7700(b))**

   AND/OR

   For each segregated scrap storage area, bin or pile, the permittee shall prepare and operate according to a written plan for the selection and inspection of iron and steel scrap as specified in 40 CFR 63.7700(c). **(40 CFR 63.7700(a), 40 CFR 63.7700(c))**

5. For EUMELTING, the permittee shall maintain the 3-hour average pressure drop and water flow rate, of each wet scrubber controlling PM or Total Metal HAP, at or above the minimum levels established during the initial or subsequent performance test. **(40 CFR 63.7690(b)(2))**

6. For EUMELTING, the permittee shall maintain the 15-minute average combustion zone temperature at or above 1300 degrees Fahrenheit. Periods when the cupola is off-blast and for 15 minutes after going on-blast from an off-blast condition, are not included in the 15-minute average. **(40 63.7690(b)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate an emission source subject to an emission limit or standard for VOHAP unless the associated capture and control system is installed, operated and maintained in accordance with the approved operation and maintenance (O&M) plan. **(40 CFR 63.7690(b), 40 CFR 63.7710)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct a performance test to demonstrate compliance with the opacity limit in SC I.1 (40 CFR 63.7690(a)(7)), following the test methods and procedures in 40 CFR 63.7732(d). Compliance testing shall be conducted no less frequently than every 6 months. **(40 CFR 63.7730(a), 40 CFR 63.7731(b))**

2. The permittee shall conduct performance testing to demonstrate compliance with applicable PM, Total Metal HAP, and VOHAP emission rates from FGMACT-EEEEE, no less frequently than every 5 years. Testing shall be conducted according to the requirements in 40 CFR 63.7(e)(1), following the test methods and procedures in 40 CFR 63.7732(b), (c), (e), (f), (g) and (h). **(40 CFR 63.7730(a), 40 CFR 63.7731(a))**

   An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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

VI. MONITORING/RECORDKEEPING

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

1. For EUMELTING, the permittee shall install, operate, and maintain a continuous parameter monitoring system (CPMS) for each capture and control system for emission units subject to the PM or Total Metal HAP emission limitation, to measure and record the pressure drop and scrubber water flow rate according to the requirements in 40 CFR 63.7741(c). **(40 CFR 63.7740(a), 40 CFR 63.7740(c), 40 CFR 63.7741(c))**

2. For EUMELTING, the permittee shall install, operate, and maintain a continuous parameter monitoring system (CPMS) for each combustion device for emission units subject to the VOHAP emission limitations, to measure and record the combustion zone temperature according to the requirements in 40 CFR 63.7741(d). **(40 CFR 63.7740(a), 40 CFR 63.7740(d), 40 CFR 63.7741(d))**

3. For EUMELTING, the permittee shall install, operate and maintain a continuous parameter monitoring system (CPMS) for each capture system (wet scrubber, combustion device, or wet acid scrubber) subject to an operating limit in 40 CFR 63.7690(b)(1), according to the requirements in 40 CFR 63.7740(a)(1) and (2) and 40 CFR 63.7741(a). **(40 CFR 63.7740(a), 40 CFR 63.7741(a))**

4. The permittee shall operate each CPMS according to the requirements of 40 CFR 63.7741(f)(1) through (3). **(40 CFR 63.7741(f))**

5. The permittee shall monitor and collect data to demonstrate continuous compliance in accordance with 40 CFR 63.7742. **(40 CFR 63.7742)**

6. The permittee shall demonstrate continuous compliance with all applicable emission limitations in accordance with 40 CFR 63.7743. **(40 CFR 63.7743)**

7. The permittee shall maintain records that document continuous compliance with the requirements of 40 CFR 63.7700(b) or (c) as specified in 40 CFR 63.7744(a). **(40 CFR 63.7744)**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit applicable notifications specified in 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e),40 CFR 63.8(f)(4) through (6), and 40 CFR 63.9(b) through (h) for an initial notification, a notification of intent to conduct a performance test, and a notification of compliance status as specified in 40 CFR 63.7750. **(40 CFR 63.7750)**

5. The permittee shall submit all semiannual compliance reports and semiannual reports of monitoring and deviations from any emissions limitation or operation and maintenance requirement as required by 40 CFR 63.7751(a), (b), and (d). **(40 CFR 63.7751 (a), (b) & (d))**

6. If a startup, shutdown, or malfunction occurs during the semiannual reporting period, that is not consistent with the SSM plan, the permittee shall submit an immediate SSM report according to the requirements of 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.10(d)(5)(ii), 40 CFR 63.7751(c))**

7. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. **(R 336.2001(3))**

8. 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))**

9. 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), 40 CFR 63.7(g))**

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and EEEEE for Iron and Steel Foundries. **(40 CFR Part 63, Subparts A and EEEEE)**

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).

FGSPOLINE
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Process used to produce iron castings from molten iron using green sand molds and set cores. Equipment includes a Spomatic mold line, iron pouring and cooling, green sand system, and sorting and shakeout. FGSPOLINE has applicable CAM, MAP, and Preventative Maintenance plans for EUSPOGREENSAND, EUSPOBREAKSORT, and EUSPOSHAKEOUT. EUSPOGREENSAND, EUSPOBREAKSORT and EUSPOSHAKEOUT are subject to CAM for particulate matter.

Emission Units: EUSPOPOURANDCOOL, EUSPOGREENSAND, EUSPOBREAKSORT, EUSPOSHAKEOUT

POLLUTION CONTROL EQUIPMENT

EUSPOGREENSAND: Carter Day baghouse, North Multiwash scrubber
EUSPOBREAKSORT: #1 80K baghouse, #2 80K baghouse
EUSPOSHAKEOUT: South Multiwash scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring Testing Method	Underlying Applicable Requirements
1. CO	2.78 lbs per ton of metal charged[2]	Monthly	FGSPOLINE	SC V.1 SC VI.1 SC VI.2	**40 CFR 52.21(d)**
2. CO	250 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	FGSPOLINE	SC VI.2	**40 CFR 52.21(d)**
3. VOC	60.0 pph[2]	Hourly	FGSPOLINE	SC V.1	**R 336.1702(a)**
4. VOC	107.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	FGSPOLINE	SC VI.2	**R 336.1702(a)**
5. PM	0.07 lbs per ton of metal processed [2]	Hourly	EUSPOPOURANDCOOL	SC V.1 SC VI.2	**R 336.1331(1)(c)**
6. PM	6.50 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUSPOPOURANDCOOL	SC VI.2	**R 336.1331(1)(c)**
7. Lead	4.4×10^{-5} lb per ton of iron poured [2]	Monthly	EUSPOPOURANDCOOL	SC V.1 SC VI.1 SC VI.2	**R 336.1205(1)(a)**
8. Lead	7.92 lb per year[2]	12-month rolling time period basis as determined at the end of each calendar month	EUSPOPOURANDCOOL	SC VI.2	**R 336.1205(1)(a)**
9. PM	0.36 lbs per ton of metal charged [2]	Hourly	EUSPOGREENSAND	SC V.1 SC VI.2	**R 336.1331(1)(c)**
10. PM	32.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUSPOGREENSAND	SC VI.2	**R 336.1331(1)(c)**
11. PM	0.27 lbs per ton of metal charged	Hourly	EUSPOBREAKSORT	SC V.1 SC VI.2	**R 336.1331(1)(c)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring Testing Method	Underlying Applicable Requirements
12. PM	24.0 tpy	12-month rolling time period basis as determined at the end of each calendar month	EUSPOBREAKSORT	SC VI.2	**R 336.1331(1)(c)**
13. PM	0.27 lbs per ton of metal charged [2]	Hourly	EUSPOSHAKEOUT	SC V.1 SC VI.2	**R 336.1331(1)(c)**
14. PM	24.0 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	EUSPOSHAKEOUT	SC VI.2	**R 336.1331(1)(c)**

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Metal poured, Non Specific	180,000 tpy[2]	12-month rolling time period basis as determined at the end of each calendar month	FGSPOLINE	SC VI.1	**R 336.1205(1)(a)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall maintain a minimum average hourly pressure drop across each scrubber of 7 inches water gauge or the average of pressure drops derived from testing, whichever is greater.[2] **(R 336.1331, R 336.1702, R 336.1910)**

2. The permittee shall utilize pressure drop of baghouses to determine proper operation of this equipment and ensure compliance with the PM limits. This includes a pressure drop across each baghouse in the following ranges:[2] **(R 336.1331, R 336.1702, R 336.1910, 40 CFR 64.6(c)(1)(i and ii))**
   a. Carter Day Baghouse 1.5 – 5 inches of water, gauge
   b. 80,000 CFM Baghouse #1 1 – 10 inches of water, gauge
   c. 80,000 CFM Baghouse #2 1 – 9 inches of water, gauge

3. The permittee shall utilize pressure drop and flow rates of scrubbers to determine proper operation of this equipment. This includes pressure drops and scrubber flow rates in the following ranges: **(R 336.1910, 40 CFR 64.6(c)(1)(i and ii), R 336.1213(3))**
   a. North Multiwash Scrubber Greater than 150 gallons per minute
   b. South Multiwash Scrubber Greater than 150 gallons per minute
   c. North Multiwash Scrubber Greater than 7 inches of water, gauge
   d. South Multiwash Scrubber Greater than 7 inches of water, gauge

4. The permittee shall not operate FGSPOLINE unless the associated baghouses and the wet scrubbers are installed and operating properly. Proper operation includes maintaining pressure drop ranges and flow rates as listed in SC III.1, 2, and 3.[2] **(R 336.1331, R 336.1702, R 336.1910)**

5. The permittee shall maintain a minimum water flow rate of 150 gallons per minute through the scrubbers.[2] **(R 336.1331, R 336.1702, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip the baghouses and scrubbers with differential pressure gauges.[2] **(R 336.1910)**

2. The permittee shall equip the scrubbers with liquid flow rate monitors. Associated with these monitors shall be an alarm set to sound if the water flow rate through the scrubbers is below 150 gallons per minute.[2] **(R 336.1331(1)(c), R 336.1702)**

V. TESTING/SAMPLING

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

1. Verification and quantification of Carbon Monoxide, Lead, Particulate, and VOC emissions from FGSPOLINE, by testing at owner's expense, in accordance with Department requirements, shall be required every five years.[2] **(R 336.2001, R 336.2003, R 336.2004)**

2. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emissions includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.[2] **(R 336.2001(5))**

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

4. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A, Method 29
CO	40 CFR Part 60, Appendix A, Method 10
VOC	40 CFR Part 60, Appendix A, Method 25A
Lead	40 CFR Part 60, Appendix A, Method 29

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

5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days before performance tests are conducted of the time and place of the performance test. **(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 calculate and maintain records of the amount of metal charged tons per year based on a 12-month rolling time period.[2] **(R 336.1205(1)(a))**

2. The permittee shall calculate and maintain records of CO, PM, Lead, and VOC emission rates in tons per year based on a 12-month rolling time period as determined at the end of each calendar month and in pounds per ton of metal charged, and tons from FGSPOLINE using emission factors derived from the most recent stack testing and approved by the AQD District Supervisor.[2] **(R 336.1205(1)(a))**

3. The permittee shall monitor and record the liquid flow rate through the scrubbers in FGSPOLINE on a continuous basis in a manner and with instrumentation acceptable to the AQD.[2] **(R 336.1331, R 336.1702, R 336.1910, 40 CFR 64.6(c)(1)(iii))**

4. The permittee shall continuously monitor each baghouse differential pressure and record the differential pressure readings once per day during production operations.[2] **(R 336.1331, R 336.1702, R 336.1910, 40 CFR 64.6(c)(1)(iii))**

5. The permittee shall use the pressure drop on scrubbers and baghouses and minimum flow rate on scrubbers to assure compliance with the particulate matter limits. An excursion for particulate matter shall be more than one daily reading out of range per scrubber or baghouse per month. The differential pressure and flow rate monitors shall be calibrated in accordance with the monitoring equipment manufacturer's requirements or recommendations for calibration. **(40 CFR 64.6(c)(2))**

6. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range or emission limit. **(40 CFR 64.7(d))**

7. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emission unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for 40 CFR Part 64 compliance, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**

8. The permittee shall properly maintain the flow rate and pressure drop monitors including keeping necessary parts for routine repairs of the monitoring equipment. **(40 CFR 64.7(b))**

9. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**

5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV007	72[2]	35[2]	**40 CFR 52.21(c) & (d)**
2. SV002	32[2]	45[2]	**40 CFR 52.21(c) & (d)**
3. SV003	52[2]	85[2]	**R 336.1225** **40 CFR 52.21(c) & (d)**
4. SV010	52[2]	85[2]	**R 336.1225** **40 CFR 52.21(c) & (d)**
5. SV008	70[2]	50[2]	**40 CFR 52.21(c) & (d)**
6. SV005A	24[2]	44[2]	**40 CFR 52.21(c) & (d)**
7. SV005B	24[2]	44[2]	**40 CFR 52.21(c) & (d)**
8. SV005C	24[2]	44[2]	**40 CFR 52.21(c) & (d)**

IX. OTHER REQUIREMENT(S)

1. The permittee shall develop and maintain a MAP for FGSPOLINE. This plan shall be reviewed at least annually and updated as needed. Any changes to the plan shall be submitted to the AQD District Supervisor for review and approval.[2] **(R 336.1911)**

2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

3. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**

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

FGCOLDCLEANERS
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof. **(R 336.1213(2))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. **(R 336.1611(2)(b), R 336.1707(3)(b))**

2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. **(R 336.1213(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
   a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
   b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**

2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**

3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**

4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**

5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 ºF, then the cold cleaner must comply with at least one of the following provisions:
   a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**
   b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**

c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. **(R 336.1213(3))**

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**
   a. A serial number, model number, or other unique identifier for each cold cleaner.
   b. The date the unit was installed, manufactured or that it commenced operation.
   c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
   d. The applicable Rule 201 exemption.
   e. The Reid vapor pressure of each solvent used.
   f. If applicable, the option chosen to comply with Rule 707(2).

3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. **(R 336.1611(3), R 336.1707(4))**

4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. **(R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))**

VII. REPORTING

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

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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_2e	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
		HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment, Great Lakes, and Energy	Hg	Mercury
		hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO_x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
		O&M	Operations and Maintenance
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10 microns in diameter
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pounds per hour
		ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	%	Percent
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
		SSM	Start-up, Shut-Down, and Maintenance
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
USEPA/EPA	United States Environmental Protection Agency	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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. Recordkeeping

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

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B2178-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-B2178-2014a is being reissued as Source-Wide PTI No. MI-PTI-B2178-2021

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
17-16A	201600094	Incorporate PTI 17-16A, which is to add one core machine and a new acid scrubber to control amine catalyst emissions. The emission units affected by the new core machine and new acid scrubber are EUALINEMOLD and EUCOREMOLDMAKING. The ROP formerly contained limits for Dimethylisopropylamine (DMIPA) which was used as a gas catalyst for the mold and core making process. The DMIPA emission units and conditions in EUALINEMOLD and EUCOREMOLDMAKING were replaced with amine catalyst emission units and associated conditions. The stack parameters changed with the new scrubber. Additionally, a condition was added stating that trimethylamine shall not be used in EUALINEMOLD and EUCOREMOLDMAKING, and visible emission conditions were removed from EUMELTING.	EUALINEMOLD EUCOREMOLDMAKING EUMELTING

Appendix 7. Emission Calculations

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

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

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