

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

EFFECTIVE DATE: July 10, 2017
REVISION DATES: August 14, 2018, April 9, 2020

ISSUED TO

Tilden Mining Company L.C.

State Registration Number (SRN): B4885

LOCATED AT

1 Tilden Mine Road, Ishpeming, Marquette County, Michigan 49849

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B4885-2017b

Expiration Date: July 10, 2022

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

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Michigan Air Pollution Control Rule 210(1), this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B4885-2017b

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(5) of Act 451. Pursuant to Michigan Air Pollution Control Rule 214a, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

Ed Lancaster, Marquette District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	3
A. GENERAL CONDITIONS.....	4
Permit Enforceability	4
General Provisions.....	4
Equipment & Design	5
Emission Limits.....	5
Testing/Sampling	5
Monitoring/Recordkeeping	6
Certification & Reporting	6
Permit Shield	7
Revisions	8
Reopenings.....	8
Renewals.....	9
Stratospheric Ozone Protection	9
Risk Management Plan.....	9
Emission Trading	9
Permit To Install (PTI)	10
B. SOURCE-WIDE CONDITIONS	11
C. EMISSION UNIT CONDITIONS	12
EMISSION UNIT SUMMARY TABLE.....	12
EUOREDRIYER1.....	16
EUOREDRIYER2.....	20
EUKILN1.....	24
EUKILN2.....	28
EUBOILER1.....	31
EUBOILER3.....	34
EU-BOILER4	37
D. FLEXIBLE GROUP CONDITIONS.....	42
FLEXIBLE GROUP SUMMARY TABLE.....	42
FGDUSTCOLLECTORS.....	44
FGBOILERS	47
FGTACONITEMACT.....	50
FGBOILERS6-7	58
FGNESHAP5D	61
E. NON-APPLICABLE REQUIREMENTS	66
APPENDICES	67
Appendix 1. Abbreviations and Acronyms.....	67
Appendix 2. Schedule of Compliance.....	68
Appendix 3. Monitoring Requirements	68
Appendix 4. Recordkeeping	68
Appendix 5. Testing Procedures	69
Appendix 6. Permits to Install.....	69
Appendix 7. Emission Calculations	70
Appendix 8. Reporting	71

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 are state-only enforceable will be noted as such.

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

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

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 40 CFR15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

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

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit To Install (PTI)

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-CONV14-15-16	Transfer points from Conveyor 14 to 15 to 16, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV15.8-15.9	Transfer point from Conveyor 15.8 to 15.9, pellet plant, with wet scrubber. (PTI No. 731-80)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV15.9-16.1	Transfer point from Conveyor 15.9 to 16.1, pellet plant, with wet scrubber. (PTI No. 347-76)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV16.1-17.1	Transfer point from Conveyor 16.1 to 17.1, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV17.1-17.2	Transfer point from Conveyor 17.1 to 17.2, pellet plant, with wet scrubber. (PTI No. 485-80)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV19 & 19A-17	Transfer points from Conveyors 19 & 19A to 17 and screen, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV13-17.1	Transfer point from Conveyor 13 to 17.1, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONV15-15.1	Transfer point from Conveyor 15 to 15.1, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR1	Ore handling, transfer point from Conveyor 1 to 2, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR12A-13	Transfer point from Conveyor 12A to 13, concentrator building, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR12B-13	Transfer point from Conveyor 12B to 13, concentrator building, with wet scrubber. (PTI No. 485-80)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR4A-4A1	Transfer point from Conveyor 4A to 4A1, secondary crusher, with wet scrubber. (PTI No. 279-86)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR4B-4C	Transfer points from Conveyors 4B & 4B1 to 4C, at secondary crusher, with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-CONVEYOR4C-4D	Transfer points from Conveyors 4C to 4D, secondary crusher, with wet scrubber. (PTI No. 278-86)	1975	FGDUSTCOLLECTORS FGTACONITEMACT

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-FEEDMIXER1	Bentonite feeders and blender mixers for Tilden 1 (lines 1 to 7), pellet plant, with wet scrubber. (PTI No. 354-75)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-FEEDMIXER2	Bentonite feeders and blender mixers for Tilden 2, (lines 8 to 14), pellet plant, with wet scrubber. (PTI No. 354-75)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-PRIMARYCRUSHER	Primary Ore Crusher, with wet scrubber. (PTI No. 275-72)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-SCREENSRECLAIM	Transfer points from Conveyor 19 to 19A to 19B & screen, concentrator building with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-COOLER1	Tilden 1 Cooler Discharge Hopper and Finished Product Conveyors with wet scrubber. (PTI No. 354-75)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-COOLER2	Tilden 2 Cooler Discharge Hopper and Finished Product Conveyor with wet scrubber. (PTI No. 354-75)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-TRANSFERTOWER1	Tilden 1 Pellet Loadout with wet scrubber. (PTI No. 616-82)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-TRANSFERTOWER2	Tilden 2 Pellet Loadout with wet scrubber (PTI No. 616-82)	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-UNIT1LHF	Tilden 1 Low Head Feeder with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-UNIT2LHF	Tilden 2 Low Head Feeder with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EU-PROD CONV2	Transfer points for finished product conveyors 31.4, 31.5, 31.6, and 31.7 with wet scrubber	1975	FGDUSTCOLLECTORS FGTACONITEMACT
EUOREDRIYER1	Ore Concentrate Dryer 1 is rated at 400 tons per hour throughput and 70 million BTU per hour heat input. This dryer is fired with natural gas and used oil. The used oil is supplied only from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. Concentrate Dryer 1 is controlled with a cyclone precleaner and a wet scrubber. (PTI Nos. 511-87C and 148-12A)	1974 1996	FGTACONITEMACT

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUOREDRYER2	Ore Concentrate Dryer 2 is rated at 800 tons per hour throughput and 125 million BTU per hour heat input. This dryer is fired with natural gas and used oil. The used oil is supplied only from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. Concentrate Dryer 2 is controlled with two cyclone precleaners and two wet scrubbers. (PTI No. 511-87C)	1978 1996	FGTACONITEMACT
EUKILN1	Unit 1 Grate Kiln Indurating Furnace dries and preheats pellets on a traveling grate and then heats the pellets in a rotary kiln for final induration. Unit 1 main burners are rated at 590 million BTU per hour heat input. The Tilden facility produces hematite pellets and magnetite pellets. Unit 1 is fired with coal, natural gas, or used oil supplied from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. The unit is controlled with dry electrostatic precipitators. (PTI Nos. 511-87C, 70-02 and 148-12A)	1974 1996 2002	FGTACONITEMACT
EUKILN2	Unit 2 Grate Kiln Indurating Furnace dries and preheats pellets on a traveling grate and then heats the pellets in a rotary kiln for final induration. Unit 2 main burners are rated at 590 million BTU per hour heat input. The Tilden facility produces hematite pellets and magnetite pellets. Unit 2 is fired with coal, natural gas, or used oil supplied from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. The unit is controlled with dry electrostatic precipitators. (PTI Nos. 511-87C, and 70-02)	1978 1996 2002	FGTACONITEMACT
EUBOILER1	Boiler 1 is rated at 225 million BTU per hour heat input capacity and fired with natural gas and used oil supplied from the 1.5 million gallon storage tank, which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. (PTI No. 202-16)	1974 1996	NA
EUBOILER3	Boiler 3 is rated at 240 million BTU per hour heat input capacity and is fired with natural gas and used oil supplied from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. (PTI No. 511-87C)	1978 1996	NA

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-BOILER4	Boiler 4 is rated at 300 million BTU per hour (mmBTU/hr) heat input capacity and is fired with natural gas only. The boiler will be equipped with a low NOx burner.	May 2018	FGNESHAP5D
EUBOILER6 EUBOILER7	Kewaunee Boilers 6 and 7 are located at the Pit Service Building. Each boiler is rated at 19.46 million BTU per hour. The boilers are capable of burning natural gas, No. 2 fuel oil and/or used oil fuel. These emission units were originally permitted to Empire Mine Partnership. (Permits to Install Nos. 436-97, 219-04)	1980 1997	FGBOILERS6-7

**EUOREDRIYER1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Ore Concentrate Dryer #1 (EUOREDRIYER1) is rated at 400 tons per hour throughput and 70 million BTU per hour heat input. EUOREDRIYER1 is fired with natural gas and used oil. The used oil is supplied from the 1.5 million gallon storage tank, which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. EUOREDRIYER1 is controlled with a cyclone pre-cleaner and a wet scrubber. **(PTI Nos. 511-87C and 148-12A)**

Flexible Group ID: FGTACONITE MACT

POLLUTION CONTROL EQUIPMENT

Cyclone pre-cleaner and a wet scrubber

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.0009 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER1	SC VI.3 Appendix 7	R 336.1224
2. Cadmium	0.0009 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER1	SC VI.3 Appendix 7	R 336.1224
3. Chromium (total)	0.0009 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER1	Appendix 7	R 336.1224
4. Lead	0.00265 tpy ²	12-month rolling time period/when firing used oil	EUOREDRIYER1	SC VI.3 Appendix 7	40 CFR 52.21(d)
5. PM	0.10 lb./1000 lbs. of exhaust gases, calculated on a dry gas basis ²	Test Protocol*	EUOREDRIYER1	SC V.1.	R 336.1331

* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

- The fuel sulfur content limit of no greater than 1.50% sulfur content by weight shall apply to fuel combusted in EUOREDRIYER1. **(40 CFR 52.1183(k)(2))**
- The halogen content of the used oil burned in EUOREDRIYER1 shall not exceed 1000 parts per million, by weight.¹ **(R 336.1224)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The oil burned in EUOREDRIYER1 shall be supplied only from the 1.5 million gallon used oil tank.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each wet scrubber with at least one of the following:² **(R 336.1910)**
 - a. Operable water pressure gauge
 - b. Operable water flow meter
 - c. Viewport with pivoted cover or quick-release hatch
 - d. Scrubber drain with readily visible sump to verify scrubber water flow

V. TESTING/SAMPLING

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

1. The permittee shall demonstrate compliance with the particulate matter emission limit in Special Condition (SC) I.5 for EUOREDRIYER1 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(c). Testing will be conducted at least once during the five-year permit term and once every five years thereafter.² **(R 336.1213(3), R 336.2001(3) and (4), 40 CFR 63.9621(c), 63.9630(d) and 63.9634(c)(2))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of the gallons of used oil burned in EUOREDRIYER1 for each calendar month. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
2. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in EUOREDRIYER1, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.² **(40 CFR 52.21(d))**
3. The permittee shall calculate the rolling 12-calendar month period emissions for arsenic, cadmium, chromium (total), and lead from EUOREDRIYER1 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports.² **(40 CFR 52.21(d))**
4. The permittee shall continuously measure pressure drop and scrubber liquid flow rate, using a Continuous Parameter Monitoring System (CPMS), and record every 15 minutes for a 24-hour average as an indicator of proper operation of the scrubber. **(40 CFR 64.6(c)(1)(i and ii))**
5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUOREDRIYER1 and its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(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 purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 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))**

See Appendices 4 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
5. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**
6. The permittee shall submit 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.² **(R 336.12001(3))**
7. 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))**
8. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8

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. SVP0082951	75.6 ¹	119.1 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 52 APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS, Subpart X—Michigan, Section 52.1183 Visibility Protection. **(40 CFR 52.1183(k))**

Footnotes:

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

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

**EUOREDRIYER2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Ore Concentrate Dryer #2 (EUOREDRIYER2) is rated at 800 tons per hour throughput and 125 million BTU per hour heat input. The dryer is fired with natural gas and used oil supplied from the 1.5 million gallon storage tank. EUOREDRIYER2 is controlled with two cyclone pre-cleaners and two wet scrubbers. **(PTI No. 511-87C)**

Flexible Group ID: FGTA CONITE MACT

POLLUTION CONTROL EQUIPMENT

Two cyclone pre-cleaners and two wet scrubbers.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.0016 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER2	SC VI.3 Appendix 7	R 336.1224
2. Cadmium	0.0016 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER2	SC VI.3 Appendix 7	R 336.1224
3. Chromium (total)	0.0016 tpy ¹	12-month rolling time period/when firing used oil	EUOREDRIYER2	SC VI.3 Appendix 7	R 336.1224
4. Lead	0.0048 tpy ²	12-month rolling time period/when firing used oil	EUOREDRIYER2	SC VI.3 Appendix 7	40 CFR 52.21(d)
5. PM	0.10 lb. per 1000 lbs. of exhaust gases, calculated on a dry gas basis. ²	Test Protocol	EUOREDRIYER2	SC V.1.	R 336.1331

* Test protocol shall specify averaging time.

II. MATERIAL LIMIT(S)

1. The used oil burned in EUOREDRIYER2 shall not exceed a sulfur content of 1.5% by weight, calculated on the basis of 18,000 BTU per pound. ² **(R 336.1402)**
2. The halogen content of the used oil burned in EUOREDRIYER2 shall not exceed 1000 parts per million, by weight.¹ **(R 336.1224)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The oil burned in EUOREDRIYER2 shall be supplied only from the 1.5 million gallon used oil tank. ² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each wet scrubber with at least one of the following:² **(R 336.1910)**
 - a. Operable water pressure gauge
 - b. Operable water flow meter
 - c. Viewport with pivoted cover or quick-release hatch
 - d. Scrubber drain with readily visible sump to verify scrubber water flow

V. TESTING/SAMPLING

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

1. The permittee shall demonstrate compliance with the particulate matter emission limit in SC I.5 for EUOREDRIYER2 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(c). Testing will be conducted at least once during the five-year permit term and once every five years thereafter.² **(R 336.1213(3), R 336.2001(3) and (4), 40 CFR 63.9621(c), 63.9630(d) and 63.9634(c)(2))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of the gallons of used oil burned in EUOREDRIYER2 for each calendar month. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
2. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in EUOREDRIYER2, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.¹ **(R 336.1224)**
3. The permittee shall calculate the rolling 12-calendar month period emissions for arsenic, cadmium, chromium (total), and lead from EUOREDRIYER2 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports.¹ **(R 336.1224)**
4. The permittee shall continuously measure pressure drop and scrubber liquid flow rate, using a Continuous Parameter Monitoring System (CPMS), and record every 15 minutes for a 24-hour average as an indicator of proper operation of the scrubber. **(40 CFR 64.6(c)(1)(i and ii))**
5. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUOREDRIYER2 and its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(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 purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 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))**

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

See Appendices 4 and 7

VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 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))**
- 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))**
- 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.² **(R 336.12001(3))**
- 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))**
- The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8

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. SVP0082851	75.6 ¹	119.1 ¹	R 336.1224
2. SVP0082861	75.6 ¹	119.1 ¹	R 336.1224

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).

**EUKILN1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Unit 1 Grate Kiln Indurating Furnace (EUKILN1) dries and preheats pellets on a traveling grate and then heats the pellets in a rotary kiln for final induration. EUKILN1 main burners are rated at 590 million BTU per hour heat input. The Tilden facility produces hematite pellets and magnetite pellets. EUKILN1 is fired with coal, natural gas, or used oil supplied from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. The unit is controlled with dry electrostatic precipitators. **(PTI Nos. 511-87C, 70-02 and 148-12A)**

Flexible Group ID: FGTA CONITEMACT

POLLUTION CONTROL EQUIPMENT

Dry Electrostatic precipitators

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.0058 tpy ¹	12-month rolling time period/when firing used oil	EUKILN1	SC VI.4	R 336.1224
2. Cadmium	0.0058 tpy ¹	12-month rolling time period/when firing used oil	EUKILN1	SC VI.4	R 336.1224
3. Chromium (total)	0.0058 tpy ¹	12-month rolling time period/when firing used oil	EUKILN1	SC VI.4	R 336.1224
4. Lead	0.017 tpy ²	12-month rolling time period/when firing used oil	EUKILN1	SC VI.4	40 CFR 52.21(d)
5. PM	0.065 lb./1000 lbs. of exhaust gases ²	Test Protocol*	EUKILN1	SC V.1	R 336.1331
6. PM	200 pph ²	Test Protocol*	EUKILN1	SC V.1	R 336.1331
7. SO ₂	28,800 lbs/day ²	Calendar Day	EUKILN1	SC VI.1, VI.2 VI.5	R 336.1402 R 336.1971
8. SO ₂	500 pph ³	30-day rolling average	EUKILN1	SC VI.9	40 CFR 52.1183(k)(3)
9. NO _x	2.8 lbs/MMBtu ³	720-hour rolling average/when burning natural gas	EUKILN1	SC VI.6	40 CFR 52.1183(k)(1)(i)
10. NO _x	1.5 lbs/MMBtu ³	720-hour rolling average/when burning coal or a mixture of coal and natural gas	EUKILN1	SC VI.6	40 CFR 52.1183(k)(1)(i)

* Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

1. The halogen content of the used oil burned in EUKILN1 shall not exceed 1000 parts per million, by weight.¹ **(R 336.1224)**
2. The sulfur content of the coal burned in EUKILN1 shall not exceed 0.60% by weight, based on a monthly block average. **(40 CFR 52.1183(k)(3))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUKILN1 unless the electrostatic precipitators are operating properly.² **(R 336.1910)**
2. The oil burned in EUKILN1 shall be supplied only from the 1.5 million gallon used oil tank.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a continuous emissions monitoring system (CEMS) to monitor and record the NO_x emissions and flow from EUKILN1 on a continuous basis.² **(R 336.1971 and 40 CFR 52.1183(k)(1)(ii))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a CEMS to monitor and record the SO₂ emissions and flow from EUKILN1 on a continuous basis. **(40 CFR 52.1183(k)(3))**

V. TESTING/SAMPLING

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

1. The permittee shall demonstrate compliance with the particulate matter emission limit specified in SCs I.5 and 6 for EUKILN1 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(a). Testing will be conducted at least twice during the five-year permit term and twice every five year term thereafter.² **(R 336.1213(3), R 336.2001(3) and (4), 40 CFR 63.9621(c), 63.9630(b) and 63.9634(c)(2))**

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 obtain and keep records of the sulfur content of the coal burned in EUKILN1, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
2. The permittee shall keep a record of the gallons of used oil burned in EUKILN1 for each calendar month. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
3. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in EUKILN1, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.¹ **(R 336.1224)**
4. The permittee shall calculate the 12-month rolling time period emissions for arsenic, cadmium, chromium (total), and lead from EUKILN1 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports.¹ **(R 336.1224)**
5. The permittee shall calculate the daily SO₂ emissions from EUKILN1, to determine compliance with SC 1.7, and shall submit these calculations with the semiannual reports.² **(R 336.1971, 40 CFR 52.1183(k)(2))**
6. The permittee shall continuously monitor and record, in a satisfactory manner, the NO_x emissions and flow from EUKILN1. The permittee shall operate the CEMS to meet the timelines, requirements and reporting detailed in Appendix 3 and shall use the CEMS data for determining compliance with SC 9 and 10.² **(40 CFR 52.1183(k)(1)(ii))**

7. The permittee shall utilize COM-recorded opacity as an indicator of the proper operation of the electrostatic precipitator. The indicator range of opacity defining proper function of the ESP is (opacity). Six-minute average values shall be based on 36 or more equally spaced instantaneous opacity measurements per six-minute period. The COM shall be calibrated in accordance with 40 CFR Part 60, Subpart A. **(40 CFR 64.6(c)(1)(i and ii))**
8. The permittee shall continuously monitor and record, in a satisfactory manner, the SO₂ emissions from EUKILN1. The permittee shall operate the CEMS data for determining compliance with SC I.8. **(40 CFR 52.1183(k)(3))**

See Appendices 3, 4 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Within 60 days after the end of each Ozone Control Period (May 1 through September 30 of each year), the permittee shall submit a summary report for EUKILN1 in an acceptable format including all of the information specified in Rule 801(12).¹ **(R 336.1801(12))**
5. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
6. 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))**
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.² **(R 336.12001(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.² **(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.² **(R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVP0051981 (North Stack)	160.8 ¹	160 ¹	R 336.1224
2. SVP0051711 (South Stack)	232.8 ¹	240 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. During the Ozone Control Period (May 1 through September 30 of each year), the permittee shall operate EUKILN1 in conformance with the control program for NO_x required by Rule 801(4)(g), as approved by the Air Quality Division.¹ **(R 336.1801)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 52, APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS, Subpart X—Michigan, Section 52.1183 Visibility Protection.³ **(40 CFR 52.1183(k))**

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).

³ These conditions will become enforceable according to the timeline pursuant to 40 CFR 52.1183(k)

**EUKILN2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Unit 2 Grate Kiln Indurating Furnace (EUKILN2) dries and preheats pellets on a traveling grate and then heats the pellets in a rotary kiln for final induration. EUKILN2 main burners are rated at 590 million BTU per hour heat input. The Tilden facility produces hematite pellets and magnetite pellets. EUKILN2 is fired with coal, natural gas, or used oil supplied from the 1.5 million gallon storage tank which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil. The unit is controlled with dry electrostatic precipitators. **(PTI Nos. 511-87C, and 70-02)**

Flexible Group ID: FGTA CONITEMACT

POLLUTION CONTROL EQUIPMENT

Dry Electrostatic precipitators.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.0058 tpy ¹	12-month rolling time period when firing used oil	EUKILN2	SC VI.4 Appendix 7	R 336.1224
2. Cadmium	0.0058 tpy ¹	12-month rolling time period when firing used oil	EUKILN2	SC VI.4 Appendix 7	R 336.1224
3. Chromium (total)	0.0058 tpy ¹	12-month rolling time period when firing used oil	EUKILN2	SC VI.4 Appendix 7	R 336.1224
4. Lead	0.017 tpy ²	12-month rolling time period when firing used oil	EUKILN2	SC VI.4 Appendix 7	40 CFR 52.21(d)
5. PM	0.065 lb. / 1000 lbs. of exhaust gases ²	Test Protocol	EUKILN2	SC V.1	R 336.1331
6. PM	200 pph ²	Test Protocol	EUKILN2	SC V.1	R 336.1331
7. SO ₂	28,800 lbs. per day ²	Calendar Day	EUKILN2	SC VI.1 SC VI.2 SC VI.5	R 336.1402

* Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

1. The halogen content of the used oil burned in EUKILN2 shall not exceed 1000 parts per million, by weight.¹ **(R 336.1224)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUKILN2 unless the electrostatic precipitators are operating properly.² **(R 336.1910)**
2. The oil burned in EUKILN2 shall be supplied only from the 1.5 million gallon used oil tank.² **(R 336.1201(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall demonstrate compliance with the particulate matter emission limit specified in SC I.5 and 6 for EUKILN2 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(a). Testing will be conducted at least twice during the five-year permit term and twice every five year term thereafter. ² **(R 336.1213(3), R 336.2001(3) and (4), 40 CFR 63.9621(c), 63.9630(b) and 63.9634(c)(2))**

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 obtain and keep records of the sulfur content of the coal burned in EUKILN2, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports². **(R 336.1201(3))**
2. The permittee shall keep a record of the gallons of used oil burned in EUKILN2 for each calendar month. The permittee shall submit these records with the semiannual reports. ² **(R 336.1201(3))**
3. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in EUKILN2, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports¹. **(R 336.1224)**
4. The permittee shall calculate the rolling 12-calendar month period emissions for arsenic, cadmium, chromium (total), and lead from EUKILN2 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports. ¹ **(R 336.1224)**
5. The permittee shall calculate the daily sulfur dioxide emissions from EUKILN2, and shall submit these calculations with the semiannual reports. ² **(R 336.1201(3))**
6. The permittee shall utilize COM-recorded opacity as an indicator of the proper operation of the electrostatic precipitator. The indicator range of opacity defining proper function of the ESP is (opacity). Six-minute average values shall be based on 36 or more equally spaced instantaneous opacity measurements per six-minute period. The COM shall be calibrated in accordance with 40 CFR Part 60, Subpart A. **(40 CFR 64.6(c)(1)(i and ii))**

See Appendices 4 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. Within 60 days after the end of each Ozone Control Period (May 1 through September 30 of each year), the permittee shall submit a summary report for EU KILN2 in an acceptable format including all of the information specified in Rule 801(12).¹ **(R 336.1801(12))**

5. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
6. 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))**
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.² **(R 336.12001(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.² **(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.² **(R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVP0052431 (North Stack)	160.8 ¹	240 ¹	R 336.1224
2. SVP0052131 (South Stack)	232.8 ¹	240 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. During the Ozone Control Period (May 1 through September 30 of each year), the permittee shall operate EU KILN2 in conformance with the control program for Oxides of Nitrogen required by Rule 801(4)(g), as approved by the AQD.¹ **(R 336.1801)**

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).

**EUBOILER1
 EMISSION UNIT CONDITIONS**

DESCRIPTION

EUBOILER1 is rated at 225 million BTU per hour heat input capacity and fired with natural gas and used oil supplied from the 1.5 million gallon storage tank, which may contain used oil and virgin fuel oil. All oil burned from this tank is considered used oil.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.12 tpy ¹	12-month rolling time period when firing used oil	EUBOILER1	SC VI.3	R 336.1224
2. Cadmium	0.12 tpy ¹	12-month rolling time period when firing used oil	EUBOILER1	SC VI.3	R 336.1224
3. Chromium (total)	0.12 tpy ¹	12-month rolling time period when firing used oil	EUBOILER1	SC VI.3	R 336.1224
4. Lead	0.37 tpy ²	12-month rolling time period when firing used oil	EUBOILER1	SC VI.3	40 CFR52.21(d)

II. MATERIAL LIMIT(S)

- The fuel sulfur content limit of no greater than 1.20% sulfur content by weight shall apply to fuel combusted in EUBOILER1. **(40 CFR 52.1183(k)(2))**
- The halogen content of the used oil burned in EUBOILER1 shall not exceed 1000 parts per million, by weight. **(R 336.1224)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The oil burned in EUBOILER1 shall be supplied only from the 1.5 million gallon used oil tank. **(R 336.1201(3))**
- The permittee must operate and maintain EUBOILER1 in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include but is not limited to, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
- The permittee may obtain approval from the Administrator to use an alternative to the work practice standards. **(40 CFR 63.7500(b))**
- The permittee shall complete a tune-up of EUBOILER1 every five (5) years (61 months) for boiler/process heaters utilizing an oxygen trim system and greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 63.7515(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of the gallons of used oil burned in EUBOILER1 for each calendar month. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
2. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in EUBOILER1, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
3. The permittee shall calculate the 12-month rolling time period emissions for arsenic, cadmium, chromium (total), and lead from EUBOILER1 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports.² **(R 336.1201(3))**
4. The permittee must keep a copy of each notification and report submittal to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).² **(40 CFR 63.7555(a)(1))**
5. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three (3) years.² **(40 CFR 63.7560(a), (b), and (c))**

See Appendices 4 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit boiler tune-up reports to the AQD upon request.² **(40 CFR 63.7540(a)(10))**
5. The permittee must submit boiler tune-up compliance reports. Compliance reports must be postmarked or submitted by March 15th of the year following the tune-up and must cover the period starting from January 1 and ending December 31. Compliance reports must be submitted using the Compliance and Emission Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to the state and EPA Region 5. At the discretion of the Administrator, the permittee must submit these reports in the format specified by the Administrator.² **(40 CFR 63.7550(b), 63.10(a)(5), and 63.7550(h)(3))**

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. SVBLR.STK.T1	90 ¹	130 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.² **(40 CFR Part 63, Subpart DDDDD)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 52 APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS, Subpart X—Michigan, Section 52.1183 Visibility Protection.² **(40 CFR 52.1183(k))**

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).

**EUBOILER3
 EMISSION UNIT CONDITIONS**

DESCRIPTION

EU-BOILER3 - Boiler #3 is rated at 240 million BTU per hour heat input capacity and is fired with natural gas and used oil supplied from the 1.5 million gallon storage tank. **(PTI No. 511-87C)**

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Arsenic	0.06 tpy ¹	12-month rolling time period/ when firing used oil ¹	EUBOILER3	SC VI.3 Appendix 7	R 336.1224
2. Cadmium	0.06 tpy ¹	12-month rolling time period/ when firing used oil ¹	EUBOILER3	SC VI.3 Appendix 7	R 336.1224
3. Chromium (total)	0.06 tpy ¹	12-month rolling time period/ when firing used oil ¹	EUBOILER3	SC VI.3 Appendix 7	R 336.1224
4. Lead	0.18 tpy ²	12-month rolling time period/ when firing used oil ¹	EUBOILER3	SC VI.3 Appendix 7	40 CFR 52.21(d)

II. MATERIAL LIMIT(S)

1. The used oil burned in Boiler #3 shall not exceed a sulfur content of 1.2 percent by weight. ² **(R 336.1402)**
2. The halogen content of the used oil burned in Boiler #3 shall not exceed 1000 parts per million, by weight. ¹ **(R 336.1224)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The oil burned in Boiler #3 shall be supplied only from the 1.5 million gallon used oil tank. ² **(R 336.1201(3))**
2. The permittee must operate and maintain EUBOILER3 in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include but is not limited to, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
3. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards. **(40 CFR 63.7500(b))**
4. The permittee shall complete a tune-up of EUBOILER3 every five (5) years (61 months) for boiler/process heaters utilizing an oxygen trim system and greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 63.7515(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep a record of the gallons of used oil burned in Boiler #3 for each calendar month. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
2. The permittee shall sample and perform analyses and keep monthly records of the density, total halogen content, sulfur content, arsenic content, cadmium content, chromium (total) content, and lead content of the used oil burned in Boiler #3, as detailed in Appendix 4. The permittee shall submit these records with the semiannual reports.² **(R 336.1201(3))**
3. The permittee shall calculate the rolling 12-calendar month period emissions for arsenic, cadmium, chromium (total), and lead from Boiler #3 using the formula and procedure specified in Appendix 7. The permittee shall submit these calculations with the semiannual reports.² **(R 336.1201(3))**
4. The permittee must keep a copy of each notification and report submittal to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
5. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three (3) years. **(40 CFR 63.7560(a), (b), and (c))**

See Appendices 4 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit boiler tune-up reports to the AQD upon request. **(40 CFR 63.7540(a)(10))**
5. The permittee must submit boiler tune-up compliance reports. Compliance reports must be postmarked or submitted by March 15th of the year following the tune-up and must cover the period starting from January 1 and ending December 31. Compliance reports must be submitted using the Compliance and Emission Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to the state and EPA Region 5. At the discretion of the

Administrator, the permittee must submit these reports in the format specified by the Administrator. **(40 CFR 63.7550(b), 63.10(a)(5), and 63.7550(h)(3))**

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. SVBLR.STK.T2	168 ¹	241 ¹	R 336.1224

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subpart DDDDD)**

Footnotes:

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

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

**EU-BOILER4
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Boiler 4 is rated at 300 million BTU per hour (mmBTU/hr) heat input capacity and is fired with natural gas only. The boiler will be equipped with a low NOx burner.

Flexible Group ID: FGNESHAP5D

POLLUTION CONTROL EQUIPMENT

Low NOx burner to control NOx emissions.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.0350 lb/MMBTU ²	Continuous	EU-BOILER4	SC V.1 SC VI.2	R 336.2803 R 336.2804
2. NOx	0.20 lb/MMBTU ^{a,2} or 86 ng/J ^{a,2}	24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests.	EU-BOILER4	SC V.1 SC VI.3	40 CFR 60.44b(a),(h),(j)
3. CO	0.0840 lb/MMBTU ²	Hourly	EU-BOILER4	SC V.2 SC VI.5	R 336.2804
4. SO ₂	0.20 lb/MMBTU ²	Hourly	EU-BOILER4	SC VI.7	40 CFR 60.42b(k)(1)

^aHigh heat release rate.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in EU-BOILER4.² **(R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804)**
2. The pipeline quality natural gas shall not have a total sulfur content in excess of 0.2 grains of sulfur per 100 standard cubic feet.² **(R 336.1205(1)(a) & (3))**
3. The natural gas fuel usage for EU-BOILER4 shall not exceed 1,275 million cubic feet per 12-month rolling time period. The limit is based on a heat input value of 1,000 BTU per cubic foot of natural gas.² **(R 336.1205(1)(a) & (3))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain EU-BOILER4, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions and comply with Table 3 of 40 CFR Part 63, Subpart DDDDD.² **(R 336.1910, R 336.1911, R 336.2803, R 336.2804)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each unit in EU-BOILER4 shall not exceed a maximum of 300 MMBTU per hour on a fuel heat input basis.² **(R 336.1205(1)(a) & (3), R 336.1225, R 336.2803, R 336.2804)**

2. The permittee shall not operate any unit in EU-BOILER4 unless the low NO_x burners are installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining the air pollution control equipment in accordance with SC III.1.² **(R 336.1205(1)(a) & (3), R 336.1910, R 336.2803, R 336.2804)**
3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor and record the natural gas flow rate for EU-BOILER4 on a continuous basis.² **(R 336.1205(1)(a) & (3))**
4. The continuous NO_x emissions, and CO₂ or O₂ concentration monitoring systems are to be operated and data recorded during all periods of operation including periods of start-up, shutdown, malfunction or emergency conditions, except for continuous monitor system breakdowns, repairs, calibration checks, and zero span adjustments.² **(40 CFR 60.48b(b))**
5. The procedures under 40 CFR 60.13 and Performance Specification 2 of Appendix B to 40 CFR, Part 60 shall be followed for installation, initial evaluation, and operation of the NO_x CEMS or PEMS.² **(R 336.2150(1)(b), 40 CFR 60.48b(b))**
6. The procedures under 40 CFR 60.13 and Performance Specification 3 of Appendix B to 40 CFR, Part 60 shall be followed for installation, initial evaluation, and operation of the O₂ or CO₂ CEMS or PEMS.² **(R 336.2150(1)(d) and (e), 40 CFR 60.48b(b))**
7. The procedures under 40 CFR 60.13 and Performance Specification 6 of Appendix B to 40 CFR, Part 60 shall be followed for installation, initial evaluation, and operation of the flow rate CEMS or PEMS. As an alternative to Performance Specification 6, the permittee may use the procedures set forth in 40 CFR, Part 75, Appendix B.² **(R 336.2150)**
8. The span value for the NO_x CEMS or PEMS, for natural gas fuel, shall be 500 ppm.² **(40 CFR 60.48b(e)(2))**

V. TESTING/SAMPLING

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

1. The permittee shall perform the Quality Assurance Procedures of the CEMS or PEMS set forth in Appendix F, Procedure 1 of 40 CFR, Part 60. As an alternative, the permittee may perform the Quality Assurance Procedures for CEMS set forth in Appendix B of 40 CFR, Part 75.² **(40 CFR Part 60, Appendix F)**
2. Within 180 days after commencement of initial start up the permittee shall verify CO emission rates from EU-BOILER4 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall verify the CO emission rates from EU-BOILER4, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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 complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (3), R 336.2803, R 336.2804)**

2. The permittee shall monitor and record the NO_x and O₂ (or CO₂) emissions from EU-BOILER4 on a continuous basis in a manner and with instrumentation acceptable to the AQD. Emission data shall be obtained for at least 18 hours in at least 22 out of 30 successive boiler operating days.² **(40 CFR 60.48b(b),(f))**
3. The permittee shall use CEMS or PEMS data to calculate and record the NO_x emission rates from EU-BOILER4 in pounds per MMBtu heat input based on a 30-day rolling average. The NO_x emissions shall be determined by calculating the arithmetic average of all hourly emission rates for NO_x for the 30 successive boiler operating days.² **(R 336.2810, 40 CFR 60.48b(d))**
4. The permittee shall use CEMS or PEMS data to calculate and record the NO_x emission rate from EU-BOILER4 in tons per year based on a 12-month rolling time period. The NO_x emissions shall be determined by calculating the arithmetic average of all hourly emission rates for NO_x for the averaging periods specified in Special Conditions I.1, I.2, and I.3.² **(R 336.1205(3))**
5. The Permittee shall calculate and record the CO emissions, in a satisfactory manner from EU-BOILER4, in tons per year based on a 12-month rolling time period. The CO emissions shall be determined by using the most recent stack test data.² **(R 336.1205(3))**
6. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for EU-BOILER4 on a monthly and 12 month rolling time period basis. The permittee shall keep all records on file and make them available to the Air Quality Division, upon request.² **(R 336.1205(1)(a) & (3))**
7. The permittee shall keep records of fuel certification (fuel receipts such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel for EU-BOILER4 meets the definition of natural gas as defined in 40 CFR 60.41b.² **(R 336.1205(3), 40 CFR 60.45b(j), 40 CFR 60.49b(r))**
8. The permittee shall maintain records for EU-BOILER4 of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a. Compliance tests and any testing required under the special conditions of this permit;
 - b. Monitoring data;
 - c. Verification of heat input capacity required to show compliance with SC IV.1;
 - d. Fuel certification;
 - e. All calculations or documents necessary to show compliance with the limits contained in this permit.

The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, 40 CFR Part 60, Subparts A & Db)**

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. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by Permit to Install 202-16, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each unit in EU-BOILER4.² **(R 336.1216(1)(a)(v), R 336.1201(7)(a))**

5. The permittee shall submit the quality assurance procedures for the CEMS or PEMS set forth in Appendix F, Procedure 1 of 40 CFR Part 60 to the AQD District Supervisor within the quarterly EER for the quarter in which the annual audit is completed.² **(R 336.2170, 40 CFR 60.7)**
6. Quarterly Excess Emission Report (EERs) of NO_x, shall be submitted, in a format acceptable to the AQD District Supervisor, within 30 days following the end of the quarter that the data was collected. The EER shall include the following:² **(R 336.2170, 40 CFR 60.49b(g), 40 CFR 60.48b(p), 40 CFR 60.7)**
 - a. Calendar date;
 - b. The number of hours of operation;
 - c. A record of the hourly steam load;
 - d. Average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBTU heat input) measured or predicted;
 - e. The 30-day average NO_x emission rates calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
 - f. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards with the reasons for such excess emissions as well as a description of corrective actions taken;
 - g. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
 - h. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
 - i. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
 - j. Identification of the times when the pollutant concentration exceeded full span of the CEMS or PEMS;
 - k. Description of any modifications to CEMS or PEMS which could affect the ability of the CEMS or PEMS to comply with Performance Specifications 2 or 3; and
 - l. Results of daily CEMS or PEMS drift tests and quarterly accuracy assessments as required under Appendix F, Procedure 1 of 40 CFR Part 60.
7. 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)

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. SVBLR.STK.T1 (EUBOILER4 will share stack with EUBOILER1)	90 ²	130 ²	R 336.1224 R 336.1225 R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Db, as they apply to EU-BOILER4.² **(40 CFR Part 60, Subparts A & Db)**
2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to EU-BOILER4.² **(40 CFR Part 63, Subparts A & DDDDD)**

3. The permittee shall decommission EUBOILER2 before operating EUBOILER4.² **(R 336.2803, R 336.2804)**
4. The permittee shall comply with the applicable requirements of 40 CFR Part 52 APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS, Subpart X—Michigan, Section 52.1183 Visibility Protection.² **(40 CFR 52.1183(k))**

Footnotes:

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

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

D. FLEXIBLE GROUP CONDITIONS

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

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

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGDUSTCOLLECTORS	Various ore, concentrate, and finished pellet handling processes throughout the facility, including primary and secondary ore crushing, conveyor transfer points, bentonite feeders and mixer blenders, pellet cooler discharge hoppers, low head feeders, transfer towers, etc. The various emission units are controlled with wet scrubbers.	EU-CONV14-15-16 EU-CONV15.8-15.9 EU-CONV15.9-16.1 EU-CONV16.1-17.1 EU-CONV17.1-17.2 EU-CONV19 & 19A-17 EU-CONV13-17.1 EU-CONV15-15.1 EU-CONVEYOR1 EU-CONVEYOR12A-13 EU-CONVEYOR12B-13 EU-CONVEYOR4A-4A1 EU-CONVEYOR4B-4C EU-CONVEYOR4C-4D EU-FEEDMIXER1 EU-FEEDMIXER2 EU-PRIMARYCRUSHER EU-SCREENSRECLAIM EU-COOLER1 EU-COOLER2 EU-TRANSFERTOWER1 EU-TRANSFERTOWER2 EU-UNIT1LHF EU-UNIT2LHF EU-PROD CONV2
FGBOILERS	One or more propane or natural gas-fired boilers, each with a maximum rated heat input of 100 million Btu per hour, and each controlled by a low-NOx burner. (PTI No. 147-13)	NA
FGTACONITEMACT	The affected source is an existing taconite iron ore processing plant, that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. An existing affected source is a source that commenced construction or reconstruction before December 18, 2002. The regulations cover emissions from ore crushing and handling emission units, ore dryer stacks, indurating furnace stacks, finished pellet handling emission units, and fugitive dust emissions.	EUOREDRIYER1 EUOREDRIYER2 EUKILN1 EUKILN2 FGDUSTCOLLECTORS

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERS6-7	Kewaunee Boilers 6 and 7 are located at the Pit Service Building. Each boiler is rated at 19.46 million BTU per hour. The boilers are capable of burning natural gas, No. 2 fuel oil and/or used oil fuel. These emission units were originally permitted to Empire Mine Partnership. (Permits to Install Nos. 436-97, 219-04)	EU-BOILER6 EU-BOILER7
FGNESHAP5D	Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These new boilers or process heaters must comply with this subpart upon startup.	EU-BOILER4

**FGDUSTCOLLECTORS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Various ore, concentrate, and finished pellet handling processes throughout the facility, including primary and secondary ore crushing, conveyor transfer points, bentonite feeders and mixer blenders, pellet cooler discharge hoppers, low head feeders, transfer towers, etc. The various emission units are controlled with wet scrubbers.

Emission Units: EU-CONV14-15-16, EU-CONV15.8-15.9, EU-CONV15.9-16.1, EU-CONV16.1-17.1, EU-CONV17.1-17.2, EU-CONV19&19A-17, EU-CONV13-17.1, EU-CONV15-15.1, EU-CONVEYOR1, EU-CONVEYOR12A-13, EU-CONVEYOR12B-13, EU-CONVEYOR4A-4A1, EU-CONVEYOR4B-4C, EU-CONVEYOR4C-4D, EU-FEEDMIXER1, EU-FEEDMIXER2, EU-PRIMARYCRUSHER, EU-SCREENSRECLAIM, EU-COOLER1, EU-COOLER2, EU-TRANSFERTOWER1, EU-TRANSFERTOWER2, EU-UNIT1LHF, EU-UNIT2LHF, EU-PROD CONV2

Related Flexible Group ID: FGTACONITEMACT

POLLUTION CONTROL EQUIPMENT

Wet Scrubbers

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.10 lb./1000 lbs. of exhaust gases, calculated on a dry gas basis ²	Test Protocol	FGDUSTCOLLECTORS	See FG TACONITEMACT SC V.1	R 336.1331

* Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip each wet scrubber with at least one of the following:² **(R 336.1910)**
 - a. Operable water pressure gauge
 - b. Operable water flow meter
 - c. Viewport with pivoted cover or quick-release hatch
 - d. Scrubber drain with readily visible sump to verify scrubber water flow

V. TESTING/SAMPLING

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

See FGTACONITEMACT.

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 continuously measure pressure drop and scrubber liquid flow rate, using a Continuous Parameter Monitoring System (CPMS), and record every 15 minutes for a 24-hour average as an indicator of proper operation of the scrubber. **(40 CFR 64.6(c)(1)(i and ii))**
2. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of DUSTCOLLECTORS and its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). **(40 CFR 64.7(d))**
3. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 64.7(c))**
4. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
5. 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))**

6. 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.² **(R 336.12001(3))**
7. 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))**
8. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8

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
2 - 145 sly impinjet scrubbers (731-80)	26 ¹	85 ¹	R 336.1901
140 sly impinjet scrubber (485-80)	20 ¹	45 ¹	R 336.1901
150 sly impinjet scrubber (485-80)	25 ¹	35 ¹	R 336.1901
160 sly impinjet scrubber (485-80)	30 ¹	35 ¹	R 336.1901

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).

**FGBOILERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

One or more propane or natural gas-fired boilers, each with a maximum rated heat input of 100 million Btu per hour, and each controlled by a low-NOx burner. **(PTI No. 147-13)**

Emission Unit: NA

POLLUTION CONTROL EQUIPMENT

Low-NOx burner

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.05 lb/MMBtu ²	Test Protocol	FGBOILERS	SC V.1	R 336.1205(1)(a)
* Test protocol shall specify averaging time					

II. MATERIAL LIMIT(S)

1. The permittee shall burn only propane or natural gas in FGBOILERS. ² **(R 336.1205(1)(a))**
2. The fuel use for FGBOILERS covered by this general permit shall not exceed 1400 million standard cubic feet per 12-month rolling time period as determined at the end of each calendar month. ¹ **(R 336.1224, R 336.1225, R 336.1205(1)(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate FGBOILERS in accordance with manufacturer’s recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction. ² **(R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Verification of the NOx emission limit (0.05 pound of NOx emitted per million Btu of heat input), by testing at owner’s expense, in accordance with Department requirements may be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of the emission factor includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. ² **(R 336.1205(1)(a), R 336.2001, R 336.2003, R 336.2004)**

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 install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel use for FGBOILERS on a daily basis.² **(R 336.1205(1)(a))**
2. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period fuel use records for FGBOILERS. The records must indicate the total amount of fuel used in FGBOILERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1205(1)(a), 40 CFR 60.48c (g))**
3. The permittee shall keep on file, a demonstration that the low-NOx burner is designed to emit no more than 0.05 pound of NOx per million Btu of heat input (i.e., manufacturer's guarantee, test data, etc.).² **(R 336.1205(1)(a))**
4. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction of the control equipment, any maintenance performed and any testing results for FGBOILERS. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1702(a), R 336.1910)**

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 the following notifications to the AQD District Supervisor in accordance with 40 CFR 60.48c. **(40 CFR Part 60, Subparts A & Dc)**
 - a. A notification of the date when construction was commenced, submitted no later than 30 calendar days after such date.
 - b. A notification of the actual date of startup of the source, submitted within 30 calendar days after such date.
5. 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.² **(R 336.12001(3))**
6. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date.² **(R 336.2001(4))**
7. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test.² **(R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

1. The exhaust gases from FGBOILERS shall be discharged unobstructed vertically upwards to the ambient air from stack(s) with an exit point not less than one and one half times the building height (from ground level to point of discharge).² **(R 336.1225, 40 CFR 52.21 (c) & (d))**

IX. OTHER REQUIREMENT(S)

1. The permittee shall not replace or modify FGBOILERS, or any portion of FGBOILERS, including control equipment, unless all of the following conditions are met:² **(R 336.1201a(1))**
 - a. The permittee shall update the general permit by submitting a new Process Information Form (EQP5783) to the Permit Section and the District Supervisor; identifying the existing and new equipment a minimum of 10 days before the equipment is replaced or modified.
 - b. The permittee shall continue to meet all General PTI applicability criteria after the replacement or modification is complete.
 - c. The permittee shall keep records of the date and description of the replacement or modification.

Footnotes:

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).

**FGTACONITEMACT
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

The affected source is an existing taconite iron ore processing plant, that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. An existing affected source is a source that commenced construction or reconstruction before December 18, 2002. The regulations cover emissions from ore crushing and handling emission units, ore dryer stacks, indurating furnace stacks, finished pellet handling emission units, and fugitive dust emissions.

Emission Units: EUOREDRIYER1, EUOREDRIYER2, EUKILN1, EUKILN2, and FGDUSTCOLLECTORS

POLLUTION CONTROL EQUIPMENT

Cyclone pre-cleaners, wet scrubbers and dry electrostatic precipitators

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.008 gr/dscf	Test Protocol/Flow weighted mean concentration	All affected source Ore Crushing and Handling Emission Units: EU-CONV14-15-16 EU-CONV15.8-15.9 EU-CONV15.9-16.1 EU-CONV16.1-17.1 EU-CONV17.1-17.2 EU-CONV19 & 19A-17 EU-CONV13-17.1 EU-CONV15-15.1 EU-CONVEYOR1 EU-CONVEYOR12A-13 EU-CONVEYOR12B-13 EU-CONVEYOR4A-4A1 EU-CONVEYOR4B-4C EU-CONVEYOR4C-4D EU-FEEDMIXER1 EU-FEEDMIXER2 EU-PRIMARYCRUSHER EU-SCREENSRECLAIM	SC V.1	40 CFR 63.9590(a), 63.9621(a),(b), 40 CFR Part 63, Subpart RRRRR, Table 1(1)
2. PM	0.008 gr/dscf	Test Protocol/Flow weighted mean concentration	All affected Finished Pellet Handling emission units: EU-COOLER1 EU-COOLER2 EU-TRANSFERTOWER1 EU-TRANSFERTOWER2 EU-UNIT1LHF EU-UNIT2LHF EU-PROD CONV2	SC V.2	40 CFR 63.9590(a) 40 CFR Part 63, Subpart RRRRR, Table 1(5)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
3. PM	0.052 gr/dscf	Test Protocol	Each individual ore dryer: EUOREDRIYER1 EUOREDRIYER2	SC V.3	40 CFR 63.9590(a), 63.9621(a),(c), 40 CFR Part 63, Subpart RRRRR, Table 1(6)
4. PM	0.01 gr/dscf	Test Protocol/When processing magnetite	Each individual indurating furnace: EUKILN1 EUKILN2	SC V.4	40 CFR 63.9590(a), 63.9621(a), (c), 40 CFR Part 63, Subpart RRRRR, Table 1(3)
5. PM	0.03 gr/dscf	Test Protocol/When processing hematite	Each individual indurating furnace: EUKILN1 EUKILN2	SC V.5	40 CFR 63.9590(a), 63.9621(a),(c), 40 CFR Part 63, Subpart RRRRR, Table 1(4)

* Test protocol shall specify averaging time

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Except as provided in paragraph (2) of this section, for each wet scrubber applied to meet any particulate matter emission limit in Section I, the permittee must maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during an initial or subsequent performance test. If the daily average pressure drop or water flow rate is below the established operating limits, the permittee must follow the corrective action procedures specified in Condition 4 of this Section. **(40 CFR 63.9590(b)(1), 40 CFR 63.9622(a), 40 CFR 63.9622(f), 40 CFR 63.9634(e), and 40 CFR 63.9636)**
2. For each dynamic wet scrubber applied to meet any particulate matter emission limit in Section I, the permittee must maintain the daily average scrubber water flow rate and either the daily average fan amperage (a surrogate for fan speed as revolutions per minute) or the daily average pressure drop at or above the minimum levels established during an initial or subsequent performance test. If the daily average pressure drop or water flow rate is below the established operating limits, the permittee must follow the corrective action procedures specified in Condition 4 of this Section. **(40 CFR 63.9590(b)(2), 40 CFR 63.9622(a), 40 CFR 63.9622(f) 63.9634(f) and 63.9636)**
3. For each dry electrostatic precipitator applied to meet any particulate matter emission limit in Section I, the permittee must maintain either (1) the 6-minute average opacity of emissions exiting the control device stack; or (2) the daily average secondary voltage and daily average secondary current for each field, at or below the levels established during an initial or subsequent performance test. If demonstrating compliance using opacity, if the daily average opacity is above the operating limits established for the corresponding emission unit, the permittee must follow the corrective action procedures specified in Condition 4 of this section. If demonstrating compliance using daily average secondary voltage and secondary current, if the daily average is below the operating limit established for the corresponding emission unit, the permittee must follow the corrective action procedures specified in Condition 5 of this section. **(40 CFR 63.9590(b)(3), 63.6922(c), 63.6922(f), 63.9634(g) and 63.9636)**

4. If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, the permittee must follow the procedures in paragraphs (a) through (d) of this section.
 - a. You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits. **(40 CFR 63.9634(j)(1))**
 - b. If the initial corrective action required in paragraph (a) of this section was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After the second set of 10 calendar days allowed to implement corrective action, you must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits. **(40 CFR 63.9634(j)(2))**
 - c. (3) If the second attempt at corrective action required in paragraph (b) of this section was not successful, then you must repeat the procedures of paragraph (j)(2) of this section until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in 40 CFR 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action. **(40 CFR 63.9634(j)(3))**
 - d. (4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (c) of this section within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits. **(40 CFR 63.9634(j)(4))**
5. As required by 40 CFR 63.6(e)(1)(i), the permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by Section I. **(40 CFR 63.9600(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall demonstrate compliance with the particulate matter emission limit specified in SC I.1 for the Ore Crushing and Handling emission units (EU-CONV14-15-16, EU-CONV15.8-15.9, EU-CONV15.9-16.1, EU-CONV16.1-17.1, EU-CONV17.1-17.2, EU-CONV19 &19A-17,EU-CONV13-17.1, EU-CONV15-15.1, EU-CONVEYOR1, EU-CONVEYOR12A-13, EU-CONVEYOR12B-13, EU-CONVEYOR4A-4A1, EU-CONVEYOR4B-4C, EU-CONVEYOR4C-4D, EU-FEEDMIXER1, EU-FEEDMIXER2, EU-PRIMARYCRUSHER, EU-SCREENSRECLAIM) by testing at owner's expense, in accordance the requirements in 40 CFR 63.9621(b). The permittee may elect to test a representative unit in accordance with 40 CFR 63.9260(e – g) in lieu of testing each and every Ore Crushing and Handling emission unit. Testing will be conducted at least once during the five-year permit term and once every five years thereafter.² **(R 336.1213(3), R 336.2001(3) and (4), 40 CFR 63.9621(b), 40 CFR 63.9630(a) and 40 CFR 63.9640)**
2. The permittee shall demonstrate compliance with the particulate matter emission limit in SC I.2 for the Finished Pellet Handling emission units (EU-COOLER1, EU-COOLER2, EU-TRANSFERTOWER1, EU-TRANSFERTOWER2, EU-UNIT1LHF, EU-UNIT2LHF, EU-PROD CONV2) by testing at owner's expense, in

accordance with the requirements in 40 CFR 63.9621(b). The permittee may elect to test a representative unit in accordance with 40 CFR 63.9620(e)-(g) in lieu of testing each and every Finished Pellet Handling emission unit. Testing will be conducted at least once during the five-year permit term and once every five years thereafter. **(40 CFR 63.9620(e), 40 CFR 63.9621(b), 40 CFR 63.9630(c), 40 CFR 63.9640)**

3. The permittee shall demonstrate compliance with the particulate matter emission limit in SC I.3 for EUOREDRIYER1 and EUOREDRIYER2 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(c). Testing will be conducted at least once during the five-year permit term and once every five years thereafter. **(40 CFR 63.9621(c), 40 CFR 63.9630(d), 40 CFR 63.9640)**
4. The permittee shall demonstrate compliance with the particulate matter emission limit, when processing magnetite, specified in SC I.4 for EUKILN1 and EUKILN2 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(a). Testing will be conducted at least twice during the five-year permit term and twice every five year term thereafter. If magnetite is not processed during the five year permit term, testing will not be required. **(40 CFR 63.9621(a), 40 CFR 63.9630(a), 40 CFR 63.9630 (b), 40 CFR 63.9640)**
5. The permittee shall demonstrate compliance with the particulate matter emission limit, when processing hematite, specified in SC I.5 for EUKILN1 and EUKILN2 by testing at owner's expense, in accordance with the requirements in 40 CFR 63.9621(a). Testing will be conducted at least twice during the five-year permit term and twice every five year term thereafter. **(40 CFR 63.9621(a), 40 CFR 63.9630(a), 40 CFR 63.9630 (b), 40 CFR 63.9640)**

VI. MONITORING/RECORDKEEPING

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

1. Except as provided in paragraph (2) of this section, for each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in 40 CFR 63.9590(b)(1), the permittee must install, operate, and maintain a CPMS according to the requirements in 40 CFR 63.9632(b) through (e) and monitor the daily average pressure drop and daily average scrubber water flow rate according to the requirements in 40 CFR 63.9633. The permittee shall record all information needed to document conformance with these requirements. **(40 CFR 63.9631(b), 63.9632(b)-(e), 63.9633, and 63.9634(e)(2),(3))**
2. For each dynamic wet scrubber subject to the scrubber water flow rate and either the fan amperage or pressure drop operating limits in 40 CFR 63.9590(b)(2), the permittee must install, operate, and maintain a CPMS according to the requirements in 40 CFR 63.9632(b) through (e) and monitor the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop according to the requirements in 40 CFR 63.9633. The permittee shall record all information needed to document conformance with these requirements. **(40 CFR 63.9631(c), 63.9632(b)-(e), 63.9633, and 63.9634(f)(2)-(3))**
3. For each dry electrostatic precipitator subject to the operating limits in 40 CFR 63.9590(b)(3), the permittee must follow the monitoring requirements in paragraph (a) or (b). **(40 CFR 63.9631(d))**
 - a. If the operating limit the permittee chooses to monitor is the 6-minute average opacity of emissions in accordance with 40 CFR 63.9590(b)(3)(i), the permittee must install, operate, and maintain a COMS according to the requirements in 40 CFR 63.9632(f) and monitor the 6-minute average opacity of emissions exiting each control device stack according to the requirements in 40 CFR 63.9633.
 - b. If the operating limit the permittee chooses to monitor is average secondary voltage and average secondary current for each dry electrostatic precipitator field in accordance with 40 CFR 63.9590(b)(3)(ii), the permittee must install, operate, and maintain a CPMS according to the requirements in 40 CFR 63.9632(b) through (e) and monitor the daily average secondary voltage and daily average secondary current according to the requirements in 40 CFR 63.9633.

The permittee shall record all information needed to document conformance with these requirements.

(40 CFR 63.9631(b), 40 CFR 63.9632(b)-(e), 63.9633, 63.9634(g)(2))

4. The permittee must keep the following records:
 - a. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

- b. The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
 - c. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
(40 CFR 63.9642(a))
5. For each COMS, the permittee must keep the following records:
 - a. Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
 - b. Monitoring data for COMS during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).
 - c. Previous (that is, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
 - d. Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. **(40 CFR 63.9642(b))**
 6. The permittee must keep the records required in 40 CFR 63.9634 through 63.9636 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies to you. **(40 CFR 63.9642(c))**
 7. Your records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.9643(a))**
 8. As specified in 40 CFR 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.9643(b))**
 9. You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). You can keep the records offsite for the remaining 3 years. **(40 CFR 63.9643(c))**
 10. If the permittee uses any air pollution control device other than a baghouse, wet scrubber, dry electrostatic precipitator, or wet electrostatic precipitator, the permittee must submit a site-specific monitoring plan that includes the information in paragraphs (a) through (d). The monitoring plan is subject to approval by the Administrator. The permittee must maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request, and kept for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart. **(40 CFR 63.9631(f) and 63.9634(i))**
 - a. A description of the device.
 - b. Test results collected in accordance with 40 CFR 63.9621 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by this subpart.
 - c. A copy of the operation and maintenance plan required in 40 CFR 63.9600(b).
 - d. Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).
 11. For each CPMS required in 40 CFR 63.9631, the permittee must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in paragraphs (a) through (g) of this section. **(40 CFR 63.9632(b))**
 - a. Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected emission unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
 - b. Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system.
 - c. Performance evaluation procedures and acceptance criteria (e.g., calibrations).
 - d. Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1), (3), (4)(ii), (7), and (8).
 - e. Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d).
 - f. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
 - g. Corrective action procedures that you will follow in the event an air pollution control device, except for a baghouse, exceeds an established operating limit as required in 40 CFR 63.9600(b)(3).
 12. Unless otherwise specified, each CPMS must meet the requirements in paragraphs (a) and (b).
(40 CFR 63.9632(c))

- a. Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period and must have valid data for at least 95 percent of every daily averaging period.
 - b. Each CPMS must determine and record the daily average of all recorded readings.
13. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. **(40 CFR 63.9632(d))**
 14. The permittee must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.9632(e))**
 15. For each dry electrostatic precipitator subject to the opacity operating limit in 40 CFR 63.9590(b)(3)(i), the permittee must install, operate, and maintain each COMS according to the requirements in paragraphs (a) through (d) of this section. **(40 CFR 63.9632(f))**
 - a. The permittee must install each COMS and conduct a performance evaluation of each COMS according to 40 CFR 63.8 and Performance Specification 1 in appendix B to 40 CFR Part 60.
 - b. The permittee must develop and implement a quality control program for operating and maintaining each COMS according to 40 CFR 63.8. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS.
 - c. The permittee must operate and maintain each COMS according to 40 CFR 63.8(e) and the quality control program. The permittee must also identify periods the COMS is out of control, including any periods that the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.
 - d. The permittee must determine and record the 6-minute average opacity for periods during which the COMS is not out of control.
 16. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the permittee must monitor continuously (or collect data at all required intervals) at all times an affected source is operating. **(40 CFR 63.9633(a))**
 17. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or to fulfill a minimum data availability requirement. The permittee must use all the data collected during all other periods in assessing compliance. **(40 CFR 63.9633(b))**
 18. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not considered malfunctions. **(40 CFR 63.9633(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))**
4. The permittee must report each instance in which you did not meet an emission limitation in 40 CFR Part 63, Subpart RRRRR, including during periods of startup, shutdown or malfunction, and each instance in which you did not meet a work practice standard in 40 CFR 63.9591 or an operation and maintenance requirement in 40 CFR 63.9600. Deviations occurring during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Department's satisfaction that you were operating in accordance with 40 CFR 63.6(e)(1).

Deviations shall be reporting semiannually. **(40 CFR 63.9637, 40 CFR 63.9641(a), 40 CFR 63.9641(b), 40 CFR 63.9641(d), 40 CFR 63.9650, 40 CFR 63.6(e), 40 CFR 63.10(d)(5)(i))**

5. If the permittee had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your Malfunction Abatement Plan, you must submit an immediate Malfunction Abatement report according to the requirements in 40 CFR 63.10(d)(5)(ii). **(40 CFR 63.9641(c))**
6. If the permittee had three unsuccessful attempts of applying corrective action as described in 40 CFR 63.9634(j), then you must submit an immediate corrective action report. Within 5 calendar days after the third unsuccessful attempt at corrective action, you must submit to the District Supervisor a written report in accordance with 40 CFR 63.9634(j)(3) and (4). This report must notify that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits. **(40 CFR 63.9641(e))**
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 60 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.² **(R 336.12001(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.² **(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.² **(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 requirements of the National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing as specified in 40 CFR Part 63, Subparts A and RRRRR. **(40 CFR Part 63, Subparts A and RRRRR)**
2. The permittee must prepare, and at all times operate according to, a fugitive dust emissions control plan that describes in detail the measures that will be put in place to control fugitive dust emissions from the locations listed in paragraphs (a) through (f) below. **(40 CFR 63.9591(a)(1-6), (b) and 63.9635)**
 - a. Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);
 - b. Material transfer points;
 - c. Plant roadways;
 - d. Tailings basin;
 - e. Pellet loading areas; and
 - f. Yard areas.
3. The permittee must maintain a current copy of the fugitive dust emissions control plan onsite for the life of the affected source or until the source is no longer subject to the requirements of 40 CFR Part 63, Subpart RRRRR. The permittee must make the plan available for inspection upon request. **(40 CFR 63.9591(d))**
4. As required by 40 CFR 63.6(e)(1)(i), the permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by Section I. **(40 CFR 63.9600(a))**

5. The permittee must prepare, and at all times operate according to, a written operation and maintenance plan for each control device applied to meet any particulate matter emission limit in Section I and to meet the requirement of each indurating furnace subject to good combustion practices (GCP). The plan must explain why the chosen practices (i.e., quantified objectives) are effective in performing corrective actions or GCP in minimizing the formation of formaldehyde (and other products of incomplete combustion). The permittee must maintain a current copy of the operation and maintenance plan onsite, and make it available for inspection upon request. Each operation and maintenance plan must address the elements in paragraphs (a) through (c). **(40 CFR 63.9600(b) and 63.9636)**
- a. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. **(40 CFR 63.9600(b)(1))**
 - b. Corrective action procedures for continuous parameter monitoring systems (CPMS) for all air pollution control devices except for baghouses. In the event the permittee exceeds an established operating limit for an air pollution control device except for a baghouse, the permittee must initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. The corrective action procedures the permittee takes must be consistent with the installation, operation, and maintenance procedures listed in your site-specific CPMS monitoring plan in accordance with 40 CFR 63.9632(b). **(40 CFR 63.9600(b)(3) and 63.9634(j))**
 - c. The permittee must identify and implement a set of site-specific Good Combustion Practices (GCP) for each type of indurating furnace at the plant. These GCP should correspond to the permittee's standard operating procedures for maintaining the proper and efficient combustion within each indurating furnace. Good combustion practices include, but are not limited to, the elements listed in paragraphs (i) through (v). **(40 CFR 63.9600(b)(4))**
 - i. Proper operating conditions for each indurating furnace (e.g., minimum combustion temperature, maximum carbon monoxide concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing).
 - ii. Routine inspection and preventative maintenance and corresponding schedules of each indurating furnace.
 - iii. Performance analyses of each indurating furnace.
 - iv. Keeping applicable operator logs.
 - v. Keeping applicable records to document compliance with each element.
6. The permittee must develop a written startup, shutdown, and malfunction plan according to the provisions in 40 CFR 63.6(e)(3). **(40 CFR 63.9610(c),) 63.9650, 63.6(e)(3)**

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).

**FGBOILERS6-7
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Kewaunee Boilers 6 and 7 (FGBOILERS6-7) are located at the Pit Service Building. Each boiler is rated at 19.46 million BTU per hour. The boilers are capable of burning natural gas, No. 2 fuel oil and/or used oil fuel. **(Permits to Install Nos. 436-97, 219-04)**

Emission Unit: EUBOILER6, EUBOILER7

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas, No. 2 fuel oil, or used oil fuel in FGBOILERS6-7.² **(R 336.1301)**
2. The permittee shall not burn any used oil fuel in FGBOILERS6-7 except that generated from equipment operated by the permittee on the permittee's property.² **(R 336.1201(3))**
3. The used oil fuel burned in FGBOILERS6-7 shall not exceed sulfur content of 0.5 percent by weight, calculated on the basis of 150,000 BTU per gallon.² **(R 336.1201(3))**
4. The number 2 fuel oil burned in FGBOILERS6-7 shall not exceed sulfur content of 0.40 percent by weight, calculated on the basis of 18,000 BTU per pound.² **(R 336.1201(3))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not burn more than 200,000 gallons of used oil fuel per 12-month rolling time period. A monthly record of the amount of used oil fuel burned per 12-month rolling time period shall be kept on file for at least five years, and made available to the AQD upon request.¹ **(R 336.1225)**
2. The permittee must operate and maintain FGBOILERS6-7 in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include but is not limited to, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
3. The permittee may obtain approval from the Administrator to use an alternative to the work practice standards. **(40 CFR 63.7500(b))**
4. The permittee shall complete a tune-up of FGBOILERS6-7 every five (5) years (61 months) for boiler/process heaters utilizing an oxygen trim system and greater than 10 million Btu per hour. **(40 CFR 63.7540(a)(10), 63.7515(d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. For each shipment of fuel oil received, the permittee shall obtain from the fuel oil supplier a laboratory analysis of the sulfur and BTU content. The determination of sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87 or an alternative method approved by the AQD District Supervisor. For each fuel oil shipment received, the permittee shall also record the date received, source of fuel oil and supplier, and gallons received. These records shall be retained by the permittee for a minimum of five years, and made available to the AQD upon request.² **(R 336.1201(3))**
2. At least once per calendar year, the permittee shall have an analysis performed of the used oil fuel sulfur and BTU content. The determination of sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87 or an alternative method approved by the AQD District Supervisor. These records shall be retained by the permittee for a minimum of five years, and made available to the AQD upon request. ² **(R 336.1201(3))**
3. The permittee must keep a copy of each notification and report submittal to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three (3) years. **(40 CFR 63.7560(a), (b), and (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))**
4. The permittee shall submit boiler tune-up reports to the AQD upon request. **(40 CFR 63.7540(a)(10))**
5. The permittee must submit boiler tune-up compliance reports. Compliance reports must be postmarked or submitted by March 15th of the year following the tune-up and must cover the period starting from January 1 and ending December 31. Compliance reports must be submitted using the Compliance and Emission Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov>). If the reporting form is not available in CEDRI at the time the compliance report is due, a

hardcopy of the compliance report shall be submitted to the state and EPA Region 5. At the discretion of the Administrator, the permittee must submit these reports in the format specified by the Administrator. **(40 CFR 63.7550(b), 63.10(a)(5), and 63.7550(h)(3))**

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. SVBOILER6-7	34 inches ¹	38 feet ¹	R 336.1225

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGBOILERS6-7.² **(40 CFR Part 60, Subparts A & Dc)**
2. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.² **(40 CFR Part 63, Subpart DDDDD)**

Footnotes:

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

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

**FGNESHAP5D
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These new boilers or process heaters must comply with this subpart upon startup.

Emission Unit: EU-BOILER4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

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

II. MATERIAL LIMIT(S)

1. The permittee shall only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575.² **(40 CFR 63.7499(I))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must meet the requirements in paragraphs (a)(1) and (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) and (e) of 40 CFR 63.7500, stated in SC III.2 and SC III.3. The permittee must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of 40 CFR 63.7500, stated in SC III.4.² **(40 CFR 63.7500(a))**
 - a. The permittee must meet each work practice standard in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler. **(40 CFR 63.7500(a)(1))**
 - b. At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490, stated in SC IX.1), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**
2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards.² **(40 CFR 63.7500(b))**
3. The permittee must perform compliance tune-ups for FGNESHAP5D meeting the requirements in SC IX.5 according to the following frequency:² **(40 CFR 63.7500(e), 40 CFR 64.7515(d))**
 - a. For any unit of FGNESHAP5D greater than 10 MMBtu per hour must complete a tune-up no later than one year (13 months) after the initial startup of the unit. Subsequent tune-ups shall be conducted no more than one year (13 months) after the previous tune-up.
4. The permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR Part 63, Subpart DDDDD within the annual, biennial, or 5-year schedule as specified in 40 CFR 63.7515(d), stated in SC III.5, following the initial compliance date specified in 40 CFR 63.7495(a), stated

in SC IX.3. Thereafter, you are required to complete the annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d), stated in SC III.5.² **(40 CFR 63.7510(g))**

5. If the permittee is required to meet an applicable tune-up work practice standard, the permittee must:² **(40 CFR 63.7515(d))**
 - a. Conduct the first annual tune-up no later than 13-months after the initial startup of the new or reconstructed boiler or process heater, the first biennial tune-up no later than 25-months after the initial startup of the new or reconstructed boiler or process heater, or the first 5-year tune-up no later than 61-months after the initial startup of the new or reconstructed boiler or process heater.
 - b. Conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a; biennial performance tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.5.b; or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.c. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13-months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) must be conducted no more than 25-months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61-months after the previous tune-up.

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The boiler shall have a heat input capacity of greater than or equal to 10 MMBtu per hour.² **(40 CFR Part 63, Subpart DDDDD, Table 2)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).² **(40 CFR 63.7560(a))**
2. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.² **(40 CFR 63.7560(b))**
3. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3-years.² **(40 CFR 63.7560(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))**
4. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.2 through SC VII.10, and in Subpart A of 40 CFR Part 63.² **(40 CFR 63.7495(d))**

5. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified.² **(40 CFR 63.7545(a))**
6. As specified in 40 CFR 63.9(b)(4) and (5), if the permittee starts up the new or reconstructed affected source on or after January 31, 2013, the permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source.² **(40 CFR 63.7545(c))**
7. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies.² **(40 CFR 63.7550(a))**
8. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.10, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.11.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.11.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.11.c, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report.² **(40 CFR 63.7550(b))**
 - a. The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.3, and ending on December 31 after the compliance date that is specified for the source in 40 CFR 63.7495, stated in SC IX.3. When submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1, 2, or 5-years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
 - b. The first semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.3. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
 - c. Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1, 2, or 5-year period from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
 - d. Each subsequent semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**
9. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule.² **(40 CFR 63.7550(c))**
 - a. If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (xiv), and (xvii) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(1))**
 - b. 40 CFR 63.7550(c)(5) is as follows:
 - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.5.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.5.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.5.c. Include the date of the most recent burner inspection if it was not done annually,

biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**

v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**

10. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below.² **(40 CFR 63.7550(h))**

a. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

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
NA	NA	NA	NA

IX. OTHER REQUIREMENT(S)

1. 40 CFR Part 63, Subpart DDDDD applies to new or reconstructed affected sources as described in paragraph (a)(2) of 40 CFR 63.7490, as listed below.² **(40 CFR 63.7490(a))**

a. The affected source of 40 CFR Part 63, Subpart DDDDD is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in 40 CFR 63.7575, located at a major source. **(40 CFR 63.7490(a)(2))**

2. A boiler or process heater is:² **(40 CFR 63.7490(b))**

a. New if the permittee commences construction of the boiler or process heater after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences construction.

3. If the permittee has a new or reconstructed boiler or process heater, the permittee must comply with 40 CFR Part 63, Subpart DDDDD by April 1, 2013, or upon startup of each boiler or process heater, whichever is later.² **(40 CFR 63.7495(a))**

4. The permittee must be in compliance with the work practice standards of 40 CFR Part 63, Subpart DDDDD.² **(40 CFR 63.7505(a))**

5. The permittee must demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in paragraphs (a)(10) through (13) of 40 CFR 63.7540, as listed below.² **(40 CFR 63.7540(a))**

a. If the boiler or process heater has a heat input capacity of 10 MMBtu per hour or greater, the permittee must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. The tune-up must be conducted while burning the type of fuel or fuels in case of units that routinely burn a mixture) that provided the majority

of the heat input to the boiler or process heater over the 12-months prior to the tune-up. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. **(40 CFR 63.7540(a)(10))**

- i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36-months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36-months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
 - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
 - vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a)(10)(vi))**
 - (1) The concentrations of CO in the effluent stream in ppm by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
 - (2) A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
 - (3) The type and amount of fuel used over the 12-months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
 - b. If the boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 MMBtu per hour and the unit is in the units designed to burn gas 1 subcategory, the permittee must conduct a tune-up of the boiler or process heater every 5-years as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph (a)(10)(i) of 40 CFR 63.7540 until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72-months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5-years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**
 - c. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30-calendar days of startup. **(40 CFR 63.7540(a)(13))**
6. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 applies to the permittee.² **(40 CFR 63.7565)**

Footnotes:

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

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Abbreviations and Acronyms

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

AQD	Air Quality Division	MM	Million
acfm	Actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	MW	Megawatts
BTU	British Thermal Unit	NA	Not Applicable
°C	Degrees Celsius	NAAQS	National Ambient Air Quality Standards
CAA	Federal Clean Air Act	NESHAP	National Emission Standard for Hazardous Air Pollutants
CAM	Compliance Assurance Monitoring	NMOC	Non-methane Organic Compounds
CEM	Continuous Emission Monitoring	NOx	Oxides of Nitrogen
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	Carbon Monoxide	NSR	New Source Review
COM	Continuous Opacity Monitoring	PM	Particulate Matter
department	Michigan Department of Environment, Great Lakes, and Energy	PM-10	Particulate Matter less than 10 microns in diameter
dscf	Dry standard cubic foot	pph	Pound per hour
dscm	Dry standard cubic meter	ppm	Parts per million
EPA	United States Environmental Protection Agency	ppmv	Parts per million by volume
EU	Emission Unit	ppmw	Parts per million by weight
°F	Degrees Fahrenheit	PS	Performance Specification
FG	Flexible Group	PSD	Prevention of Significant Deterioration
GACS	Gallon of Applied Coating Solids	psia	Pounds per square inch absolute
GC	General Condition	psig	Pounds per square inch gauge
gr	Grains	PeTE	Permanent Total Enclosure
HAP	Hazardous Air Pollutant	PTI	Permit to Install
Hg	Mercury	RACT	Reasonable Available Control Technology
hr	Hour	ROP	Renewable Operating Permit
HP	Horsepower	SC	Special Condition
H ₂ S	Hydrogen Sulfide	scf	Standard cubic feet
HVLP	High Volume Low Pressure *	sec	Seconds
ID	Identification (Number)	SCR	Selective Catalytic Reduction
IRSL	Initial Risk Screening Level	SO ₂	Sulfur Dioxide
ITSL	Initial Threshold Screening Level	SRN	State Registration Number
LAER	Lowest Achievable Emission Rate	TAC	Toxic Air Contaminant
lb	Pound	Temp	Temperature
m	Meter	THC	Total Hydrocarbons
MACT	Maximum Achievable Control Technology	tpy	Tons per year
MAERS	Michigan Air Emissions Reporting System	µg	Microgram
MAP	Malfunction Abatement Plan	VE	Visible Emissions
EGLE	Michigan Department of Environment, Great Lakes, and Energy	VOC	Volatile Organic Compounds
mg	Milligram	yr	Year
mm	Millimeter		

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU KILN1.

NO_x Monitoring Continuous Emission Monitoring System (CEMS) Requirements

1. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
2. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR, Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).
3. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above 2270 lbs NO_x/hr during normal operations, measured on a 30-day rolling average. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CERMS downtime and corrective action.
 - c. A report of the total operating time of EUKILN1 during the reporting period.
 - d. A report of any periods that the CERMS exceeds the instrument range.
 - e. If no exceedances or CERMS downtime occurred during the reporting period, the permittee shall report that fact.

Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUOREDRIYER1, EUOREDRIYER2, EUKILN1, EUKILN2, EUOILER1 and EUOILER3, as applicable. Alternative formats must be approved by the AQD District Supervisor.

Coal Analysis

1. For each fuel shipment barge received, the permittee shall obtain from the supplier a laboratory analysis of the ash content, sulfur content, and BTU content. The determination of sulfur content shall be carried out in accordance with a procedure acceptable to the Air Quality Division. For each fuel shipment received, the permittee shall record the date received, source of fuel and shipper, and tons received.
2. At least once per calendar year, the permittee shall have one analysis performed of the ash content, sulfur content, and BTU content for the coal burned:

The analyses, required in Paragraph 2, shall be independent of the analyses received from the supplier with each fuel delivery in Paragraph 1. The determination of fuel sulfur content shall be carried out in accordance with ASTM Method 3177-75, Method 4239-85, or a method approved by the District Supervisor.

Used Oil Analysis

1. For each month that fuel oil is combusted, the permittee shall obtain a representative sample of the used oil in the 1.5 million gallon used oil tank. By the fifteenth day of each month, the permittee shall perform an analysis of the used oil for the following parameters for the previous calendar month's sample:
 - a. Density, in pounds per gallon
 - b. Total halogens, in parts per million by weight
 - c. Sulfur content, in percent by weight
 - d. Arsenic content, in parts per million by weight
 - e. Cadmium content, in parts per million by weight
 - f. Chromium (total) content, in parts per million by weight
 - g. Lead content, in parts per million by weight

These analyses shall be carried out in accordance with procedures specified or approved by the Air Quality Division. The determination of sulfur content shall be carried out in accordance with one of the following procedures: ASTM Method D129-64 or ASTM Method 1552-83 or ASTM Method 2622-87 or ASTM Method 1266-87, or a method approved by the District Supervisor.

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-B4885-2008. 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-B4885-2008 is being reissued as Source-Wide PTI No. MI-PTI-B4885-20XX.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	201600132	Add EUBOILER6 and EUBOILER7, these units and supporting structures were purchased from Empire Iron Mining Partnership.	FGBOILERS6-7
147-13	NA	A General Permit for one or more propane or natural gas-fired boilers, each with a maximum rated heat input of 100 million Btu per hour, and each controlled by a low-NOx burner.	FGBOILERS
148-12A	NA	Modify methods of compliance with best available retrofit technology (BART) to address Michigan's regional haze SIP. Company is choosing to add a NOx CERMS to EUKILN1 to show compliance with the emission limit.	EUOREDRIYER1 EUKILN1 FGBOILERS1-2
NA	200900028	All references to and the ability to utilize coke breeze and petroleum coke were removed from MI-ROP-B4885-2008.	EUKILN1 EUKILN2

The following ROP amendments or modifications were issued after the effective date of ROP No. MI-ROP-B4885-2017.

Permit to Install Number	ROP Revision Application Number/Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
202-16	201800064 / August 14, 2018	Incorporate PTI 202-16 which was to install a 300MMBtu/hr natural gas boiler with low NOx burners (EU-BOILER4). EUBOILER2 has been permanently dismantled and remove from the facility, so this emission unit has been removed from the ROP, and FGBOILERS1-2, has been changed to an emission unit table (EUBOILER1) instead of a Flexible Group Table.	EUBOILER1 EUBOILER2 EU-BOILER4 FGNESHAP5D

Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in EUOREDRIYER1, EUOREDRIYER2, EUKILN1, EUKILN2, EUBOILER1 and EUBOILER3.

Formula and Procedure for Determining Emissions

The calendar month emission rate, in ton(s), is calculated using the following equation:

$$E_r = (\text{ppm}_w \times D_n \times U_r \times (1.0 - (R_e / 100)) / 1,000,000) / 2000$$

Where:

- E_r = the calendar month emission rate calculated for each contaminant in ton(s);
- ppm_w = the concentration of each contaminant in part(s) per million, by weight;
- D_n = the density of the used oil in pounds per gallon;
- U_r = the calendar month usage rate of used oil burned in gallons;
- R_e = the percentage removal efficiency of each contaminant using the values in the following table:

Pollutant	EUKILN1	EUKILN2	EUBOILER1	EUBOILER3	EUOREDRIYER1	EUOREDRIYER2
Arsenic	95	95	0	0	95	95
Cadmium	95	95	0	0	95	95
Total Chromium	95	95	0	0	95	95
Lead	95	95	0	0	95	95

The values for ppm_w and D_n shall be based on the most recent used oil analysis results.

The rolling 12-calendar month emission rate is calculated by summing the E_r 's for the previous 12 calendar months.

Applicant shall keep a record of each calendar month's usage rate of used oil burned in each process or process equipment referenced in this permit. By the fifteenth day of each calendar month, the applicant shall calculate the emissions of arsenic, cadmium, chromium and lead for the previous calendar month and 12-calendar month period for each process or process equipment referenced in this permit. All data and calculations shall be kept on file, in a format acceptable to the District Supervisor, for a period of at least five years and shall be submitted to the Air Quality Division with the semiannual reports specified in requirement tables in this Renewable Operating Permit.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

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

B. Other Reporting

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