|  |  |  |
| --- | --- | --- |
|  | **MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY****AIR QUALITY DIVISION** |  |
| EFFECTIVE DATE: November 4, 2021ISSUED TO**Michigan Sugar Company – Bay City Factory**State Registration Number (SRN): B1493LOCATED AT2600 South Euclid Avenue, Bay City, Bay County, Michigan 48706  |
|  |
| **RENEWABLE OPERATING PERMIT**Permit Number: MI-ROP-B1493-2021Expiration Date: November 4, 2026Administratively Complete ROP Renewal Application Due Between May 4, 2025 and May 4, 2026This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee’s authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act. |

|  |
| --- |
| **SOURCE-WIDE PERMIT TO INSTALL**Permit Number: MI-PTI-B1493-2021This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTl terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act. |

Michigan Department of Environment, Great Lakes, and Energy

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chris Hare, Bay City District Supervisor **TABLE OF CONTENTS**

[AUTHORITY AND ENFORCEABILITY 3](#_Toc86905917)

[A. GENERAL CONDITIONS 4](#_Toc86905918)

[Permit Enforceability 4](#_Toc86905919)

[General Provisions 4](#_Toc86905920)

[Equipment & Design 5](#_Toc86905921)

[Emission Limits 5](#_Toc86905922)

[Testing/Sampling 5](#_Toc86905923)

[Monitoring/Recordkeeping 6](#_Toc86905924)

[Certification & Reporting 6](#_Toc86905925)

[Permit Shield 7](#_Toc86905926)

[Revisions 8](#_Toc86905927)

[Reopenings 8](#_Toc86905928)

[Renewals 9](#_Toc86905929)

[Stratospheric Ozone Protection 9](#_Toc86905930)

[Risk Management Plan 9](#_Toc86905931)

[Emission Trading 9](#_Toc86905932)

[Permit to Install (PTI) 10](#_Toc86905933)

[B. SOURCE-WIDE CONDITIONS 11](#_Toc86905934)

[C. EMISSION UNIT SPECIAL CONDITIONS 14](#_Toc86905935)

[EMISSION UNIT SUMMARY TABLE 14](#_Toc86905936)

[EUBOILER8 17](#_Toc86905937)

[EULIMEKILN 22](#_Toc86905938)

[EUPELLETPRDCTN 25](#_Toc86905939)

[EUANAEROBIC DIGESTER 29](#_Toc86905940)

[EUCOOLINGTOWER 31](#_Toc86905941)

[D. FLEXIBLE GROUP SPECIAL CONDITIONS 33](#_Toc86905942)

[FLEXIBLE GROUP SUMMARY TABLE 33](#_Toc86905943)

[FGBOILERS 34](#_Toc86905944)

[FGRULE290 38](#_Toc86905945)

[E. NON-APPLICABLE REQUIREMENTS 41](#_Toc86905946)

[APPENDICES 42](#_Toc86905947)

[Appendix 1. Acronyms and Abbreviations 42](#_Toc86905948)

[Appendix 2. Schedule of Compliance 43](#_Toc86905949)

[Appendix 3. Monitoring Requirements 43](#_Toc86905950)

[Appendix 4. Recordkeeping 43](#_Toc86905951)

[Appendix 5. Testing Procedures 43](#_Toc86905952)

[Appendix 6. Permits to Install 44](#_Toc86905953)

[Appendix 7. Emission Calculations 45](#_Toc86905954)

[Appendix 8. Reporting 45](#_Toc86905955)

[Appendix 9. Fugitive Dust Plan 45](#_Toc86905956)

# AUTHORITY AND ENFORCEABILITY

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

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

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

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

# A. GENERAL CONDITIONS

## Permit Enforceability

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

## General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as “state-only” are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee’s own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
	1. 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.
	2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
	3. Inspect, at reasonable times, any of the following:
		1. Any stationary source.
		2. Any emission unit.
		3. Any equipment, including monitoring and air pollution control equipment.
		4. Any work practices or operations regulated or required under the ROP.
	4. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**
6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

## Equipment & Design

1. 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)**
2. 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

1. 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))**
	1. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
	2. A limit specified by an applicable federal new source performance standard.

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

1. 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:
	1. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.1 **(R 336.1901(a))**
	2. Unreasonable interference with the comfortable enjoyment of life and property.1**(R 336.1901(b))**

## Testing/Sampling

1. 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)**
2. 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))**
3. 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

1. 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))**
	1. The date, location, time, and method of sampling or measurements.
	2. The dates the analyses of the samples were performed.
	3. The company or entity that performed the analyses of the samples.
	4. The analytical techniques or methods used.
	5. The results of the analyses.
	6. The related process operating conditions or parameters that existed at the time of sampling or measurement.
2. 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

1. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
2. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
3. 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))**
4. 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))**
	1. 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).
	2. 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.
	3. 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.
5. 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))**
	1. 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.
	2. 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.
6. 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))**
7. 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))**
8. 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

1. 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))**
	1. The applicable requirements are included and are specifically identified in the ROP.
	2. 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.

1. Nothing in this ROP shall alter or affect any of the following:
	1. 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))**
	2. 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))**
	3. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
	4. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**
2. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
	1. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
	2. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
	3. 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))**
	4. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
	5. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
3. 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

1. 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)**
2. 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))**
3. 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))**
4. 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

1. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
	1. 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))**
	2. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
	3. 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))**
	4. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

## Renewals

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

## Stratospheric Ozone Protection

1. 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.
2. 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

1. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
2. 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):
	1. June 21, 1999,
	2. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
	3. The date on which a regulated substance is first present above a threshold quantity in a process.
3. 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.
4. 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

1. 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)

1. 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))**
2. 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)**
3. 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)**
4. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.2 **(R 336.1201(4))**

47. The conditions contained in this ROP for which a Consent Order is the only identified underlying applicable requirement shall be considered null and void upon the effective date of termination of the Consent Order. The effective date of termination is defined for the purposes of this condition as the date upon which the Termination Order is signed by the AQD Division Director.

**Footnotes:**

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

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

# B. SOURCE-WIDE CONDITIONS

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

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

**SOURCE-WIDE CONDITIONS**

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. Permittee shall comply with applicable provisions of R 336.1371 and R 336.1372 for fugitive dust sources or emissions. Permittee shall comply with the provisions of the permittee’s fugitive dust control program presented in Appendix 9. **(R 336.1371, R 336.1372)**

1. The Permittee shall upon request of the AQD District Supervisor, as part of the ROP renewal application process or at any time the Permittee’s fugitive dust control program fails to address or inadequately addresses an event which leads to fugitive dust issues, amend the fugitive dust control program. The amended program shall be completed within 30 days of the event, request or application, and submitted to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of the submittal, the amended fugitive dust control program shall be considered approved. Until an amended program is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable regulations. **(R 336.1371, R 336.1372)**

**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. Permittee shall maintain, and provide upon request, copies of dust complaint logs, daily logs of dust suppressant applications and paved area sweeping, as well as other records showing compliance with applicable provisions of R 336.1371 and R 336.1372. **(R 336.1213(3), R 336.1371, R 336.1372)**

**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. Report shall be postmarked or received by 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. Report shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

# C. EMISSION UNIT SPECIAL CONDITIONS

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

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

## EMISSION UNIT SUMMARY TABLE

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

| **Emission Unit ID** | **Emission Unit Description****(Including Process Equipment & Control Device(s))** | **Installation****Date/****Modification Date** | **Flexible Group ID** |
| --- | --- | --- | --- |
| EUBOILER#6 | 180 million BTUs per hour heat input, 150,000 pounds steam per hour, natural gas fired boiler that supplies process steam and heat to the facility. The boiler is equipped with a low NOx burner and flue gas recirculation and oxygen trim. | 01-01-199110-30-1995 | FGBOILERS |
| EUBOILER#7 | 180 million BTUs per hour heat input, 150,000 pounds steam per hour, natural gas fired boiler that supplies process steam and heat to the facility. The boiler is equipped with a low NOx burner and flue gas recirculation and oxygen trim. | 01-01-199110-30-1995 | FGBOILERS |
| EUBOILER8 | 243 million BTUs per hour heat input, 200,000 pounds steam per hour, natural gas-fired high-pressure boiler that supplies process steam and heat to the facility. The boiler is equipped with a low NOx burner and flue gas recirculation and oxygen trim.The most recent PTI for this emission unit is PTI No. 245-10. | 08-01-2012 | NA |
| EULIMEKILN | The lime kiln is a vertical shaft lime kiln (Eberhardt) model KR 380. The lime kiln is 18” diameter by 165” height. The capacity of the lime kiln is 13,200 cubic feet. The lime kiln is part of the sugar purification and filtration processes. Combustion of fuel (coal/coke) and calcination of limestone occurs within the single chamber of the pressurized vertical kiln. Lime (CaO) produced in the lime kiln is introduced into the sugar making process as milk of lime [Ca(OH)2] at the carbonation tanks. The CO2 is used for pH adjustment in the carbonation tanks. SO2 generated during the process is in part recaptured as calcium sulfate by-product in later stages of the process. During normal production activities, the lime kiln exhaust travels through the limestone at the top of the kiln and is directed to the Gas Washer (aka scrubber), pumped to a pressure header, and distributed to the carbonation tanks. Excess gas may vent from the pressure header to atmosphere through SVLIMEKILNPRESSRELF. During annual startup of the lime kiln or malfunction events, the lime kiln can exhaust uncontrolled through SVLIMEKILNEASTSTACK and SVLIMEKILNWESTSTACK.The most recent PTI for this emission unit is PTI No. 458-84. | 01-01-198412-07-1984 | NA |
| EUPELLETPRDCTN | In the pellet production area, milled pulp is cooled in two pellet coolers. The pellet production area is made up of two pellet coolers (one vertical and one horizontal), conveyors, and storage silo. The two pellet coolers have the capacity to cool up to 850 tons of beet pulp pellets per day. The two pellet coolers are each controlled by separate cyclones and the material handling area/ conveyor area is controlled by a third cyclone. The two Beckert & Hiester, and unknown brand cyclones, are in parallel and are all connected to the wet scrubber (Emetrol) to control fine particulate.The most recent PTI for this emission unit is PTI No. 309-86A. | 01-01-198404-15-1988 | NA |
| EUANAEROBIC DIGESTER | The wastewater treatment system includes an anaerobic digesting system ("ANAMET" tank) with a flare. The flare burns gas generated in the anaerobic digesting system. The most recent PTI for this emission unit is PTI No. 54-86.  | 10-15-198601-29-198801-01-1991 | NA |
| EU-COOLINGTOWER | The counter current flow cooling tower is used to cool water from the barometric condensing operation. Ammonia associated with EUCOOLINGTOWER was extracted along with sugar during processing and is present in the condensate waters being cooled prior to reuse or discharge. Ammonia emissions are the result of rising air through the cooling tower stripping the ammonia from the condensate water.The most recent PTI for this emission unit is PTI No. 265-00. | 07-24-2001 | NA |
| EURULE290 | EUMOLASSESDESUG - equipment used to remove sugar from molasses through chromatographic separation.  | 1999 | FGRULE290 |
| OMI System for on-site wastewater system  | 2014 |

##

## EUBOILER8

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

243 million BTUs per hour heat input, 200,000 pounds steam per hour, natural gas-fired high pressure boiler that supplies process steam and heat to the facility. The boiler is equipped with a low NOx burner and flue gas recirculation and oxygen trim.

The most recent PTI for this emission unit is PTI No. 245-10.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Low NOx burner and flue gas recirculation (FGR)

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NO2
 | 0.20lb/MMBTUheat input2 | 30-day rolling average as determined each day the boiler operates | EUBOILER8 | SC VI.2, VI.3, VI.4, VI.6 | **40 CFR 60.44b** |
| 1. NOx
 | 0.09lb/MMBTUheat input2 | 30-day rolling average as determined each day the boiler operates | EUBOILER8 | SC VI.2, VI.3, VI.4, VI.6 | **R 336.1205(1)(a)****R 336.2802(4)****R 336.2803****R 336.2804****40 CFR 52.21(a)(2), (c), and (d)** |
| 1. NOx
 | 21.9 pph2 | Hourlyb | EUBOILER8 | SC V.1, VI.2, VI.4 | **R 336.1205(1)(a)and (1)(b)****R 336.2802(4)****R 336.2803****R 336.2804****40 CFR 52.21(a)(2), (c), and (d)** |
| 1. NOx
 | 76.1 TPY2 | 12-month rolling time period as determined at the end of each calendar month | EUBOILER8 | SC V.1, VI.7, VI.2 | **R 336.1205(1)(a)****and (1)(b)****R 336.2802(4)** |
| 1. CO
 | 0.08 lb/MMBTU heat input2a | Hourlyb | EUBOILER8 | SC V.1, VI.1, VI.4, VI.6 | **R 336.1205(1)(a)** **and (1)(b)****R 336.2802(4)****R 336.2804****40 CFR 52.21(a)(2) and (d)** |
| 1. CO
 | 20 pph2 | Hourlyb | EUBOILER8 | SC V.1 | **R 336.1205(1)(a)** **and (1)(b)****R 336.2802(4)****R 336.2804****40 CFR 52.21(a)(2) and (d)** |
| 1. PM2.5
 | 1.8 pph2 | Hourly | EUBOILER8 | SC V.4, VI.4(h) | **R 336.1205(1)(a)** **and (1)(b)****R 336.2802(4)****R 336.2803****R 336.2804** **40 CFR 52.21(a)(2), (c), and (d)** |

a Based on 84 lbs/mmscf fuel usage and a conversion factor of 1020 BTU/scf for natural gas.

b If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements.

**II. MATERIAL LIMIT(S)**

1. The permittee shall only burn pipeline quality natural gas in EUBOILER8.2  **(R 336.1205, R 336.1225, R 336.1702, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), 40 CFR Part 60, Subpart Db)**

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

1. The permittee shall not operate EUBOILER8 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days of initial start-up, and is implemented and maintained. The MAP shall, at a minimum, specify the following:

a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement;

b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures;

c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits;

1. Identification of the source and O2 or CO2 operating ranges for varying loads, and any other appropriate operating variables, shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be maintained.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.2  **(R 336.1911)**

1. Start-up is defined as the period of time from initiation of combustion firing until the unit reaches steady state operation and steam is provided for use.2 **(R 336.1205(1)(a), R 336.1912)**
2. The permittee shall not operate EUBOILER8 unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during start-up and shutdown, and the plan is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved.2 **(R 336.1911, R 336.1912)**
3. 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 EUBOILER8.2 **(40 CFR Part 60, Subparts A and Db)**

5. Within 30-days after initial startup of EUBOILER8, the permittee shall submit to the AQD District Supervisor, for review and approval, a protocol describing reasonable measures to minimize CO emissions from EUBOILER8. The plan will not require a CO CEMS but shall include, at a minimum, a description of the steps that will be taken to minimize CO. Alternate formats or revisions to the approved protocol must be approved by the AQD District Supervisor.2 **(R 336.1201(3), R 336.2802, R 336.2804, 40 CFR 52.21(d))**

6. The permittee shall maintain and operate EUBOILER8 in a satisfactory manner using efficient combustion practices. Satisfactory operation includes operating EUBOILER8 according to the requirements specified in the CO minimization plan, as required under SC III.5.2 **(R 336.1201(3), R 336.2802, R 336.2804, 40 CFR 52.21(d))**

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

1. The permittee shall not operate EUBOILER8 unless the low NOx burners and flue gas recirculation system are installed, maintained, and operated in a satisfactory manner.2 **(R 336.1910)**

2. The maximum design heat input capacity of EUBOILER8 shall not exceed 243 MMBtu per hour on a fuel heat input basis.2  **(R 336.1205(1)(a) and (1)(b), 40 CFR Part 60, Subpart Db)**

3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the NOx emissions and oxygen or carbon dioxide (O2 or CO2) content of the exhaust gas from EUBOILER8 on a continuous basis.2 **(R 336.1205(1)(a),** **R 336.2802(4), R 336.2803, R 336.2804, 40 CFR 52.21(a)(2), (c), and (d), 40 CFR 60.48b)**

**V. TESTING/SAMPLING**

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

1. The permittee shall verify Carbon Monoxide and Nitrogen Oxide emission rates from EUBOILER8 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 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.  **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

1. The permittee shall verify the Carbon Monoxide and Nitrogen Oxide emission rate from EUBOILER8 within 24 months after issuance of ROP-MI-B1493-2021, and at a minimum, every five years from the date of the last test thereafter. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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

4. Upon request of the AQD District Supervisor, the permittee shall verify Particulate Matter (PM) 2.5 emission rates from EUBOILER8 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 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.  **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

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

**VI. MONITORING/RECORDKEEPING**

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, R 336.2802(4), R 336.2803, R 336.2804, 40 CFR 52.21(a)(2), (c), and (d))**

2. The permittee shall continuously monitor and record, in a satisfactory manner, the NOx emissions and oxygen or carbon dioxide (O2 or CO2) content of the exhaust gas from EUBOILER8. The permittee shall operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 5 and shall use the CEMS data for determining compliance with SC I.1 and I.2.2 **(R 336.1205(1)(a),** **R 336.2802(4), R 336.2803, R 336.2804, 40 CFR 52.21(a)(2), (c), and (d), 40 CFR 60.48b)**

3. The permittee shall keep, in a satisfactory manner, 30-day rolling average NOx emission rate records for EUBOILER8, as required by SC I.1. The permittee shall keep all records on file and make them available to the Department upon request.2 **(R 336.1205(1)(a),** **R 336.2802(4), R 336.2803, R 336.2804, 40 CFR 52.21(a)(2), (c), and (d), 40 CFR 60.44b)**

4. The permittee shall maintain records 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:

1. Compliance tests and any testing required under the special conditions of this permit;
2. Monitoring data;
3. Daily totals of NOx emissions as recorded by CEMS;
4. Verification of heat input capacity required to show compliance with SC IV.2;
5. Identification, type, and the amounts of fuel combusted in EUBOILER8 on a calendar month basis;
6. Records of the duration of all times EUBOILER8 is operated under start-up or shutdown conditions as defined in SCs III.2 and III.3;
7. All records required by 40 CFR 60.7 and 60.49b;
8. Emissions data from 2013 or more recent performance test will be used to verify compliance for PM2.5;
9. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f).2 **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1401, R 336.1702(a), R 336.1901, R 336.1912, R 336.2802(4), R 336.2803, R 336.2804,
40 CFR 52.21(a)(2), (c), and (d), 40 CFR 60.7(f))**

5. Monitoring and recordkeeping of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Db. All source emissions data and operating data shall be submitted to the District Supervisor, Air Quality Division, in an acceptable format within 30 days following the end of the quarter in which the data was collected.2 **(40 CFR Part 60, Subparts A and Db)**

6. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage in EUBOILER8, on a daily basis, when the boiler is operating.2  **(R 336.1205, R 336.1225, R 336.1702, R 336.1901, R 336.1910, R 336.2802, 40 CFR 52.21, 40 CFR Part 60, Subpart Db)**

7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx emission calculation records for EUBOILER8, as required by SC I.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request.2 **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

8. The Continuous Emission Monitoring System (CEMS) for NOx and O2 shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and Performance Specifications (PS) 2 and 3 of Appendix B, 40 CFR Part 60 in Appendix 5.**(R 336.1213(3), 40 CFR Part 60.48b(b) and (e)(2))**

9. The permittee shall keep, in a satisfactory manner, records of any activities performed to minimize CO as specified by the CO minimization plan for EUBOILER8, as required by SC III.5. The permittee shall keep all records on file at the facility and make them available to the Department upon request.2 **(R 336.1205, R 336.2802, R 336.2804, 40 CFR 52.21 (d))**

**See Appendix 5**

**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 orreceived by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

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

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Diameter / Dimensions****(inches)** | **Minimum Height Above Ground****(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SVBLR8
 | 722 | 802 | **R 336.1225, R 336.2803, R 336.2804** |

**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).

## EULIMEKILN

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

The lime kiln is a vertical shaft lime kiln (Eberhardt) model KR 380. The lime kiln is 18” diameter by 165” height. The capacity of the lime kiln is 13,200 cubic feet. The lime kiln is part of the sugar purification and filtration processes. Combustion of fuel (coal/coke) and calcination of limestone occurs within the single chamber of the pressurized vertical kiln. Lime (CaO) produced in the lime kiln is introduced into the sugar making process as milk of lime [Ca(OH)2] at the carbonation tanks. The CO2 is used for pH adjustment in the carbonation tanks. SO2 generated during the process is in part recaptured as calcium sulfate by-product in later stages of the process. During normal production activities the lime kiln exhaust travels through the limestone at the top of the kiln and is directed to the Gas Washer (aka scrubber), pumped to a pressure header, and distributed to the carbonation tanks. Excess gas may vent from the pressure header to atmosphere through SVLIMEKILNPRESSRELF. During annual startup of the lime kiln or malfunction events, the lime kiln can exhaust uncontrolled through SVLIMEKILNEASTSTACK and SVLIMEKILNWESTSTACK.

The most recent PTI for this emission unit is PTI No. 458-84.

**Flexible Grouping ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. PM | 0.20 lb / 1,000 lbs of exhaust gases, calculated on a dry gas basis2 | Hourly | EULIMEKILN | SC IV.1  | **R 336.1331(1)(a)** |
| 2. SO2 | 8.0 pph2 | Hourly a | EULIMEKILN | SC V.1, VI.1, VI.2, VI.3b | **R 336.1201(3)****R 336.1402** |
| 3. SO2 | 35.0 tpy2 | 12-month rolling time period | EULIMEKILN | SC V.1, VI.1, VI.2, VI.3 | **R 336.1201(3)** |
| 4. Opacity | 20% opacity | 6-Minute Average | EULIMEKILN | SC VI.4 | **R 336.1301(1)** |

a If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements.

b Samples of coke or anthracite coal shall be collected and analyzed in the manner specified in Appendix 5 to determine the concentration of sulfur in the fuel in units of pounds per million BTU.

**II. MATERIAL LIMIT(S)**

NA

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

NA

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

Permittee shall not operate the lime kiln unless the scrubber is installed and operating properly.2 **(R 336.1201(3))**

**V. TESTING/SAMPLING**

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

1. At least once per sugar production campaign, the permittee shall verify the vendor supplied sulfur content data by conducting an independent analysis in accordance with ASTM methods as outlined in Appendix 5.
**(R 336.1213(3))**

**See Appendix 5**

**VI. MONITORING/RECORDKEEPING**

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

1. Permittee shall keep monthly records of the amount of coke or anthracite coal used in the lime kiln. **(R 336.1213(3))b**

1. Permittee shall monitor and record the sulfur content of the coke or anthracite coal charged to the lime kiln on an intermittent basis in a manner and with instrumentation acceptable to the Air Quality Division.2 **(R 336.1201(3))**
2. Records shall be maintained of the coke or anthracite coal analysis of all shipments of coke or anthracite coal as supplied by the vendor(s) and of all independent coke or anthracite coal analysis conducted by permittee. This record shall include the percent sulfur content and heat input in BTUs per pound of coke or anthracite coal used in the lime kiln. **(R 336.1213(3))**
3. The permittee shall perform and record the results of a non-certified visible emissions check on EULIMEKILN at least once per operating day when EULIMEKILN is venting to the atmosphere.  The visible emissions check shall verify the presence of any visible emissions and need not follow the procedures specified in USEPA Method 9. Therefore, multiple stacks may be observed simultaneously.  The date, time, name of visible emissions observer, and whether any visible emissions were observed shall be recorded.  If any visible emissions are observed, the permittee shall immediately implement one of the following procedures:  **(R 336.1213(3), R 336.1301)**
	1. If any visible emissions have been observed during the non-certified visible emission check, the permittee shall perform and record the results of a 6-minute USEPA Method 9 visible emissions observation conducted for a minimum of 15 minutes to determine the opacity from that emission point.  If the results of the Method 9 visible emissions observation indicate an exceedance of the 20% opacity standard, the permittee shall promptly initiate corrective actions and document the correction actions taken.
	2. The permittee shall initiate corrective actions and document the correction actions taken based upon the initial non-certified visible emissions check that indicated the presence of any visible emissions.
4. The permittee shall record the date, time, and duration that EULIMEKILN was vented to the atmosphere.
**(R 336.1213(3))**
5. Records of the non-certified visible emission checks, Method 9 observations, and corrective actions that were taken shall be kept on file. **(R 336.1213(3))**

**See Appendix 7**

**VII. REPORTING**

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

2. Semiannual reporting of monitoring and deviations pursuant to Condition 23 of Part A General Conditions. Reports shall be postmarked or received by 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))**

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

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Diameter / Dimensions****(inches)** | **Minimum Height Above Ground****(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SVLIMEKILNEASTSTACK
 | 242 | 1852 | **R 336.1201(3)** |
| 1. SVLIMEKILNWESTSTACK
 | 242 | 1852 | **R 336.1201(3)** |

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

## EUPELLETPRDCTN

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

In the pellet production area, milled pulp is cooled in two pellet coolers. The pellet production area is made up of two pellet coolers (one vertical and one horizontal), conveyors, and storage silo. The two pellet coolers have the capacity to cool up to 850 tons of beet pulp pellets per day. The two pellet coolers are controlled by one cyclone a piece and the material handling area/conveyor area is controlled by a third cyclone. The two Beckert & Hiester, and one unknown brand, cyclones are in parallel and are all connected to the wet scrubber (Emetrol) to control fine particulate.

This emission unit subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM) requirements due to particulate matter emissions.

The most recent PTI for this emission unit is PTI No. 309-86A.

**Flexible Grouping ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Cyclones and Wet Scrubber

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. PM | 0.05 lb/1,000 lbs of exhaust gases, calculated on a dry gas basis2 | Hourly | EUPELLETPRDCTN | SC VI.1, VI.8 | **R 336.1331(c)** |

**II. MATERIAL LIMIT(S)**

NA

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

Permittee may operate the silo basement conveyor wall vent for EUPELLETPRDCTN only when plant personnel are present in the basement conveyor area.2 **(R 336.1201(3))**

1. All vehicles transporting pellets off the plant site shall be covered or otherwise enclosed.2 **(R 336.1201,
R 336.1372(3))**

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

1. The permittee shall not operate EUPELLETPRDCTN unless the cyclones and wet scrubber are installed, maintained, and operated in a satisfactory manner.2 **(R 336. 1910, R 336.1331)**

2. Permittee shall equip and maintain the wet scrubber for EUPELLETPRDCTN with instrumentation to continuously measure the pressure drop across the wet scrubber. Maintenance will include, but not be limited to, maintaining necessary parts for routine repairs of monitoring equipment. The instrumentation and monitoring will be in a manner and with instrumentation acceptable to the Air Quality Division.2 **(R 336.1910, R 336.1331)**

1. Permittee shall equip and maintain the pellet silo unloading elevator with an extendable chute to minimize the pellet drop height during truck and rail car loading. The drop height shall not exceed a maximum of six inches above the side of the bed enclosure of the vehicle being loaded.2 **(R 336.1372(2)(b)(ii))**

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall continuously measure pressure drop and record daily as an indicator of proper operation of the scrubber. The indicator range is 2” to 10” water column. **(40 CFR 64.6(c)(1)(i) and (ii))**

2. The permittee shall continuously monitor the presence of the scrubber liquid flow and record the alarm activation during each occurrence as an additional indicator of proper operation of the scrubber. The indicator range is the presence of liquid flow and no alarm. **(40 CFR 64.6(c)(1)(i) and (ii))**

3. Thepressure gauge shall continuously monitor the pressure drop across the scrubber. The averaging period is instantaneous. Once per calendar year during pulp dryer shut-down the zero of each pressure gauge shall be checked. If a pressure gauge fails the zero check, it will be replaced prior to resuming production. **(40 CFR 64.6(c)(1)(iii))**

4. The liquid flow detector shall continuously monitor the presence of liquid flow through the scrubber. The averaging period is instantaneous. The detector and the alarm shall be calibrated annually or according to manufacturer recommendations, whichever is more frequent. **(40 CFR 64.6(c)(1)(iii))**

5. For the differential pressure, an excursion is a departure from the indicator range of 2” to 10” water column.
**(40 CFR 64.6(c)(2))**

6. For the liquid flow indicator, an excursion is the any incidence of liquid flow alarm activation. **(40 CFR 64.6(c)(2))**

1. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of EUPELLETPRDCTN (including the control devices and associated capture system) to its normal or usual manner of operations 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 any excursion or exceedance (other than those caused by excused startup or shutdown conditions). If the flow meter alarm is activated; corrective actions will be undertaken as soon as possible and will include checking the pump and the waterlines for plugging. **(40 CFR 64.7(d))**
2. 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 EUPELLETPRDCTN 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 other periods in assessing the operation of the wet scrubber and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonable preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
3. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment for the wet scrubber. **(40 CFR 64.7(b))**
4. 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))**
5. The permittee shall keep records including the date and extent of any maintenance activities and repairs made to the wet scrubber and cyclones for EUPELLETPRDCTN. These records should be maintained by the permittee and available for review by AQD. **(R336.1213(3))**

**See Appendix 3**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to Special Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to Special Condition 23 of Part A. Reports shall be postmarked or received by 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 Special Conditions 19 and 20 of Part A. Reports shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

1. 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))**
2. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40** **CFR 64.9(a)(2)(ii)**

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Diameter / Dimensions****(inches)** | **Minimum Height Above Ground****(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SVPELLET / STORAGE / HANDLING | 482 | 422 | **R 336.1201(3)** |

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all requirements of 40 CFR Part 64. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document and need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and, if necessary, submit a proposed modification of the CAM Plan to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**

**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).

## EUANAEROBIC DIGESTER

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

The wastewater treatment system includes an anaerobic digesting system ("ANAMET" tank) with a flare. The flare burns gas generated in the anaerobic digesting system.

The most recent PTI for this emission unit is PTI No. 54-86.

**Flexible Grouping ID:** NA

**POLLUTION CONTROL EQUIPMENT**

Flare

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. SO2
 | 20.14 pph2 \* | 24-hour average | EUANAROEBIC DIGESTER | SC VI.1, VI.2 | **R 336.1201(3)****40 CFR 52.21(c) and (d)** |
| 1. SO2
 | 36.16 tpy2 | 12-month rolling time period | EUANAROEBIC DIGESTER | SC VI.1, VI.2 | **R 336.1201(3)****40 CFR 52.21(c) and (d)** |

\* This is equivalent to a mass flow rate of H2S to the flare of 10.70 pounds per hour.

**II. MATERIAL LIMIT(S)**

NA

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

1. Permittee shall operate and maintain in a satisfactory manner the spark-ignited flare pilot at the anamet system. In the event the pilot on the flare fails to ignite, the flow of biogas to the flare shall stop immediately consistent with safe operating practice. The flow of biogas to the flare shall not be restarted unless the spark-ignited flare pilot is back online and operating properly.2 **(R 336.1910)**

2. Except during a malfunction of the wastewater treatment system, the permittee shall maintain no detectable emission from the pressure-relief device on the process.2 **(R 336.1201(3), R 336.1901)**

**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. Permittee shall monitor and record, on a daily basis, in a manner and with instrumentation acceptable to the Air Quality Division, the mass flow rate of hydrogen sulfide gas going to the flare. The permittee shall keep all data used to determine the mass flow rate of hydrogen sulfide to the flare.2 **(R 336.1201(3))**

2. Permittee shall keep a record of each pressure release and each pressure-relief device inspection on the process. The record shall include2: **(R 336.1201(3) and R 336.1901)**

a. date and time of beginning and ending of release;

b. reason for the release;

c. date when the pressure-relief device was inspected;

d. and results of inspection.

3. Permittee shall conduct an inspection of the pressure-relief device within two working days following a pressure release, and at least once annually, to determine that there are no detectable emissions. "No detectable emissions" is defined as an instrument reading of less than 500 ppm above background as determined by EPA Reference method 21, or equivalent.2 **(R 336.1201(3) and R 336.1901)**

**VII. REPORTING**

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

2. Semiannual reporting of monitoring and deviations pursuant to Special Condition 23 of Part A. Reports shall be postmarked or received by 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 Special Conditions 19 and 20 of Part A. Reports shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. Permittee shall submit data indicating the mass flow rate of hydrogen sulfide going to the flare. This data shall be submitted to the District Supervisor in an acceptable format within 30 days following the end of the month in which the data was collected.2 **(R 336.1201(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 Diameter / Dimensions****(inches)** | **Minimum Height Above Ground****(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SVANAEROBIC DIGESTER (digester flare ) | 4.02 | 20.02 | **R 336.1201(3)40 CFR 52.21(c) and (d)** |

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

## EUCOOLINGTOWER

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

The counter current flow cooling tower is used to cool water from the barometric condensing operation. Ammonia associated with EUCOOLINGTOWER was extracted along with sugar during processing and is present in the condensate waters being cooled prior to reuse or discharge. Ammonia emissions are the result of rising air through the cooling tower stripping the ammonia from the condensate water.

The most recent PTI for this emission unit is PTI No. 265-00.

**Flexible Grouping ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

| **Material** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Ammonia (NH3)
 | 920.0 pph1 | 24-hour average | EUCOOLINGTOWER | SC VI.1 | **R 336.1224R 336.1225** |

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

NA

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

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

* 1. To demonstrate compliance with the amount of ammonia entering EU-COOLINGTOWER, Applicant shall monitor and record the following parameters three times per week. These parameters refer to the water entering
	EU-COOLINGTOWER:
1. Water pump discharge pressure;
2. Concentration of ammonia in the water.

The volumetric flow rate of water entering EU-COOLINGTOWER can be determined from pump curves using the pump’s discharge pressure.1 **(R 336.1224, R 336.1225)**

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to Special Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to Special Condition 23 of Part A. Reports shall be postmarked or received by 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 Special Conditions 19 and 20 of Part A. Reports shall be postmarked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c)**

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Diameter / Dimensions****(inches)** | **Minimum Height Above Ground****(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SVCOOLINGTOWER | 19.01 | 36.01 | **R 336.1901, R 336.1201(3)** |

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

# D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

## FLEXIBLE GROUP SUMMARY TABLE

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

| **Flexible Group ID** | **Flexible Group Description** | **Associated****Emission Unit IDs** |
| --- | --- | --- |
| FGBOILERS | Two 180 million BTUs per hour heat input, natural gas fired boilers that supply process steam and heat to the facility. Both boilers have low NOx burners and flue gas recirculation and oxygen trim.The most recent PTI for this Flexible Group is PTI No. 1295-91B. | EUBOILER#6EUBOILER#7 |
| FGRULE290 | Existing and future processes exempt per R 336.1290. | **Emission Units installed prior to December 20, 2016:** EUMOLASSESDESUG, OMI system |

## FGBOILERS

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Two 180 million BTUs per hour heat input, natural gas fired boilers that supply process steam and heat to the facility. Both boilers have low NOx burners and flue gas recirculation and oxygen trim.

The most recent PTI for this Flexible Group is PTI No. 1295-91B.

**Emission Units:** EUBOILER#6 and EUBOILER#7

**POLLUTION CONTROL EQUIPMENT**

Low NOx Burner

Flue Gas Recirculation

**I. EMISSION LIMIT(S)**

| **Pollutant** | **Limit** | **Time Period/Operating Scenario** | **Equipment** | **Monitoring/****Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NO2
 | 0.2 lb/MMBtu | 30-day rolling average as determined each day the boiler operates | EUBOILER#6 EUBOILER#7 | SC VI.1, VI.2, VI.3 | **40 CFR 60.44b** |
| 1. NOx
 | 0.155 lb/MMBTU2 a | 24 hour average | EUBOILER#6 EUBOILER#7 | SC VI.2, VI.3, VI.7 | **R 336.1205** |
| 1. NOx
 | 27.9 pph2 a | Hourlyb | EUBOILER#6 EUBOILER#7 | SC VI 1, VI 2, VI.3 | **R 336.1205****40 CFR 52.21(c) and (d)** |
| 1. NOx
 | 61.1 tpy2 | 12-month rolling time period | EUBOILER#6 EUBOILER#7 | SC VI 1, VI 2, VI.3  | **R 336.1205**  |
| 1. CO
 | 0.22 lb/MMBTU2 a | 8 hour average | EUBOILER#6 EUBOILER#7 | SC V.1, VI.3, VI.7 | **R 336.1205** |
| 1. CO
 | 39.6 pph2 a | Hourlyb | EUBOILER#6 EUBOILER#7 | SC V.1 | **R 336.1205** |
| 1. CO
 | 86.7 tpy2 | 12-month rolling time period | EUBOILER#6 EUBOILER#7 | SC VI 3, VI.8 | **R 336.1205** |

a All limits include startup, shutdown, and malfunction conditions.

b If a stack test is used to demonstrate compliance with this emission limit, the hourly emission rate during testing shall be determined by the average of the qualified test runs performed in accordance with the method requirements

**II. MATERIAL LIMIT(S)**

The permittee shall only burn pipeline quality natural gas in FGBOILERS. **(R 336.1213(2))**

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

1. The ratio of actual heat input for 12 consecutive calendar months to the maximum potential heat input based on an operation of 8,760 hours shall not exceed 0.50 for FGBOILERS.2 **(R 336.1201(3))**
2. The following formula shall be used to determine the ratio of heat input for each Boiler 6 and 7:

R = A / B

where:

A = The total heat input in BTUs from firing natural gas for the preceding twelve consecutive calendar months,

B = 1,576,800,000,000 which is the maximum potential heat input in BTUs based on an operation of 8,760 hours for each Boiler 6 and 7, and

R = The ratio of actual heat input for the preceding twelve consecutive calendar months to the maximum potential heat input based on 8,760 hours.

Applicant shall calculate a new R for each Boiler 6 and 7 on the first day of each calendar month. Applicant shall monitor and record the amount of natural gas combusted in each Boiler 6 and 7 during each day on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All such records including the ratio calculation (R) shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

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

1. The permittee shall not operate an individual boiler in FGBOILERS unless the low NOx burners and flue gas recirculation system for that boiler are installed, maintained, and operated in a satisfactory manner.2 **(R 336.1910)**

**V. TESTING/SAMPLING**

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

1. The permittee shall verify Carbon Monoxide emission rates from FGBOILERS 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 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.  **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the Carbon Monoxide emission rate from FGBOILERS within 24 months after issuance of ROP-MI-B1493-2021, and at a minimum, every five years from the date of the last test thereafter. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall 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. **(R 336.1213(3))**

1. The permittee shall monitor and record the emissions of nitrogen oxides from Boilers 6 and 7 on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All monitoring data and related information shall be submitted to the District Supervisor, Air Quality Division, in an acceptable format within 30 days following the end of the quarter in which the data were collected.2 **(R 336.1201(3))**
2. The permittee shall monitor and record the oxygen from Boilers 6 and 7 on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division.2 **(R 336.1201(3))**
3. Monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Db. All source emissions data and operating data shall be kept on file and made available to the Air Quality Division upon request.2 **(R 336.1201(3))**
4. The permittee shall keep, in a satisfactory manner, 24-hour average, based on a calendar day, NOx emission records for each boiler included in FGBOILERS. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**
5. The permittee shall keep, in a satisfactory manner, 8-hour average, monthly, and 12-month rolling time period CO emission records for each boiler included in FGBOILERS. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**

7. The permittee shall monitor and record the amount of natural gas utilized as well as the ratio of actual heat input for 12 consecutive calendar months using instrumentation acceptable to the District Supervisor of the Air Quality Division. Natural gas usage shall be recorded on a log and kept on file for FGBOILERS.1  **(R 336.1213(3))**

8. The Continuous Emission Monitoring System (CEMS) for NOx and O2 shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and Performance Specifications (PS) 2 and 3 of Appendix B, 40 CFR Part 60 in Appendix 5.**(R 336.1213(3), 40 CFR 60.48b(b) and (e)(2))**

1. The permittee shall keep, in a satisfactory manner, records of the occurrence and duration of each start-up, shutdown, or malfunction of a continuous monitoring system or monitoring device is inoperative. **(40 CFR 60.7)**
2. The permittee shall maintain records 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:
3. Compliance tests and any testing required under the special conditions of this permit;
4. Monitoring data;
5. Verification of heat input capacity required to show compliance with SC III.1, I.1, and I.4;
6. Identification, type, and amounts of fuel combusted in FGBOILERS on a calendar month basis;
7. Records of the duration of all times FGBOILERS is operated under start-up or shutdown conditions;
8. All records required by 40 CFR 60.7 and 60.49b;
9. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1213(3))**

**See Appendix 7**

**VII. REPORTING**

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

1. Semiannual reporting of monitoring and deviations pursuant to Special Condition 23 of Part A. Each semiannual report of monitoring deviations shall include summary information on number, duration, and cause of excursions and/or exceedances, and the corrective actions taken. If there were no exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances**.**  Reports shall be postmarked or received by 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), 40 CFR Part 60.7(c)
and (d))**
2. Annual certification of compliance pursuant to Special Conditions 19 and 20 of Part A. Reports shall be post marked or received by appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
3. All source emissions data and operating data required to comply with the Federal Standards of performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Db shall be submitted to the District Supervisor, Air Quality Division, in an acceptable format within 30 days following the end of the quarter in which the data was collected.2 **(R 336.1250, 40 CFR Part 60, Subparts A and Db)**
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding PS in Appendix B, 40 CFR Part 60.2 **(R 336.2150, 40 CFR Part 60, Appendix B)**
5. Within 30 days following the end of each calendar quarter, the permittee shall submit the results of the CEMS testing conducted to meet Quality Assurance Procedures for the CEMS to the AQD District Supervisor in the format of the data assessment report (Figure 1, Appendix F). 2  **(40 CFR Part 60, Appendix F)**

7. 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:2  **(40 CFR 60.7(c) and (d))**

a. A report of each exceedance above the limits specified in the conditions of this permit. This includes date, time, magnitude, cause, and corrective actions of all occurrences during the reporting period;

b. A report of all periods of CEMS downtime and corrective action;

c. A report of the total operating time of each boiler during the reporting period;

d. A report of any periods that the CEMS exceeds the instrument range;

e. If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

**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. SVBOILER#6
 | 722 | 502 | **R 336.1201(3)** |
| 1. SVBOILER#7
 | 722 | 502 | **R 336.1201(3)** |

**IX. OTHER REQUIREMENT(S)**

NA

**Footnotes:**

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

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

## FGRULE290

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a, and Rule 290. Emission units installed/modified before December 20, 2016 may show compliance with Rule 290 in effect at the time of installation/modification.

**Emission Units installed on or after December 20, 2016:** NA

**Emission Units installed prior to December 20, 2016:** EUMOLASSESDESUG - Process and associated equipment used to remove sugar from molasses through chromatographic separation.

OMI System - Odor Neutralization system installed around Aeration ponds and flume mud ponds

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

1. Each emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, if the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively. **(R 336.1290(2)(a)(i))**

2. Any emission unit for which CO2 equivalent emissions are not more than 6,250 tons per month and for which the total uncontrolled or controlled emissions of all other air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all the following criteria listed below are met: **(R 336.1290(2)(a)(ii))**

a. For toxic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively; **(R 336.1290(2)(a)(ii)(A))**

b. For toxic air contaminants with initial risk screening levels greater than or equal to 0.04 microgram per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively; **(R 336.1290(2)(a)(ii)(B))**

c. The emission unit shall not emit any toxic air contaminants, excluding non-carcinogenic volatile organic compounds and noncarcinogenic materials which are listed in Rule 122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 microgram per cubic meter; **(R 336.1290(2)(a)(ii)(C))**

1. For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month from emission units installed on or after December 20, 2016; **(R 336.1290(2)(a)(ii)(D))**
2. For lead, the uncontrolled or controlled emissions shall not exceed 16.7 pounds per month from emission units installed on or after December 20, 2016. **(R 336.1290(2)(a)(ii)(E))**

3. Any emission unit that emits only particulate air contaminants without initial risk screening levels and other air contaminants that are exempted under Rule 290(2)(a)(i) or Rule 290(2)(a)(ii), if all the following provisions are met: **(R 336.1290(2)(a)(iii))**

a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have exhaust gas flow rate more than 30,000 actual cubic feet per minute; **(R 336.1290(2)(a)(iii)(A))**

b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303; **(R 336.1290(2)(a)(iii)(B))**

c. The initial threshold screening level for each particulate toxic air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter; **(R 336.1290(2)(a)(iii)(C))**

**II. MATERIAL LIMIT(S)**

NA

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

1. The provisions of Rule 290 apply to each emission unit that is operating pursuant to Rule 290. **(R 336.1290)**
2. The following requirements apply to emission units installed on or after December 20, 2016, utilizing control equipment:
	1. An air cleaning device for volatile organic compounds shall be installed, maintained, and operated in accordance with the manufacturer’s specifications. Examples include the following: **(R 336.1290(2)(b)(i),**

**R 336.1910)**

* + 1. Oxidizers and condensers equipped with a continuously displayed temperature indication device;
		2. Wet scrubbers equipped with a liquid flow rate monitor;
		3. Dual stage carbon absorption where the first canister is monitored for breakthrough and replaced if breakthrough is detected.
	1. An air cleaning device for particulate matter shall be installed, maintained, and operated in accordance with the manufacturer’s specifications or the permittee shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions. It shall also be equipped to monitor appropriate indicators of performance, for example, static pressure drop, water pressure, and water flow rate. **(R 336.1290(2)(b)(ii), R 336.1910)**

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

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor: **(R 336.1213(3))**

a. Records identifying each air contaminant that is emitted; **(R 336.1213(3))**

b. Records identifying if each air contaminant is controlled or uncontrolled; **(R 336.1213(3))**

c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic; **(R 336.1213(3))**

d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii); **(R 336.1213(3))**

1. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in enough detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. Volatile organic compound emissions from units installed on or after December 20, 2016 shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the AQD District Supervisor; **(R 336.1213(3), R 336.1290(2)(d))**
2. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. **(R 336.1213(3), R 336.1290(2)(e))**

2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information: **(R 336.1213(3))**

a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit; **(R 336.1290(2)(c), R 336.1213(3))**

b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. **(R 336.1213(3))**

3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. **(R 336.1213(3))**

**VII. REPORTING**

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

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

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

**See Appendix 8**

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

NA

**IX. OTHER REQUIREMENT(S)**

NA

# E. NON-APPLICABLE REQUIREMENTS

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

|  |
| --- |
| **APPENDICES** |

## Appendix 1. Acronyms and Abbreviations

|  |  |
| --- | --- |
| **Common Acronyms** | **Pollutant / Measurement Abbreviations** |
| AQD | Air Quality Division | acfm | Actual cubic feet per minute |
| BACT | Best Available Control Technology | BTU | British Thermal Unit |
| CAA | Clean Air Act | °C | Degrees Celsius |
| CAM | Compliance Assurance Monitoring | CO | Carbon Monoxide |
| CEM | Continuous Emission Monitoring | CO2e | Carbon Dioxide Equivalent |
| CEMS | Continuous Emission Monitoring System | dscf | Dry standard cubic foot |
| CFR | Code of Federal Regulations | dscm | Dry standard cubic meter |
| COM | Continuous Opacity Monitoring | °F | Degrees Fahrenheit |
| Department/department | Michigan Department of Environment, Great Lakes, and Energy | Gr | Grains |
| HAP | Hazardous Air Pollutant |
| EGLE | Michigan Department of Environment, Great Lakes, and Energy | Hg | Mercury |
| Hr | Hour |
| EU | Emission Unit | HP | Horsepower |
| FG | Flexible Group | H2S | Hydrogen Sulfide |
| GACS | Gallons of Applied Coating Solids | kW | Kilowatt |
| GC | General Condition | Lb | Pound |
| GHGs | Greenhouse Gases | M | Meter |
| HVLP | High Volume Low Pressure\* | Mg | Milligram |
| ID | Identification  | Mm | Millimeter |
| IRSL | Initial Risk Screening Level | MM | Million |
| ITSL | Initial Threshold Screening Level | MW | Megawatts |
| LAER | Lowest Achievable Emission Rate | NMOC | Non-methane Organic Compounds |
| MACT | Maximum Achievable Control Technology | NOx | Oxides of Nitrogen |
| MAERS | Michigan Air Emissions Reporting System | Ng | Nanogram |
| MAP | Malfunction Abatement Plan | PM | Particulate Matter |
| MSDS | Material Safety Data Sheet | PM10 | Particulate Matter equal to or less than 10 microns in diameter |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards | PM2.5 | Particulate Matter equal to or less than 2.5microns in diameter |
| NESHAP | National Emission Standard for Hazardous Air Pollutants | Pph | Pounds per hour |
| ppm | Parts per million |
| NSPS | New Source Performance Standards | ppmv | Parts per million by volume |
| NSR | New Source Review | ppmw | Parts per million by weight |
| PS | Performance Specification | % | Percent |
| PSD | Prevention of Significant Deterioration | psia | Pounds per square inch absolute |
| PTE | Permanent Total Enclosure | psig | Pounds per square inch gauge |
| PTI | Permit to Install | Scf | Standard cubic feet |
| RACT | Reasonable Available Control Technology | Sec | Seconds |
| ROP | Renewable Operating Permit | SO2 | Sulfur Dioxide |
| SC | Special Condition | TAC | Toxic Air Contaminant |
| SCR | Selective Catalytic Reduction | Temp | Temperature |
| SNCR | Selective Non-Catalytic Reduction | THC | Total Hydrocarbons |
| SRN | State Registration Number | Tpy | Tons per year |
| TEQ | Toxicity Equivalence Quotient | µg | Microgram |
| USEPA/EPA | United States Environmental Protection Agency | µm | Micrometer or Micron |
| VOC | Volatile Organic Compounds |
| VE | Visible Emissions | Yr | Year |

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

## Appendix 2. Schedule of Compliance

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

## Appendix 3. Monitoring Requirements

With the exception of monitoring requirements for EUPELLETPRDCTN, which is subject to CAM, specific monitoring requirement procedures, methods, or specifications are detailed in Part A or the appropriate source-wide, emission unit and/or flexible group special conditions.

A revised CAM Plan for EUPELLETPRDCTN was submitted as part of the June 25, 2020 ROP Renewal Application by the company.

## Appendix 4. Recordkeeping

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

## Appendix 5. Testing Procedures

**A. Coke Testing Procedures for EULIMEKILN**

Coke is used as a fuel supply to the lime kiln at the Michigan Sugar Company facility in Bay City, Michigan. The purpose of sampling is to determine the concentration of sulfur in the fuel in units of pounds per million BTU of representative composite samples. Sample collection shall be in the manner specified in ASTM 2234-76 or in accordance with a sample collection plan for representative coke samples to be submitted to the AQD District Supervisor and approved prior to sample collection.

In order to determine the sulfur content of the representative sample(s), a determination of the heat content, moisture content, and sulfur content of the fuel must be conducted by an appropriately certified/licensed facility. The referenced variables may be determined by the following ASTMs or equivalent:

* Heat Content of the Fuel: D5865-04
* Moisture Contents of Fuel: ASTM D3173-03 or ASTM E871-82 (1998)
* Sulfur Concentration in Sample: ASTM D2492-90(1998) or ASTM D3177-89(2002)

Please note that concentrations obtained need to be converted into units of pounds of sulfur per MMBTU of heat content.

**B. Continuous Emission Monitoring System (CEMS) Requirements**

**For existing CEMS at EUBOILER8 and FGBOILERS: The permittee has satisfied the installation and testing requirements, therefore items 1 - 4 have been completed and do not apply.**

1. Within 30 calendar days after commencement of initial start-up, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS.

2. Within 150 calendar days after commencement of initial start-up, the permittee shall submit two copies of a complete test plan for the CEMS to the AQD for approval.

3. Within 180 calendar days after commencement of initial start-up, the permittee shall complete the installation and testing of the CEMS.

1. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

| **Pollutant** | **Applicable PS\*** |
| --- | --- |
| NOx | 2 |
| CO2/O2 | 3 |
| \*Or other PS as approved by the AQD. |

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2, 3, 4, and 6 (see No. 4 above) of Appendix B to 40 CFR Part 60 or 40 CFR Part 75, Appendices A and B, as applicable.

1. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60 or 40 CFR Part 75, Appendix B. 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 of 40 CFR Part 60).

8. 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 the limits specified in the Emission Limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period;

b. A report of all periods of CEMS downtime and corrective action;

c. A report of the total operating time of each emission unit during the reporting period;

d. A report of any periods that the CEMS exceeds the instrument range;

e. If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

9. The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.

## 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-B1493-2016. 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-B1493-2016 is being reissued as Source-Wide PTI No. MI-PTI-B1493-2021.

|  |  |  |  |
| --- | --- | --- | --- |
| **Permit to Install Number** | **ROP Revision****Application Number** | **Description of Equipment or Change** | **Corresponding Emission Unit(s) or****Flexible Group(s)** |
| NA |  |  |  |

## Appendix 7. Emission Calculations

**Formulas for EULIMEKILN**

SO2 Emissions for EULIMEKILN for compliance purposes will be calculated per formulas proposed in the
December 21, 2015, Lime Kiln Emissions Calculations. The referenced methodology was approved by District Staff on December 22, 2015, and is consistent with methods used to determine the 2014 MAERS emissions. A copy may be found in District Files.

Note: At the time of initial permitting, the scrubber (aka gas washer) was identified as a particulate control and was one of two evaluated for that purpose. More recently the company has indicated that the unit acts more as a gas conditioner, cooling the gas prior to it entering the carbonation units and is not a pollution control device. During the campaign, the majority of the gas produced is used in the carbonation tanks, with any unused gas passing through the pressure header and out SVLIMEKILNPRESSRELF. In this case, PM has been minimized in the emissions. Should produce gases be exhausted out of the two lime kiln stacks (SVLIMEKILNEASTSTACK and SVLIMEKILNWESTSTACK), they reflect uncontrolled emissions. The calculations proposed and approved reflect emissions with respect to the larger process and reflect the consumption of gases through the carbonization process.

## Appendix 8. Reporting

**A. Annual, Semiannual, and Deviation Certification Reporting**

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

**B. Other Reporting**

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

## Appendix 9. Fugitive Dust Plan

Michigan Sugar Company Fugitive Dust Control Program effective December 2008 and revised March 2012 and March 2020, and approved September 2020 is on file at the District Office.