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

EFFECTIVE DATE: July 19, 2021

ISSUED TO

DTE Gas Company Belle River Mills Compressor Station

State Registration Number (SRN): B6478

LOCATED AT

5440 Puttygut Road, China, Saint Clair County, Michigan 48054

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-B6478-2021

Expiration Date: July 19, 2026

Administratively Complete ROP Renewal Application Due Between January 19, 2025 and January 19, 2026

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-B6478-2021

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

Michigan Department of Environment, Great Lakes, and Energy

TABLE OF CONTENTS

| AUTHORITY AND ENFORCEABILITY | 4 |
|--|----|
| A. GENERAL CONDITIONS | 5 |
| Permit Enforceability | 5 |
| General Provisions. | |
| Equipment & Design | |
| Emission Limits | |
| Testing/Sampling | |
| Monitoring/Recordkeeping | |
| Certification & Reporting | |
| Permit Shield | |
| Revisions | 9 |
| Reopenings | 9 |
| Renewals | |
| Stratospheric Ozone Protection | 10 |
| Risk Management Plan | 10 |
| Emission Trading | |
| Permit to Install (PTI) | 11 |
| B. SOURCE-WIDE CONDITIONS | 12 |
| | |
| C. EMISSION UNIT SPECIAL CONDITIONS | |
| EMISSION UNIT SUMMARY TABLE | |
| EUOFFICEGENSET | 17 |
| EUDEHY | |
| EUREFRIGPLANT | |
| EUREGEN | |
| EUKingRdHCTank | 31 |
| D. FLEXIBLE GROUP SPECIAL CONDITIONS | 33 |
| FLEXIBLE GROUP SUMMARY TABLE | 33 |
| FG-COLD CLEANERS | |
| FGCOMBUSTION | |
| FGEMERGENS | |
| FGENGINES | |
| FGENGINESR1-2 | |
| FGRULE 285(2)(mm) | |
| FGRULE 290 | |
| FGRULE818ENGINES | 55 |
| FGTURBINES | |
| FGBOILERSGAS1 | 64 |
| FGBOILERSSMALL | 68 |
| E. NON-APPLICABLE REQUIREMENTS | 71 |
| ADDENDICES | |
| APPENDICES | |
| Appendix 1. Acronyms and Abbreviations | |
| Appendix 2. Schedule of Compliance | 73 |
| Appendix 3. Monitoring Requirements | 73 |

| Appendix 4. | Recordkeeping | 73 |
|-------------|-----------------------|----|
| | Testing Procedures | |
| | Permits to Install | |
| | Emission Calculations | |
| | Reporting | |

AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

- 7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(g))
- 8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. (R 336.1213(3)(b))

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

Certification & Reporting

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

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**

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

Permit Shield

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

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

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

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

Revisions

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

Reopenings

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

Renewals

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

Stratospheric Ozone Protection

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

Risk Management Plan

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

Emission Trading

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

Permit to Install (PTI)

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

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

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT 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 |
|------------------|---|---|-------------------------------|
| EU014 | GMVC compressor engine no. 1; 1,000 HP 2-cycle natural gas-fired reciprocating internal combustion engine (RICE) used to power a natural-gas pipeline compressor. | 06-01-1964 | FGENGINES |
| EU015 | GMVC compressor engine no. 2; 2,000 HP 2-cycle natural gas-fired reciprocating internal combustion engine (RICE) used to power a natural-gas pipeline compressor. | 06-01-1964 | FGENGINES |
| EU016 | GMVC compressor engine no. 3; 2,000 HP 2-cycle natural gas-fired reciprocating internal combustion engine (RICE) used to power a natural-gas pipeline compressor. | 06-01-1964 | FGENGINES |
| EU017 | Cooper model Z330 compressor engine no. 4; 10,000 HP natural gas-fired 2-cycle leanburn reciprocating internal combustion engine (RICE) utilized to compress natural gas. This emission unit is subject to the requirements of R 336.1818 (Rule 818). Compliance requirements per Rule 818 originate in PTI 165-07. | Installed 06-01-1972 Modified 01-06-2008 | FGENGINES FGRULE818ENGINES |
| EU018 | Cooper model Z330 compressor engine no. 5; 10,000 HP natural gas-fired 2-cycle leanburn reciprocating internal combustion engine (RICE) utilized to compress natural gas. This emission unit is subject to the requirements of R 336.1818 (Rule 818). Compliance requirements per Rule 818 originate in PTI 165-07. | Installed 06-01-1972 Modified 05-01-2009 | FGENGINES FGRULE818ENGINES |
| EUBUGENSETTURBIN | 1,818 HP (1,356 kW) 4-cycle lean-burn Caterpillar model G3516B natural gas-fired emergency generator that is located in the turbine annex building (Building 8). This emission unit powers the turbine building and appropriate ancillary equipment. | 09-01-2006 | FGEMERGENS |
| EUCOLDCLEANER | Cold cleaner with a surface area of 10 square feet or less. This emission unit is located in the vehicle service garage. | 09-01-1980 | FGCOLDCLEANERS |

| Emission Unit ID | Emission Unit Description | Installation | Flexible Group ID |
|------------------|--|-------------------------------|--------------------------------|
| | (Including Process Equipment & Control Device(s)) | Date/ Modification Date | |
| EUDEHY | Natural gas dehydration equipment located in the DEHY Building. Large existing glycol dehydration unit with a thermal oxidizer (enclosed flare). Subject to 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. Installation approved per PTI 206-01. | 01-01-2003 | NA |
| EUEMERGENZBLDG | 1,818 HP (1,356 kW) 4-cycle lean-burn Caterpillar Model G3516B natural gas-fired emergency generator that is located in the generator building, east of the Z-engine building. This emission unit powers Plant 2, the Z330 building, and associated ancillary equipment. | 07-01-2007 | FGEMERGENS |
| EUOFFICEGNESET | 75 HP natural gas-fired emergency generator certified by the manufacturer to meet emission standards under 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ to supply power to the offices in the control building during power outages. | 03-01-2016 | NA |
| EUENGINER1 | 1,480 HP natural gas-fired 4-cycle lean-burn reciprocating internal combustion engine (RICE), with catalyst oxidation system operating at a minimum of 93% efficiency on CO oxidation. This engine is located in the refrigeration plant and is used to drive a propane refrigerant compressor. Installation approved per PTI 155-06D and PTI 32-15. | 10-27-2008 | FGCOMBUSTION FGENGINESR1-2 |
| EUENGINER2 | 1,480 HP natural gas-fired 4-cycle lean-burn reciprocating internal combustion engine (RICE), with catalyst oxidation system operating at a minimum of 93% efficiency on CO oxidation. This engine is located in the refrigeration plant and is used to drive a propane refrigerant compressor. Installation approved per PTI 155-06D and PTI 32-15. | 10-27-2008 | FGCOMBUSTION FGENGINESR1-2 |
| EUHMOHEATER | 7.5 MMBTU/hr. hot medium oil heater. Installation approved per PTI 155-06D and PTI 32-15. | 10-27-2008 | FGCOMBUSTION FGBOILERSSMALL |
| EULSTANK1-4 | Four 30,000 gallon hydrocarbon liquid storage tanks that are vented to the EUREGEN thermal oxidizer for emissions control. Installation approved per PTI 155-06D and PTI 32-15. | 10-27-2009 | FGCOMBUSTION |
| EUREFRIGPLANT | Propane refrigeration plant including storage tank, flanges and valves. Installation approved per PTI 155-06D and PTI 32-15. | 10-28-2008 | FGCOMBUSTION |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date/ Modification Date | Flexible Group ID |
|------------------|---|--------------------------------------|----------------------------|
| EUREGEN | Natural gas-fired ethylene glycol regenerator with thermal oxidation controls and a heat exchanger used in glycol regeneration. This emission unit is located in the Refrigeration Plant. Installation approved per PTI 155-06D and PTI 32-15. | 10-27-2008 | FGCOMBUSTION |
| EURULE285mm | Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 285(2)(mm). | NA | FGRULE285(2)mm |
| EUK5TANK | One 10,000 gallon horizontal tank used to receive and store liquids that result from scrubbing pipeline natural gas just prior to compression and hydrocarbon liquids generated by pigging of the pipelines and hydrocarbon liquids from the equipment filter separators. | 10-27-2009 | FGRULE290 |
| EUTURBINE1 | 15,900 HP natural gas-fired turbine engine model Mars 100 driving a centrifugal natural gas compressor. Installation approved per PTI 155-06D and PTI 32-15. | 01-24-2007 | FGCOMBUSTION FGTURBINES |
| EUKingRdHCTank | Hydrocarbon liquid condensate storage tank located at 3891 King Road, China, Michigan. Installation approved per PTI 141-13. | 08-14-2014 | NA |
| EUREFRIGPLTBLR | 2.0 MMBTU/hr. boiler for heating refrigeration plant building. | 01-01-2007 | FGBOILERSSMALL |
| EUZBLDGBLR | 2.10 MMBTU/hr. boiler for heating Z compressor building. | 01-01-2005 | FGBOILERSSMALL |
| EUAUXBLDGBLR | 0.9 MMBTU/hr. boiler for heating aux building. | 01-01-2006 | FGBOILERSSMALL |
| EUPLT3BLR | 3 MMBTU/hr. boiler for heating Plant 3. | 01-01-2006 | FGBOILERSSMALL |
| EUPLT1BLR | 4.2 MMBTU/hr. boiler for heating tech building. | 01-01-1994 | FGBOILERSSMALL |
| EUTECHBLDGBLR | 0.3 MMBTU/hr. boiler for heating tech building. | 01-01-1966 | FGBOILERSSMALL |
| EUBATHHTR | Bath heater south of refrigeration plant, 0.5 MMBTU/hr. heat input. | 01-01-2007 | FGBOILERSSMALL |
| EUNUGHTR | North Union Gas heater, 5.7 MMBTU/hr heat input | 01-01-2002 | FGBOILERSSMALL |
| EUSUGHTR | South Union Gas heater, 8.58 MMBTU/hr heat input. | 01-01-1973 | FGBOILERSSMALL |
| EUCV1HTR | Water bath heater, 17.9 MMBTU/hr heat input. | 05-23-2019 | FGBOILERSGAS1 |
| EUE36LINEHTR | Line heater on East 36 inch line, 14.3 MMBTU/hr. heat input. | 01-01-1975 | FGBOILERSGAS1 |
| EUW36LINEHTR | Line heater on West 36 inch line, 14.3 MMBTU/hr. heat input. | 01-01-1975 | FGBOILERSGAS1 |
| EU24LINEHTR | Line heater on 24 inch line, 8.55 MMBTU/hr. heat input. | 01-01-1968 | FGBOILERSSMALL |

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date/ Modification Date | Flexible Group ID |
|------------------|---|---|-------------------|
| EUTURBINET70 | 10,915 HP natural gas-fired turbine engine model Taurus 70 driving a centrifugal natural gas compressor. Installation approved per PTI 32-15. | 11-01-2016 | FGTURBINES |
| EUTURBINEC50 | 6,130 HP natural gas-fired turbine engine model Centaur 50 driving a centrifugal natural gas compressor. Installation approved per PTI 32-15. | 11-01-2016 | FGTURBINES |

EUOFFICEGENSET EMISSION UNIT CONDITIONS

DESCRIPTION

75 HP natural gas-fired emergency generator certified by the manufacturer to meet emission standards under 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ to supply power to the offices in the control building during power outages.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| | Pollutant | Limit | Time Period/Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|----|-----------|-------------|-----------------------------------|----------------|-------------------------------|---|
| 1. | NOxª | 10 g/hp-hr | Per horsepower hour, per engine | EUOFFICEGENSET | SC VI.5 | 40 CFR 60.4233(d) and 40 CFR Part 60, Subpart JJJJ, Table 1 |
| 2. | СО | 387 g/hp-hr | Per horsepower hour, per engine | EUOFFICEGENSET | SC VI.5 | 40 CFR 60.4233(d) and 40 CFR Part 60, Subpart JJJJ, Table 1 |

^aThe emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOX + HC.

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. There is no limit on the use of the engine in emergency situations. (40 CFR 60.4243(d))
- 2. The permittee may operate EUOFFICEGENSET for no more than 100 hours per calendar year for the purposes of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the permittee maintains records indicating that Federal, state or local standards require maintenance and testing of the emergency internal combustion engine beyond 100 hours per calendar year. (40 CFR 60.4243(d)(2))
- 3. The permittee may operate EUOFFICEGENSET up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per year provided for maintenance and readiness testing in SC III.2. (40 CFR 60.4243(d)(3))
- 4. If the permittee does not operate EUOFFICEGENSET according to the requirements in paragraphs 40 CFR 60.4243(d)(1) through (3) (SC III.2 and III.3), the engine will not be considered an emergency engine under 40 CFR Part 60, Subpart JJJJ, and must meet all requirements for non-emergency engines. (40 CFR 60.4243(d))

- 5. If EUOFFICEGENSET is operated in a certified manner, according to procedures specified in 40 CFR Part 60, Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUOFFICEGENSET:
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions:
 - b. Meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as applicable, including labeling and maintaining certified engines according to the manufacturer's recommendations; and
 - c. Only change engine settings according to and consistent with the manufacturer's instructions.

If the permittee does not operate and maintain the certified engine according to the manufacturer's emission-related written instructions, EUOFFICEGENSET will be considered to be operating as a non-certified engine and be subject to SC III.6. (40 CFR 60.4243(a)(1) & (b)(1))

- 6. If EUOFFICEGENSET is not operated and maintained in a certified manner as specified by 40 CFR Part 60, Subpart JJJJ, the permittee shall keep a maintenance plan for EUOFFICEGENSET and records of conducted maintenance and shall, to the extent practicable, maintain and operate EUOFFICEGENSET in a manner consistent with good air pollutant control practice for minimizing emissions. (40 CFR 60.4243(b)(1), 40 CFR 60.4243(a)(2)(i))
- 7. The permittee shall operate and maintain EUOFFICEGENSET such that it meets the emission limit in SC I.1 and SC I.2 over the entire life of the engine. **(40 CFR 60.4234)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain EUOFFICEGENSET with a non-resettable hour meter to track the operating hours. (40 CFR 60.4237(c))

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any notification. (40 CFR 60.4245(a)(1))
- 2. The permittee shall maintain records of all maintenance conducted on the engine. (40 CFR 60.4245(a)(2))
- 3. If EUOFFICEGENSET is operated in a certified manner, the permittee shall keep documentation from the manufacturer that the EUOFFICEGENSET is certified to meet the emission standards in SC I.1 and I.2 and the information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))
- 4. If EUOFFICEGENSET is operated in a non-certified manner, the permittee shall keep a maintenance plan as required in 40 CFR 60.4243(a)(2)(i) and documentation that the engine meets the emission limits in SC I. 1 and SC I.2. (40 CFR 60.4243(a)(2)(i), 40 CFR 60.4245(a)(4))
- 5. The permittee shall keep, in a satisfactory manner, records of the manufacturer's emission-related written instructions and records demonstrating that the engine has been maintained according to the manufacturer's emission related written instructions. (40 CFR 60.4243(a))

6. The permittee shall maintain records of the hours of operation of the emergency engine recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as an emergency, and how many hours are spent for nonemergency situations. (40 CFR 60.4245(b))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart JJJJ. (R 336.1213(3), 40 CFR Part 60, Subpart JJJJ)
- 2. The permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart ZZZZ, but will satisfy those requirements by meeting the requirements of 40 CFR Part 60, Subpart JJJJ. (40 CFR 63.6590(c)(6))

EUDEHY EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas dehydration equipment located in the DEHY Building. Large existing glycol dehydration unit with a thermal oxidizer (enclosed flare). Subject to 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. Installation approved per PTI 206-01

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Enclosed flare emission control unit (ECU).

I. <u>EMISSION LIMIT(S)</u>

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|------------|------------------------------------|---|-----------|-------------------------------|--|
| 1. Benzene | 0.43 tons per year ² | 12-month rolling time period as determined at the end of each calendar month. | EUDEHY | SC V.1, SC VI.5 | R 336.1205(3) R 336.1225 40 CFR 63.1275(b)(1)(ii) |
| 2. VOC | 9 tons per year ² | 12-month rolling time period as determined at the end of each calendar month. | EUDEHY | SC V.1, SC VI.5 | R 336.1702(a) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The glycol re-circulation rate of the EUDEHY shall not exceed a maximum of 30 gallons per minute (two 15 gallon per minute pumps running simultaneously).² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a))
- 2. The permittee shall operate and maintain EUDEHY, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.1274(h))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall not process natural gas in the EUDEHY unless the flash tank is installed, maintained, and operating properly. Proper operation requires routing the flash tank exhaust gas to the Emissions Control Unit (ECU) for destruction.² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a))
- 2. The permittee shall not process natural gas in the EUDEHY unless the ECU is installed, maintained, and operating properly. Proper operation of the ECU requires a minimum VOC destruction efficiency of 99% (by

weight), maintaining a minimum temperature of 1400°F and a minimum retention time of 0.5 seconds.² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1910)

- 3. The permittee shall connect each process vent from EUDEHY to a control device through a closed-vent system. The closed vent system shall be designed and operated in accordance with the following requirements: (40 CFR 63.1274(c), 40 CFR 63.1275(b)(1)(ii), 40 CFR 63.1281(c), 40 CFR 63.1283(c)(2)(iii))
 - a. The closed-vent system shall route all gases, vapors, and fumes emitted from the material in and emission unit to a control device that meets the requirements specified in SC IV.4.
 - b. The closed-vent system shall be designed and operated with no detectable emissions.
 - c. For each bypass device in the closed-vent system that could divert all or a portion of the gases, vapors, or fumes from entering the control device, the permittee shall:
 - i At the inlet to the bypass device that could divert the stream away from the control device to the atmosphere, properly install, calibrate, maintain, and operate a flow indicator that is capable of taking periodic readings and sounding an alarm when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere; or
 - ii. Secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or lock-and-key type configuration.
 - d. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of SC IV.3.c.
- 4. The permittee shall connect each process vent to an enclosed combustion device (e.g., thermal vapor incinerator, boiler, or process heater). If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater. Each control device shall be operating at all times when gases, vapors, and fumes are vented from EUDEHY through the closed vent system to the control device. (40 CFR 63.1274(c), 40 CFR 63.1275(b)(1)(ii), 40 CFR 63.1281(d)(1)(i), 40 CFR 63.1281(d)(4))

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 each calendar year the permittee shall obtain by sampling an analysis of the wet gas stream. The sample collection shall occur while EUDEHY is processing gas for distribution. The sample analysis shall include analysis for nitrogen, carbon dioxide, hydrogen sulfide, C1 through C6 series, benzene, toluene, xylene, ethylbenzene, and hexane. Any request for a change in the sampling frequency must be submitted to the AQD District Supervisor for review and approval.² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 63.1284(c)(3))
- 2. The permittee shall determine the actual flow rate of natural gas to EUDEHY using either of the following procedures: (40 CFR 63.1282(a)(1), 40 CFR 63.1284(c)(3))
 - a. Install and operate a monitoring instrument that directly measures natural gas flowrate to EUDEHY with an accuracy of ± 2 percent or better. The annual natural gas flowrate shall be converted to a daily average by dividing the annual flowrate by the number of days per year each EU processed natural gas.
 - b. Document to the AQD's satisfaction, the actual annual average natural gas flowrate to EUDEHY.
- 3. Determination of the actual average benzene emissions from EUDEHY with thermal oxidizer control device shall be made using GRI-GLYCalc[™], Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc[™] Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of each glycol dehydration unit. (40 CFR 63.1282(a)(2)(i))
- 4. The permittee shall perform "no detectable emissions" testing annually for closed vent systems using the test methods and procedures specified in 40 CFR 63.1282(b). (40 CFR 63.1283(c))

VI. MONITORING/RECORDKEEPING

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

 The permittee shall monitor and record the glycol re-circulation rate of the EUDEHY at least once each calendar month in a manner and with instrumentation acceptable to the AQD District Supervisor.² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a))

- 2. The permittee shall install, calibrate annually, maintain and operate in a satisfactory manner a device to monitor the temperature in the ECU on a continuous basis and trigger an alarm if the temperature falls below 1450°F and shut down EUDEHY if the temperature falls below 1400°F.² (R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 63.1283(c))
- 3. At each calibration of the temperature measurement device/system (in accordance with manufacturer's recommendation at least once every twelve calendar months), the device / system shall have an accuracy of ± 2 percent of the temperature being measured expressed in degrees Celsius or ± 2.5 °C, whichever is greater. (R 336.1213(3)
- 4. The permittee shall calculate the VOC and benzene emission rates from the EUDEHY for each calendar month, using a method acceptable to the AQD District Supervisor. If GRI-GLYCalc™ (Version 3.0 or higher) is used to calculate the emission rates, the inputs to the model shall be representative of actual operating conditions of the EUDEHY and shall include the most recent gas analysis data. Any request for a change in the calculation frequency must be submitted to the AQD District Supervisor for review and approval. Records of VOC and benzene emission rates are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request.² (R 336.1201(3), R 336.1205(3), R 336.1225, R 336.1702(a))
- 5. The following records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request.²

| | Record | Applicable Requirements |
|----|---|-------------------------|
| A. | Wet gas composition as determined through analysis of wet | R 336.1201(3) |
| | gas samples as required in Section V. | R 336.1205(3) |
| | | R 336.1225 |
| | | R 336.1702(a) |
| B. | Monthly records of the glycol re-circulation rate of the | R 336.1201(3) |
| | EUDEHY. | R 336.1205(3) |
| | | R 336.1225 |
| | | R 336.1702(a) |
| C. | Monthly records of ECU low temperature alarms and | R 336.1201(3) |
| | shutdowns. | R 336.1205(3) |
| | | R 336.1225 |
| | | R 336.1702(a) |

- The permittee shall calculate and record VOC and benzene emissions for the glycol dehydration system on a monthly and 12-month rolling time period basis in tons and tons per year, respectively. Monthly and 12-month rolling time period records shall be made available to the AQD upon request no later than the last day of the month for the previous calendar month. (R 336.1213(3)(a))
- 7. For each closed-vent system, the permittee shall comply with the following requirements: (40 CFR 63.1283(c)(2 through 4))
 - a. Except for parts of the closed-vent system that are designated unsafe to inspect or difficult to inspect, each closed-vent system shall be inspected according to the procedures specified below according to the following schedule:

- i. For each closed-vent system joints, seams, or other connections that are permanently or semipermanently sealed (e.g., a welded joint between two sections of hard piping or a bolted or gasketed ducting flange):
 - A. Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
 - B. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; or broken or missing caps or other closure devices.
- ii. For closed-vent system components other than those specified in SC VI.7.a.i above:
 - Conduct an initial inspection to demonstrate that the closed-vent system operates with no detectable emissions.
 - B. Conduct annual inspections to demonstrate that the components or connections operate with no detectable emissions.
 - C. Conduct annual visual inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork; loose connections; or broken or missing caps or other closure devices.
- b. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, except as provided in SC VI.7.c.
 - i. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
 - ii. Repair shall be completed no later than 15 calendar days after the leak is detected.
- c. Delay of repair of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next shutdown.
- 8. In all cases where the provisions of 40 CFR Part 63, Subpart HHH require the permittee to repair leaks by a specified time after the leak is detected, it is a violation of 40 CFR Part 63, Subpart HHH to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the permittee shall take further action as required by the applicable provisions of this subpart. (40 CFR 63.1274(g))
- 9. Any parts of the closed-vent system that are designated as unsafe to inspect are exempt from the inspection requirements of SC VI.7 if: (40 CFR 63.1283(c)(5))
 - a. The permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger.
 - b. The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- 10. Any parts of the closed-vent system that are designated as difficult to inspect are exempt from the inspection requirements of SC VI.7 if: (40 CFR 63.1283(c)(6))
 - a. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and
 - b. The permittee has a written plan that requires inspection of the equipment at least once every 5 years.
- 11. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as unsafe to inspect in accordance with SC VI.9, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. (40 CFR 63.1284(b)(5))
- 12. The permittee shall maintain records identifying all parts of the closed-vent system that are designated as difficult to inspect in accordance SC VI.10, an explanation with condition of why the equipment is difficult to inspect, and the plan for inspecting the equipment. (40 CFR 63.1284(b)(6))
- 13. The permittee shall maintain the following records for each inspection conducted in accordance with SC VI.7 during which a leak or defect is detected. (40 CFR 63.1284(b)(7))
 - a. The instrument identification numbers, operator name or initials, and identification of the equipment.

- b. The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.
- c. Maximum instrument reading measured by the method specified in SC V.4 after the leak or defect is successfully repaired or determined to be non-repairable.
- d. "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.
- e. The name, initials, or other form of identification of the permittee (or designee) whose decision it was that repair could not be affected without a shutdown.
- f. The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.
- g. Dates of shutdowns that occur while the equipment is unrepaired.
- h. The date of successful repair of the leak or defect.
- 14. For each inspection conducted in accordance with SC VI.7 during which no leaks or defects are detected, the permittee shall maintain a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. (40 CFR 63.1284(b)(8))
- 15. The permittee shall document, to the Administrator's satisfaction, the following items: (40 CFR 63.1284(c))
 - a. The method used for achieving compliance and the basis for using this compliance method; and
 - b. The method used for demonstrating compliance with 0.90 megagrams per year of benzene.
 - c. Any information necessary to demonstrate compliance as required in the methods specified in SC VI.15.a. and b.
- 16. The permittee shall maintain records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1274(h), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.1284(f))
- 17. The permittee shall maintain records of the annual facility natural gas throughput each year. (40 CFR 63.1270(a)(3))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall prepare and submit Leak Detection Reports annually. The reports 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. The report shall include certification by a responsible official of truth, accuracy, and completeness. (40 CFR 63.1285(e))
 - a. The following information shall be included in the Reports.
 - i. A description of all deviations as defined in SCVI.7 that have occurred during the 6-month reporting period.
 - ii. For each inspection conducted in accordance with SC VI.7 during which a leak or defect is detected, the records described in SC VI.13 must be included.
 - iii. If applicable, a statement identifying if there were no deviations during the reporting period.
 - iv. The results of any periodic test conducted during the reporting period.
 - v. Information necessary to demonstrate compliance with benzene emission limit.

- 5. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the permittee shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report, whichever is sooner. The report shall include: (40 CFR 63.1285(f))
 - a. A brief description of the process change.
 - b. A description of any modification to standard procedures or quality assurance procedures.
 - c. Revisions to any of the information reported in the original Notification of Compliance Status Report under 40 CFR 63.1285(d).
 - d. Information required by the Notification of Compliance Status Report under 40 CFR 63.1285(d) for changes involving the addition of processes or equipment.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|-----------------|-------------------------------------|--|---------------------------------------|
| 1. SVDEHY | 48 ¹ | 33 ¹ | R 336.1225 |

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. (40 CFR Part 63, Subpart HHH))

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).

EUREFRIGPLANT EMISSION UNIT CONDITIONS

DESCRIPTION

Propane refrigeration plant including storage tank, flanges and valves. Installation approved per PTI 155-06D and PTI 32-15.

Flexible Group ID: FGCOMBUSTION

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

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 perform inspections and monitor operating information for EUREFRIGPLANT in accordance with the federal Standards of Performance for New Stationary sources as specified in 40 CFR Part 60, Subparts A and KKK. The permittee shall keep inspection and operating information records on file at the facility and make them available to the Department upon request.² (40 CFR Part 60, Subparts A & KKK)
- 2. The permittee shall monitor each pressure relief device in gas/vapor service once per year, in the third quarter of the year, as specified in 40 CFR Part 60 Subparts A and VV. In the event that the number of leaking valves exceed 2% of the total valves, then the pressure relief device shall be monitored quarterly and within 5 days after each pressure release event. (40 CFR 60.483(b)(3), 40 CFR 60.483(b)(4), 40 CFR 60.633(b))
- 3. In the event that a leak is detected, the permittee shall repair the leak as soon as practicable, but no later than 15 calendar days after it is detected. A first attempt at repair shall be made no later than 5 days after each leak is detected. (40 CFR 60.633(b)(3))
- 4. When a leak is detected, as specified in SC VI.2, the permittee shall attach a weatherproof and readily visible identification, marked with the equipment identification number, to the leaking equipment. The identification can be removed after the leak has been repaired. (40 CFR 60.635(b)(1))

- 5. The permittee shall record and maintain a log of the following when a leak is detected, as specified in SC VI.2. The log shall be kept for 2 years in a readily accessible location at the facility: **(40 CFR 60.635(b)(2))**
 - a. The instrument and operator identification numbers and the equipment identification number.
 - b. The date the leak was detected and the dates of each attempt to repair the leak.
 - c. Repair methods applied in each attempt to repair the leak
 - d. "Above 10,000 ppm" if the maximum instrument reading measured after each repair attempt is 10,000 ppm or greater.
 - e. "Repair delayed" and the reason for the delay if the leak is no repaired within 15 calendars after discovery of the leak.
 - f. The signature of the owner or operator whose decision it was that repair could not be affected without process shutdown.
 - g. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
 - h. Dates of the process unit shutdowns that occur while the equipment is unrepaired.
 - i. The date of successful repair of the leak.

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall submit reports for EUREFRIGPLANT in accordance with the federal Standards of Performance for New Stationary sources as specified in 40 CFR Part 60, Subparts A and KKK.² (40 CFR Part 60, Subparts A & KKK)
- 5. The permittee shall include the following information in all semiannual reports submitted to the AQD: **(40 CFR 60.636(c))**
 - a. Number of pressure relief devices for which leaks were detected, as required in SC VI.2;
 - b. Number of pressure relief devices for which leaks were not repairs as required in SC VI.3.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and KKK, as they apply to EUREFRIGPLANT.² (40 CFR Part 60, Subparts A & KKK)

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).

EUREGEN EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas ethylene glycol regenerator with thermal oxidation controls and a heat exchanger used in glycol regeneration. This emission unit is located in the Refrigeration Plant. Installation approved per PTI 155-06D and PTI 32-15.

Flexible Group ID: FGCOMBUSTION

POLLUTION CONTROL EQUIPMENT

Thermal Oxidizer (enclosed flare).

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|------------|-----------------------------------|---|-----------|--|---|
| 1. VOC | 110.3 lb. per day ² | Daily | EUREGEN | SC V.1, VI.2, VI.3, VI.4, VI.7, VI.8 | R 336.1205 R 336.1225 R 336.1702(a) R 336.1901 |
| 2. VOC | 5.1 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | EUREGEN | SC V.1, VI.2, VI.3, VI.4, VI.5, VI.6, VI.7, VI.8 | R 336.1205 R 336.1225 R 336.1702(a) R 336.1901 |
| 3. Benzene | 38.1 lb. per day ² | Daily | EUREGEN | SC V.1, VI.2, VI.3, VI.4, VI.7, VI.8 | R 336.1205(2) R 336.1225 R 336.1901 |
| 4. Benzene | 1.8 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | EUREGEN | SC V.1, VI.2, VI.3, VI.4, VI.5, VI.6, VI.7, VI.8 | R 336.1205(2) R 336.1225 R 336.1901 |

II. MATERIAL LIMIT(S)

1. The permittee shall not process more than 55,200 million standard cubic feet of natural gas per 12-month rolling time period as determined at the end of each calendar month in EUREGEN.² (R 336.1205, R 336.1702(a), R 336.1901)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not process natural gas in EUREGEN unless a minimum temperature of 1300 °F and a minimum retention time of 0.5 seconds in the thermal oxidizer are maintained.² (R 336.1205, R 336.1205, R 336.1702(a), R 336.1901, R 336.1910)

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall not process natural gas in EUREGEN unless the flash tank is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)
- 2. The permittee shall not operate EUREGEN unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)

3. The permittee shall equip and maintain the thermal oxidizer with a flame detector.² (R 336.1205, R 336.1205, R 336.1702(a), R 336.1901, R 336.1910)

4. The permittee shall operate a continuously burning pilot flame at the flare while EUREGEN is processing natural gas. In the event that the pilot flame is extinguished, the permittee shall attempt to re-light the pilot flame. If the pilot flame is not re-lit within two hours of being extinguished, the permittee shall stop processing natural gas in EUREGEN until the pilot flame is re-lit and maintained. While the pilot flame is extinguished, the permittee shall not process natural gas in EUREGEN for more than 48 hours per 12-month rolling time period, as determined at the end of each calendar month.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, 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. At least once each calendar year the permittee shall obtain, by sampling, an analysis of the wet gas stream from EUREGEN. The permittee shall analyze the sample for nitrogen, carbon dioxide, hydrogen sulfide, C1 through C6 series hydrocarbons, benzene, toluene, xylene, ethylbenzene, and heptanes plus. The permittee must submit any request for a change in the sampling frequency to the AQD District Supervisor for review and approval.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)

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 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)
- 2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas processing rate of EUREGEN on a daily basis.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)
- 3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature of the EUREGEN thermal oxidizer on a continuous basis.² (R 336.1205, R 336.1901, R 336.1910)
- 4. The permittee shall calculate the VOC and benzene emission rates from EUREGEN for each calendar month and 12-month rolling time period, using a method acceptable to the AQD District Supervisor. If GRI-GLYCalc™ (Version 3.0 or higher) is used to calculate the emission rates, the inputs to the model shall be representative of actual operating conditions of EUREGEN and shall include the most recent gas analysis data. The permittee must submit any request for a change in the calculation frequency to the AQD District Supervisor for review and approval. The permittee shall keep records of VOC and benzene emission rates on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)
- 5. The permittee shall calculate the VOC and benzene emission rates from EUREGEN on a daily basis, using a method acceptable to the AQD District Supervisor. (R 336.1213(3))
- 6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period hours of natural gas processing, for EUREGEN. 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 336.1702(a))
- 6. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period hours of natural gas processing while the flare pilot flame is extinguished. 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 336.1225, R 336.1702(a), R 336.1901, R 336.1910)

7. The permittee shall keep, in a satisfactory manner, records of the wet gas composition as determined through analysis of wet gas samples for EUREGEN, as required by SC V.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)

8. The permittee shall keep, in a satisfactory manner, daily records of the exhaust gas temperature of the thermal oxidizer, while processing natural gas. 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 336.1225, R 336.1702(a), R 336.1901, R 336.1910)

VII. REPORTING

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

See Appendix 8

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).

EUKingRdHCTank EMISSION UNIT CONDITIONS

DESCRIPTION

Hydrocarbon liquid condensate storage tank located at 3891 King Road, China, Michigan. Installation approved per PTI 141-13.

Flexible Group 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 | Hydrocarbon liquid condensate | 103,000 gal/yr ² | 12-month rolling time period as determined at the end of each calendar | | SC VI.1, SC VI.2. | R 336.1702(a) |
| | | | month. | | | |

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not store any material in EUKingRdHCTank other than hydrocarbon liquid condensate. Hydrocarbon liquid condensate means a mixture of hydrocarbons, including straight chain, branched chain, cycloalkanes and aromatics.² (R 336.1224, R 336.1225, R 336.1702(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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 monitor and record, in a satisfactory manner, the volume, in gallons of liquid added and removed from EUKingRdHCTank on a monthly basis.² (R 336.1702(a))
- 2. The permittee shall calculate the throughput, in gallons, of EUKingRdHCTank for each calendar month and 12-month rolling time period. The records shall be updated by the 15th of each month for the previous month's data. The permittee shall keep all records on file at a location approved by the AQD District Supervisor and make them available to the Department upon request.² (R 336.1702(a))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall not operate EUKingRdHCTank unless it is labeled with both of the following:² (R 336.1702(a))
 - a. EUKingRdHCTank
 - b. hydrocarbon liquid condensate

Footnotes:

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

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

D. FLEXIBLE GROUP 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 |
|-------------------|---|--|
| FGCOLDCLEANERS | Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a, and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. | EUCOLDCLEANER |
| FGCOMBUSTION | This Flexible Group includes one 15,900 HP natural gas- fired turbine engine model Mars 100 driving a centrifugal natural gas compressor, and refrigeration plant emission units that includes; two 1,480 HP engines with compressors, a hot medium oil heater, a glycol regenerator, and 4 hydrocarbon liquid storage tanks. Installation approved per PTI 155-06D and PTI 32-15. | EUENGINER1 EUENGINER2 EUHMOHEATER EULSTANK1-4 EUREFRIGPLANT EUREGEN EUTURBINE1 |
| FGEMERGENS | Two 1,818 HP emergency generators operating on natural-gas, which are subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ and subject only to the initial notification requirement. Installation approved per PTI 147-15. | EUBUGENSETTURBIN EUEMERGENZBLDG |
| FGENGINES | Five 2-cycle reciprocating internal combustion engines (RICE) with compressors that are fired with natural-gas. The pipeline compressors attached to these engines are used to inject natural-gas into and withdraw gas from a storage field. This flexible group includes one 1,000 HP GMVC, two 2,000 HP GMVC, and two 10,000 HP Cooper Z330 engines. These engines do not have to meet the requirements in 40 CFR Part 63, Subpart ZZZZ per 40 CFR 63.6590(b)(3)(i). | EU014 EU015 EU016 EU017 EU018 |
| FGENGINESR1-2 | Two 1,480 HP natural gas-fired 4-cycle lean-burn reciprocating internal combustion engines (RICE), each with a catalyst oxidation system operating at a minimum of 93% destruction efficiency on CO oxidation. These engines are located in the refrigeration plant and are used to drive propane refrigerant compressors. These engines are subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart JJJJ. Installation approved per PTI 155-06D and PTI 32-15. | EUENGINER1 EUENGINER2 |

| Flexible Group ID | Flexible Group Description | Associated |
|-------------------|---|--|
| | | Emission Unit IDs |
| FGRULE285(2)mm | Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 285(2)(mm). | EURULE285mm |
| FGRULE290 | 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. | EUK5TANK |
| FGRULE818ENGINES | Two Cooper model Z330 compressor engines no. 4 and no. 5; 10,000 HP natural gas-fired 2-cycle lean-burn reciprocating internal combustion engines (RICE) used to compress natural gas. Each engine is used to power a natural-gas pipeline compressor. These emission units are subject to State of Michigan Air Pollution Control Rule 818 (R 336.1818). Modification and operation approved per PTI 165-07. | EU017 EU018 |
| FGTURBINES | Three natural gas-fired turbines each driving a centrifugal natural gas compressor. | EUTURBINE1 EUTURBINET70 EUTURBINEC50 |
| FGBOILERSGAS1 | Requirements for existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during period of curtailment or supply interruptions are included in this definition. | EUE36LINEHTR EUW36LINEHTR EUCV1HTR |
| FGBOILERSSMALL | Requirements for existing boilers and process heaters with a heat input capacity of <10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels. | EUREFRIGPLTBLR EUZBLDGBLR EUAUXBLDGBLR EUPLT3BLR EUPLT1BLR EUTECHBLDGBLR EUBATHHTR EUHMOHEATER EUNUGHTR EUSUGHTR EU24LINEHTR |

FG-COLD CLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Unit: EUCOLDCLEANER

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases. (R 336.1611(2)(b), R 336.1707(3)(b))
- 2. The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer. (R 336.1213(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. (R 336.1281(2)(h))
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. (R 336.1285(2)(r)(iv))
- 2. The cold cleaner shall be equipped with a device for draining cleaned parts. (R 336.1611(2)(b), R 336.1707(3)(b))
- 3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. (R 336.1611(2)(a), R 336.1707(3)(a))
- 4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. (R 336.1707(3)(a))
- 5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:

- a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. (R 336.1707(2)(a))
- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. (R 336.1707(2)(b))
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. (R 336.1707(2)(c))

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

- 1. For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions. (R 336.1213(3))
- 2. The permittee shall maintain the following information on file for each cold cleaner: (R 336.1213(3))
 - a. A serial number, model number, or other unique identifier for each cold cleaner.
 - b. The date the unit was installed, manufactured or that it commenced operation.
 - c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).
 - d. The applicable Rule 201 exemption.
 - e. The Reid vapor pressure of each solvent used.
 - f. If applicable, the option chosen to comply with Rule 707(2).
- 3. The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner. (R 336.1611(3), R 336.1707(4))
- 4. As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis. (R 336.1213(3), R 336.1611(2)(c), R 336.1707(3)(c))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

FGCOMBUSTION FLEXIBLE GROUP CONDITIONS

DESCRIPTION

This Flexible Group includes one 15,900 HP natural gas-fired turbine engine model Mars 100 driving a centrifugal natural gas compressor, and refrigeration plant emission units that includes; two 1,480 HP engines with compressors, a hot medium oil heater, a glycol regenerator, and 4 hydrocarbon liquid storage tanks. Installation approved per PTI 155-06D and PTI 32-15.

Emission Units: EUENGINER1, EUENGINER2, EUHMOHEATER, EULSTANK1-4, EUREFRIGPLANT, EUREGEN, EUTURBINE1

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period/ Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|-----------|-----------------------|---|--------------|-------------------------------|--|
| 1. NOx | 35.9 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | FGCOMBUSTION | SC VI.2, SC VI.3 | R 336.1205(1)(a) and (3) |
| 2. CO | 89.9 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | FGCOMBUSTION | SC VI.2 | R 336.1205(1)(a) and (3) |
| 3. VOC | 35.9 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | FGCOMBUSTION | SC VI.2 | R 336.1205(1)(a) and (3) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn sweet natural-gas in FGCOMBUSTION.² (R 336.1205(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.² (R 336.1205(3))

- 2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx, CO, and VOC emission calculation records for FGCOMBUSTION, as required by SCI.1, I.2, I.3 and Appendix 4. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205(3))
- 3. The permittee shall use test results from the stack testing to develop emission factors in terms of pounds of NOx per million cubic feet of natural gas for EUTURBINE1. The permittee shall use the worst-case emission factor, not averaged emission factor, from the most recent stack test on EUTURBINE1. The emission factor shall be applied to the monthly fuel use to ensure compliance with the 12-month rolling emission limit, SC I.1, as specified in Appendix 4.2 (R 336.1205(1)(a) and (3), 40 CFR 52.21(c) and (d))

See Appendix 4

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

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).

FGEMERGENS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two 1,818 HP emergency generators operating on natural-gas, which are subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ and subject only to the initial notification requirement. Installation approved per PTI 147-15.

Emission Units: EUBUGENSETTURBIN, EUEMERGENZBLDG

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in FGEMERGENS.² (R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall operate the emergency generators in FGEMERGENS for emergency use only, except for 100 hours per calendar year which may be used for no more than 50 hours per year of non-emergency use in addition to routine testing and maintenance, maintenance checks and required readiness testing.² (40 CFR 63.6640(f)(3), 40 CFR 63.6675)
- 2. The permittee shall not operate either engine in FGEMERGENS for more than 850 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))
- 3. The permittee shall install, maintain, and operate each engine in FGEMERGENS according to the manufacturer written instructions, or procedures developed by the owner/operator to minimize emissions during periods of startup, shutdown and malfunction, over the entire life of the engine.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))
- 4. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5% or greater below standard voltage or frequency. (40 CFR 63.6640(f)(iii))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall equip and maintain each engine in FGEMERGENS with a non-resettable hours meter to track the operating hours.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))
- 2. The nameplate capacity of each engine in FGEMERGENS shall not exceed 1,818 HP (1,356 kW), as certified by the equipment manufacturer.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))

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 record the amount of fuel used in each emergency generator per month. (R 336.213(3))
- 2. The permittee shall monitor and record the hours of operation of each engine in FGEMERGENS, on a monthly and 12-month rolling time period basis, including how many hours are spent for emergency operation, what classified the operation as emergency, and how many hours are spent for non-emergency operation. Records shall be kept in a manner that is acceptable to the AQD District Supervisor.² (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))
- 3. The permittee shall maintain the following record for each engine in FGEMERGENS. The following information shall be recorded and kept on file at the facility:
 - a. Engine manufacturer
 - b. Date engine was manufactured
 - c. Engine model number
 - d. Engine horsepower
 - e. Maximum heat input (Btu/hr)
 - f. Engine serial number
 - g. Engine specification sheet
 - h. Date of initial startup of the engine
 - i. Date engine was removed from service at this stationary source

All of the above information shall be stored in a format acceptable to the AQD District Supervisor.² (R 336.1205, R 336.1702, 40 CFR 52.21(c) & (d))

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter/Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|---------------------|--|---------------------------------------|---------------------------------------|
| 1. SVBUGENSETTURBIN | 12 ² | 202 | R 336.1225, 40 CFR 52.21(c) & (d) |
| 2. SVEMERGENZBLDG | 122 | 202 | R 336.1225, 40 CFR 52.21(c) & (d) |

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ, for Stationary Reciprocating Internal Combustion Engines.² (40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)

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).

FGENGINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five 2-cycle reciprocating internal combustion engines (RICE) with compressors that are fired with natural-gas. The pipeline compressors attached to these engines are used to inject natural-gas into and withdraw natural gas from a storage field. This flexible group includes one 1,000 HP GMVC, two 2,000 HP GMVC, and two 10,000 HP Cooper Z330 engines. These engines do not have to meet the requirements in 40 CFR Part 63, Subpart ZZZZ per 63.6590(b)(3)(i).

Emission Units: EU014, EU015, EU016, EU017, EU018

POLLUTION CONTROL EQUIPMENT

NA

I. <u>EMISSION LIMIT(S)</u>

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2. (R 336.1301(1))

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 monitor and record the natural gas consumption for each emission unit listed in FGENGINES for each calendar month. (R 336.1213(3)(b)(ii))

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

FGENGINESR1-2 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two 1,480 HP natural gas-fired 4-cycle lean-burn reciprocating internal combustion engines (RICE), each with a catalyst oxidation system operating at a minimum of 93% destruction efficiency on CO oxidation. These engines are located in the refrigeration plant and are used to drive propane refrigerant compressors. These engines are subject to 40 CFR Part 63, Subpart ZZZZ and 40 CFR Part 60, Subpart JJJJ. Installation approved per PTI 155-06D and PTI 32-15.

Emission Units: EUENGINER1, EUENGINER2

POLLUTION CONTROL EQUIPMENT

93 percent efficient minimum CO oxidation catalyst systems.

I. <u>EMISSION LIMIT(S)</u>

| | Pollutant | Limit | Time Period/Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|----|--------------|--|-----------------------------------|------------|-------------------------------|---|
| 1. | NOx | 1.3 g/hp-hr at 100% speed and 100% load. ² | Hourly | EUENGINER1 | SC V.2 | R 336.1205(3) 40 CFR Part 60, Subpart JJJJ |
| 2. | NOx | 1.3 g/hp-hr at 100% speed and 100% load. ² | Hourly | EUENGINER2 | SC V.2 | R 336.1205(3) 40 CFR Part 60, Subpart JJJJ |
| 3. | Formaldehyde | 14 ppmvd @ 15% O _{2.} *2 | Hourly | EUENGINER1 | SC V.1, VI.6, VI.8 | R 336.1225 40 CFR Part 63, Subpart ZZZZ, Table 2a.#2 |
| 4. | Formaldehyde | 14 ppmvd @ 15% O ₂ .* ² | Hourly | EUENGINER2 | SC V.1, VI.6, VI.8 | R 336.1225 40 CFR Part 63, Subpart ZZZZ, Table 2a.#2 |
| 5. | CO | 93% reduction.*2 | Hourly** | EUENGINER1 | SC V.1, VI.6, VI.8 | 40 CFR Part 63, Subpart ZZZZ, Table 2a.#2 |
| 6. | СО | 93% reduction.*2 | Hourly** | EUENGINER2 | SC V.1, VI.6, VI.8 | 40 CFR Part 63, Subpart ZZZZ, Table 2a.#2 |
| 7. | VOC** | 1.0 g/hp-hr at 100% speed and 100% load. ² | Hourly | EUENGINER1 | SC V.2 | 40 CFR Part 60, Subpart JJJJ |
| 8. | VOC** | 1.0 g/hp-hr at 100% speed and 100% load. ² | Hourly | EUENGINER2 | SC V.2 | 40 CFR Part 60, Subpart JJJJ |

^{*}The limits shall apply at all times except during periods of startup, shutdown and malfunction.

^{**}This limit excludes formaldehyde.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in FGENGINESR1-2.2 (R 336.1225, R 336.1702(a), 40 CFR 63.6600)

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate any engine equipped with an add-on control without that control device operating properly, except as allowed by SC III.3.² (R 336.1205, R 336.1702(a), R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR 63.6, 40 CFR 63.6640(d))
- 2. The permittee may operate any engine equipped with an add-on control device for up to 200 hours per engine change-out or per maintenance event that requires reseating the piston rings without that control device, consistent with the Startup, Shutdown, Malfunction Plan (SSM).² (R 336.1205, R 336.1702(a), R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR 63.6, 40 CFR 63.6640(d))
- 3. The permittee shall not operate either engine in FGEUENGINESR1-2 or EUENGINER2 for more than 2,450 hours per 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205, R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
- 4. At all times, the permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR Part 63, Subpart ZZZZ that apply to the permittee. (40 CFR 63.6605(a))
- 5. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission limits in SC I.3 through SC 6 are applicable. (40 CFR 63.6625(h))
- 6. The permittee shall operate and maintain the engines over the entire life of the engines. (40 CFR 60.4234)

IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The permittee shall not operate FGENGINESR1-2 unless the catalytic oxidation system on each engine is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes the following:
 - a. Catalyst replacement schedule based on the manufacturer's recommended guidelines.
 - b. Catalyst bed inlet temperature as specified in 40 CFR Part 63, Subpart ZZZZ.
 - c. Pressure drop across the catalyst shall be determined during the initial performance test at full speed and load conditions, which shall be recorded and become an addendum to this permit. Subsequent pressure drops, at full speed and load conditions, shall be within the measurement of the initial test, plus or minus 2 inches of water, or the appropriate range as specified in 40 CFR Part 63, Subpart ZZZZ at the time of operation.² (R 336.1205(3), R 336.1224, R 336.1225, R 336.1910, 40 CFR 63.6600(b) and Table 2b.1)
- 2. The permittee shall maintain the temperature of EUENGINER1 and EUENGINER2 exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F, except during periods of startup, as specified in 40 CFR Part 63, Subpart ZZZZ (SC IV.1.b). (40 CFR 63.6600(b), 40 CFR Part 63, Subpart ZZZZ, Table 2b.1)
- 3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a continuous parameter monitoring system (CPMS) to continuously monitor and record the catalyst inlet temperature.² (R 336.1225, 40 CFR 63.6625(b))
- 4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a continuous parameter monitoring system (CPMS) to continuously monitor and record the catalyst inlet temperature.² (R 336.1225, 40 CFR 63.6625(b))
- 5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor, by observation, the pressure drop across each catalytic oxidizer in FGENGINESR1-2 once per month. The device shall be certified by the manufacturer to be accurate within plus or minus 2 inches water gauge pressure or the

appropriate range as specified in 40 CFR Part 63, Subpart ZZZZ at the time of operation.² (R 336.1225, 40 CFR 663.6625(b))

6. A CEMS may be installed to monitor CO and either O₂ or CO₂. If a CEMS is installed, it shall be installed, operated, and maintained according to the requirements in 40 CFR Part 63, Subpart ZZZZ. (40 CFR 63.6625(a))

V. TESTING/SAMPLING

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

- 1. Within 180 days after commencement of trial operation of each emission unit commissioned in FGENGINESR1-2, verification of the formaldehyde emission rates from each engine included in FGENGINESR1-2, or verification of the catalytic system efficiency by utilizing CO emission rates as a surrogate, from each engine included in FGENGINESR1-2, by testing at the owner's expense, in accordance with Department requirements will be required. Testing must be conducted at 100 percent speed and load ±10%, semiannually. After two consecutive passing events, the test plan can be changed to annually. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (R 336.1205(3), R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR Part 63, Subpart ZZZZ)
- 2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, the permittee shall verify NOx and VOC emission rates from each engine included in FGENGINESR1-2, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60, Subparts A and JJJJ. The permittee shall notify the AQD District Supervisor in writing within 15 days of the commencement of trial operation in accordance with 40 CFR 60.7(a)(3). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60, Appendix A. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4243(a), 40 CFR 60.4244)
- 3. The permittee shall verify the NOx and VOC emission rates from each engine in FGENGINESR1-2 every 8,760 hours of operation or three years, whichever comes first, to demonstrate compliance with SC I.1, SC I.2, SC I.7, and SC I.8. The performance test shall be conducted according to 40 CFR 60.4244. (40 CFR 60.4243(b)(2)(ii), 40 CFR 60.4244)
- 4. The permittee shall verify the formaldehyde, NOx, and VOC emission rates from each engine in FGENGINESR1-2, 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. Formaldehyde emissions shall be determined by utilizing CO emission rates as a surrogate. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
- 5. If an engine in FGENGINESR1-2 is non-operational, the permittee does not need to start up the engine solely to conduct the performance test, however, the permittee shall conduct the performance test immediately upon startup of the engine. (40 CFR 60.4244(b), 40 CFR 63.6620(b))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor in a satisfactory manner, the natural gas usage, in million standard cubic feet, for each engine included in FGENGINESR1-2 on a monthly basis.² (R 336.1205, R 336.1225, R 336.1702(a))

- The permittee shall monitor and record, in a satisfactory manner, the hours of operation for each engine included in FGENGINESR1-2 on a monthly basis.² (R 336.1205, R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
- 3. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.² (R 336.1205, R 336.1702(a), R 336.1901)
- 4. The permittee shall submit to the AQD, before initial startup of the engines, an SSM Plan and maintain a log of all maintenance activities conducted according to the SSM. The permittee shall keep this log on file at the facility and make it available to the Department upon request. Except as provided in R 336.1285, if any engine included in FGENGINESR1-2 is replaced with an equivalent-emitting or lower-emitting engine, the permittee shall notify the AQD District Supervisor of such change-out and submit acceptable emissions data to show that the alternate engine is equivalent-emitting or lower-emitting.² (R 336.1205, R 336.1702(a), R 336.1911, R 336.2803, R 336.2804, 40 CFR 60.4243, 40 CFR 52.21 (c) & (d))
- 5. The permittee shall keep, in a satisfactory manner, for any engine equipped with an add-on control device, monthly and 12-month rolling time period records of the hours that the engine is operated without the control device. 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 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))
- 6. The permittee shall keep, in a satisfactory manner, records of the 4-hour rolling average for each catalyst inlet temperature and the monthly pressure drop for each catalyst included in FGENGINESR1-2.² (40 CFR 63.6655)
- 7. The permittee shall keep, in a satisfactory manner, monthly fuel use records for each engine included in FGENGINESR1-2. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))
- 8. The permittee shall keep records of emission information and operating and maintenance information to comply with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subparts A and ZZZZ. All source emissions and operating and maintenance information shall be kept on file and made available to the Department upon request.² (40 CFR Part 63, Subparts A and ZZZZ)
- 9. The permittee shall keep records documenting that each engine included in FGENGINESR1-2 meets the emission standards specified in 40 CFR Part 60, Subpart JJJJ.² (40 CFR Part 60, Subpart JJJJ)
- 10. The permittee shall monitor continuously at all times that the stationary RICE is operating except during periods of monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations shall not be used to report emission or operating levels. All valid data collected during all other periods shall be used. (40 CFR 63.6635(b)&(c))
- 11. The permittee shall keep the following records for each engine: (40 CFR 63.6655(a))
 - a. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance.
 - b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
 - c. Records of performance tests and performance evaluations.
 - d. Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - e. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

- 12. The permittee shall keep the following records for the CMS: (40 CFR 63.6655(b))
 - a. Each period during which the CMS is malfunctioning or inoperative (including out-of-control periods).
 - b. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report).
 - c. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations.
 - d. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations.
 - e. All CMS calibration checks.
 - f. All adjustments and maintenance performed on CMS.

See Appendix 4

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. Deviation from an emission or operating limitation when using a CMS to comply with the emission and operating limitations, must include the following information: (40 CFR 63.6650(e))
 - a. The date and time that each malfunction started and stopped.
 - b. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - c. The date, time (start and stop), and duration that each CMS was out-of-control, including a description of the corrective actions taken.
 - d. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
 - e. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - f. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - g. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - h. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
 - i. A brief description of the stationary RICE.
 - i. A brief description of the CMS.
 - k. The date of the latest CMS certification or audit.
 - I. A description of any changes in CMS, processes, or controls since the last reporting period
- 5. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|-----------------|--|--|--|
| 1. SVENGINER1 | 182 | 342 | R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d) |
| 2. SVENGINER2 | 182 | 342 | R 336.1225 R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with all applicable requirements of the Federal Standards of Performance for New Stationary Sources, as specified in 40 CFR Part 60, Subparts A and Subpart JJJJ, for Stationary Spark Ignition Internal Combustion Engines. (40 CFR Part 60, Subparts A and JJJJ)
- 2. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ for Stationary Reciprocating Internal Combustion Engines. (40 CFR Part 63, Subparts A and ZZZZ)

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).

FGRULE 285(2)(mm) 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 285(2)(mm).

Emission Unit: EURULE285mm

POLLUTION CONTROL EQUIPMENT

NA

I. <u>EMISSION LIMIT(S)</u>

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall, at a minimum, implement measures to assure safety of employees and the public and minimize impacts to the environment. (R 336.1285(2)(mm)(ii)(B))
- 2. For venting of field gas for routine maintenance or relocation of gathering pipelines in amounts greater than 1,000,000 standard cubic feet, the permittee shall, at a minimum, implement measures to assure safety of employees and the public and minimize impacts to the environment. (R 336.1285(2)(mm)(iii)(B))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

NA

VII. REPORTING

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

4. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall notify the AQD District Supervisor prior to a scheduled pipeline venting. (R 336.1285(2)(mm)(ii)(A))

- 5. For venting of natural gas for routine maintenance or relocation of transmission and distribution systems in amounts greater than 1,000,000 standard cubic feet, the permittee shall provide necessary notification in accordance with the Michigan gas safety standards, the federal pipeline and hazardous materials safety administration standards, and the federal energy regulatory commission standards, as applicable. The permittee is not required to copy the AQD on the notifications. (R 336.1285(2)(mm)(ii)(B))
- 6. For emergency venting of natural gas or field gases in amounts greater than 1,000,000 standard cubic feet per event, the permittee shall notify the pollution emergency alert system (PEAS) within 24 hours of an emergency pipeline venting. For purposes of this requirement, an emergency is considered an unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property, or the environment if not controlled immediately. (R 336.1285(2)(mm)(iv))

See Appendix 8

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).

FGRULE 290 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: EUK5TANK

POLLUTION CONTROL EQUIPMENT

NA

I. <u>EMISSION LIMIT(S)</u>

- 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 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 10pounds 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(a)(2)(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 than 0.04 microgram per cubic meter. (R 336.1290(2)(a)(ii)(C))
- 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(a)(i) and/or Rule 290(a)(ii), if all of the following provisions are met: (R 336.1290(2)(a)(iii))
 - a. The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pound of particulate per 1,000 pounds of exhaust gases and which does not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute. (R 336.1290(2)(a)(iii)(A))
 - b. The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in Rule 303. (R 336.1290(2)(a)(iii)(B))
 - c. The initial threshold screening level for each particulate 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)

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 290; Permit to Install Exemption Record form (EQP 3558) or in a format that is acceptable to the AQD District Supervisor. (R 336.1213(3))
 - a. Records identifying each air contaminant that is emitted. (R 336.1213(3))
 - b. Records identifying if each air contaminant is controlled or uncontrolled. (R 336.1213(3))
 - c. Records identifying if each air contaminant is either carcinogenic or non-carcinogenic. (R 336.1213(3))
 - d. Records identifying the ITSL and IRSL, if established, of each air contaminant that is being emitted under the provisions of Rules 290(2)(a)(ii) and (iii). (R 336.1213(3))
 - e. Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions in enough detail to demonstrate that the actual emissions of the emission unit meet the emission limits outlined in this table and Rule 290. (R 336.1213(3), R 336.1290(2)(d))
 - f. Records are maintained on file for the most recent 2-year period and are made available to the department upon request. (R 336.1213(3), R 336.1290(2)(e))
- 2. The permittee shall maintain an inventory of each emission unit that is exempt pursuant to Rule 290. This inventory shall include the following information. (R 336.1213(3))
 - a. The permittee shall maintain a written description of each emission unit as it is maintained and operated throughout the life of the emission unit. (R 336.1290(2)(c), R 336.1213(3))
 - b. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall maintain a written description of the control device, including the designed control efficiency and the designed exhaust gas flow rate. (R 336.1213(3))
- 3. For each emission unit that emits noncarcinogenic particulate air contaminants pursuant to Rule 290(2)(a)(iii), the permittee shall perform a monthly visible emission observation of each stack or vent during routine operating conditions. This observation need not be performed using Method 9. The permittee shall keep a written record of the results of each observation. (R 336.1213(3))

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

FGRULE818ENGINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Two Cooper model Z330 compressor engines no. 4 and no. 5; 10,000 HP natural gas-fired 2-cycle lean-burn reciprocating internal combustion engines (RICE) used to compress natural gas. Each engine is used to power a natural-gas pipeline compressor. These emission units are subject to State of Michigan Air Pollution Control Rule 818 (R 336.1818). Modification and operation approved per PTI 165-07.

Emission Units: EU017, EU018

POLLUTION CONTROL EQUIPMENT

Each unit contains low emission combustion technology to reduce emissions of nitrogen oxides.

I. <u>EMISSION LIMIT(S)</u>

| Pollutant | Limit | Time Period/Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|-----------|---|---|-------------|-------------------------------|---|
| 1. NOx | 3.0g/hp-hr, at 100% speed and load ² | Each ozone control period (May 1 to September 30) | Each engine | SC V.1, SC VI.2 | R 336.1818(3)(b) 40 CFR 60.4233(f)(4) |
| 2. CO | 4.0g/hp-hr, at 100% speed and load | Hourly | Each engine | SC V.2 | 40 CFR 60.4233(f)(4) |
| 3. CO | 3.0g/hp-hr, at 100% speed and load ² | Hourly | Each engine | SC V.2 | R 336.2810 40 CFR 52.21(j) |
| 4. CO | 70 pounds per hour ² | Hourly | Each engine | SC V.2 | R 336.2810 40 CFR 52.21(j) |
| 5. VOC | 1.0 g/hp-hr, at 100% speed and load | Hourly | Each engine | SC V.3, SC V.4 | 40 CFR 60.4233(f)(4) |

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire pipeline quality natural gas, as defined in 40 CFR 72.2, in FGRULE818ENGINES.² (R 336.1225, R 336.1301(1), R 336.1702(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain FGRULE818ENGINES with low emission combustion technology.² (R 336.1818)

V. TESTING/SAMPLING

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

1. Within 90 days after the onset of the first ozone season following installation of low emission combustion, the permittee shall verify NOx emission rates from EU017 and EU018 by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (R 336.1818(4)(a)(i))

- 2. Within 90 days after the onset of the first ozone season following installation of low emission combustion, the permittee shall verify CO emission rates from EU017 and EU018 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed at a minimum of once every five years of operation and may be coordinated with the ROP renewal issuance. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 52.21(j))
- 3. The permittee shall verify CO, NOx, and VOC emission rates from FGRULE818ENGINES by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

| Pollutant | Test Method Reference |
|-----------|----------------------------|
| NOx | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOC | 40 CFR Part 60, Appendix A |

- 4. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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)
- 5. The permittee shall conduct CO, NOx and VOC performance testing every 8,760 hours of operation or 3 years, whichever comes first, to demonstrate compliance. (40 CFR 60.4243(b)(2)(ii))
- 6. The permittee shall submit two complete test protocols to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor for approval at least 30 days prior to the anticipated test date. The protocol shall describe the test method(s) and the maximum routine operating conditions, including targets for key operational parameters associated with air pollution control equipment to be monitored and recorded during testing. (R 336.2001(3))
- 7. 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 monitor and record the natural gas consumption for each emission unit listed in FGRULE818ENGINES for each calendar month.² (R 336.1201(3))

- 2. The permittee shall perform monitoring sufficient to yield reliable data for each ozone control period (May 1 through September 30) for each engine included in FGRULE818ENGINES, to show compliance with the NOx emission rate specified in SC I.1. Monitoring may include one of the following: (R 336.1818(4)(a)(ii))
 - a. Performance tests pursuant to Rule 818(4)(a)(ii)(A)
 - b. A parametric monitoring program that specifies operating parameters and their ranges and reasonable assurance that each engine complies with the NOx emission rate specified in SC I.1
 - c. A predictive emissions measurement system that relies on automated data collection from instruments
 - d. A continuous emission monitoring system pursuant to Rule 818(4)(a)(ii)(D)
- 3. The permittee shall keep records of emissions and operating information for FGRULE818ENGINES to comply with the State of Michigan Air Pollution Control Rule 818. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department and the United States Environmental Protection Agency upon request.² (R 336.1818(4)(b)(i))
- 4. The permittee shall keep the following records for each engine included in FGRULE818ENGINES:
 - a. Identification and location of EU017 and EU018
 - b. Calendar date of record
 - c. Type and quantity of fuel used
 - d. The results of all compliance tests

The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request.² (R 336.1818(4)(b)(ii))

- 5. The permittee shall monitor and record the engine hours for each engine for each calendar month. (R 336.1213(3))
- 6. The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any notification. (40 CFR 60.4245(a)(1))
- 7. The permittee shall maintain records of all maintenance conducted on the engine. (40 CFR 60.4245(a)(2))
- 8. If the emission units in FGRULE818ENGINES are operated in a certified manner, the permittee shall keep documentation from the manufacturer that the emissions units in FGRULE818ENGINES is certified to meet the emission standards in SC I.1, I.2 and I.5 and the information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable. (40 CFR 60.4245(a)(3))
- 9. If the emission units in FGRULE818ENGINES are operated in a non-certified manner, the permittee shall keep a maintenance plan as required in 40 CFR 63.4243(a)(2)(i) and documentation that the engine meets the emission limits in SC I.1, I.2 and I.5. (40 CFR 60.4243(a)(2)(i), 40 CFR 60.4245(a)(4))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the federal Standards of Performance for New Stationary Sources, as specified in 40 CFR Part 60, Subparts A and Subpart JJJJ, for Stationary Spark Ignition Internal Combustion Engines. (40 CFR Part 60, Subparts A and JJJJ)

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).

FGTURBINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Three natural gas-fired turbines each driving a centrifugal natural gas compressor.

Emission Units: EUTURBINE1, EUTURBINET70, EUTURBINEC50

POLLUTION CONTROL EQUIPMENT

Low NOx burners.

I. EMISSION LIMIT(S)

| | Pollutant | Limit | Time Period/Operating Scenario | Equipment | Monitoring/ Testing Method | Underlying Applicable Requirements |
|----|-----------|---|---|--------------|--|--|
| 1. | NOx | 25 ppmv at 15% oxygen ² | Hourly | EUTURBINE1 | SC V.1, SC VI.1 40 CFR 60.4340 (a) or 60.4340(b)(2)(ii) | R 336.1205(3) 40 CFR 60.4320(a) |
| 2. | NOx | 25 ppmv at 15% oxygen ² | Hourly | EUTURBINET70 | SC V.1, SC VI.1 40 CFR 60.4340(a) or 60.4340(b)(2)(ii) | 40 CFR 60.4320(a) |
| 3. | NOx | 25 ppmv at 15% ^{oxygen2} | Hourly | EUTURBINEC50 | SC V.1, SC VI.1 40 CFR 60.4340(a) or 60.4340(b)(2)(ii) | 40 CFR 60.4320(a) |
| 4. | NOx | 150 ppmv at 15% oxygen* ² | Hourly | EUTURBINE1 | SC VI.7 | R 336.1205(3) |
| 5. | NOx | 5.34 lb/hr ² | Hourly | EUTURBINET70 | SC V.2 | 40 CFR 52.21(c) and (d) |
| 6. | NOx | 3.67 lb/hr ² | Hourly | EUTURBINEC50 | SC V.2 | 40 CFR 52.21(c) and (d) |
| 7. | СО | 5.42 lb/hr ² | Hourly | EUTURBINET70 | SC V.4 | 40 CFR 52.21 (d) |
| 8. | СО | 3.72 lb/hr ² | Hourly | EUTURBINEC50 | SC V.4 | 40 CFR 52.21 (d) |
| 9. | NOx | 39.5 tpy ² | 12-month rolling time period as determined at the end of each calendar month. | | SC V.2, SC VI.4, SC VI.5, SC VI.6 | 40 CFR 52.21(c) and (d) |

^{*}This limit applies during operating loads less than 75 percent of peak load or at operating temperatures less than 0 °F.

II. MATERIAL LIMIT(S)

1. The permittee shall burn only natural gas in FGTURBINES.² (R 336.1225, R 336.1702(a), 40 CFR 60.4330)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGTURBINES unless an updated malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the

characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.² (R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, 40 CFR 52.21(c) and (d))

- 2. The total potential sulfur content of the natural gas in FGTURBINES shall not exceed 0.06 lb SO₂ per MMBTU heat input.² (40 CFR 60.4330(b))
- 3. The permittee shall not burn natural gas in EUTURBINET70 or EUTURBINEC50 until the manufacturer approved electric-start sequence is finished.² (R 336.1205(3), 40 CFR 60.4320(a))

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The permittee shall equip and maintain each turbine included in FGTURBINES with a low-NOx burner.² (40 CFR 60.4320)
- 2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the natural gas usage for FGTURBINES on a continuous basis.² (R 336.1205, 40 CFR 52.21 (c) & (d))

V. TESTING/SAMPLING

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

- 1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, federal Standards of Performance for New Stationary Sources require verification of NOx emission rates from each turbine included in FGTURBINES, by testing at owner's expense, in accordance with 40 CFR Parts 60.8 and 60.4400.
 - a. The permittee shall conduct three separate test runs, at least 20 minutes each, at ambient temperatures greater than 0 °F, and at any load condition within ±25 percent of 100 percent peak load.
 - b. Testing must be conducted annually (at least every 14 calendar months).
 - c. If the stack test result is less than or equal to 75 percent of the NOx limit in SC I.1, I.2, and I.3, the test plan can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NOx emissions greater than 75 percent of the NOx limit in SC I.1, I.2, and I.3, annual testing must be resumed.
 - d. Subsequent stack testing is not required if the permittee shows continuous compliance with the NOx emission limits with the continuous parameter monitoring system pursuant to 40 CFR 60.4340(b)(ii), as specified in SC VI.1.
 - e. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60, Appendix A.

No less than 45 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² (40 CFR 60.4400)

- 2. Within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup, the permittee shall verify NOx emission rates from EUTURBINET70 and EUTURBINEC50 by testing at the owner's expense, in accordance with the Department requirements. No less than 45 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. This testing requirement may be satisfied at the same time as testing that is required by SC V.1.² (R 336.2001, R 336.2004, R 336.2004, R 336.2004, R 336.2004, O CFR 52.21(c) and (d))
- 3. The permittee shall verify the NOx emission rates from EUTURBINET70 and EUTURBINEC50 at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

4. The department may require the permittee to verify CO emission rates from EUTURBINET70 and EUTURBINEC50 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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. 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)

- 5. 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)**)
- 6. The permittee shall submit two complete test protocols and reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor. (R 336.2001(3))

VI. MONITORING/RECORDKEEPING

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

- 1. In lieu of the subsequent stack test requirements listed in SC V.1, the permittee may instead continuously monitor appropriate parameters to determine that each turbine is operating in low-NOx mode. The parameters must be continuously monitored and recorded during the initial performance test to establish acceptable values and ranges. The permittee must develop and keep on-site a parameter monitoring plan pursuant to 40 CFR 60.4355 (a)(1) through (6).² (40 CFR 60.4340(b)(ii), 40 CFR 60.4355, 40 CFR 60.4410)
- 2. The permittee shall monitor the sulfur content in the fuel once per turbine operating day, using the methods described in 40 CFR 60.4415, or alternate methods as described in 40 CFR 60.4360. The permittee may use a custom monitoring schedule pursuant to 40 CFR 60.4370(c) if the schedule has been approved by the EPA Administrator. Sulfur in fuel monitoring is not required if it is demonstrated that the potential sulfur emissions do not exceed 0.06 lb SO₂ per MMBTU heat input. The demonstration shall include one of the following:² (40 CFR 60.4360, 40 CFR 60.4370)
 - The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content is 20 grains of sulfur per 100 standard cubic feet or less; or
 - b. Representative fuel sampling data, as specified in 40 CFR Part 75, Appendix D, Section 2.3.1.4 or 2.3.2.4, shows that the sulfur content does not exceed 0.06 lb SO₂ per MMBTU heat input.
- 3. The permittee shall keep, in a satisfactory manner, records of the sulfur content of the fuel once each operating day for FGTURBINES, as required by SC VI.2. This condition does not apply if it is demonstrated that the potential sulfur emissions do not exceed 0.06 lb SO₂ per MMBTU heat input pursuant to 40 CFR 60.4365. The permittee shall keep all records on file and make them available to the Department upon request.² (40 CFR 60.4370)
- 4. The permittee shall monitor, in a satisfactory manner, the natural gas usage from each turbine included in FGTURBINES on a monthly basis.² (R 336.1205(3), 40 CFR 52.21 (c) & (d))
- 5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for each turbine included in FGTURBINES. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.1205(3))
- 6. The permittee shall use test results from the stack testing to develop emission factors in terms of pounds of NOx per million cubic feet of natural gas for each turbine in FGTURBINES. The permittee shall use the worst-case emission factor, not averaged emission factor, from the most recent stack test. The emission factor shall be

applied to the monthly fuel use to ensure compliance with the 12-month rolling emission limit, SC I.9, as specified in Appendix 4.2 (R 336.1205(1)(a) and (3), 40 CFR 52.21(c) and (d))

7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx calculation records for FGTURBINES. The permittee shall keep all records on file and make them available to the Department upon request.² (R 336.1205(3))

See Appendix 4

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. If any of the turbines contain a continuous parameter monitoring system to determine continuous compliance with the NOx emission limits pursuant to SC VI.1, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4380(c). An excess emission is a 4-hour rolling operating hour average for each turbine in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the monitoring plan. Monitor downtime is any turbine operating hour in which any of the required parametric data are either not recorded or invalid. All reports must be postmarked by the 30th day following the end of each 6-month period.² (40 CFR 60.4375(a), 40 CFR 60.4380(c), 40 CFR 60.4395)
- 5. If the permittee is required to monitor the sulfur content in the fuel pursuant to SC VI.2 and 40 CFR 60.4360, the permittee shall submit excess emissions and monitor downtime in accordance with 40 CFR 60.7(c) and 40 CFR 60.4385. An excess emission is each turbine operating hour beginning on the date and hour that any sample shows an exceedance in the applicable sulfur limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. Monitor downtime begins when a required sample is not taken by its due date or the date and hour that invalid results are obtained. Monitor downtime ends on the date and hour of the next valid sample. All reports must be postmarked by the 30th day following the end of each 6-month period.² (40 CFR 60.4375(a), 40 CFR 60.4385, 40 CFR 60.4395)
- 6. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

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

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions | Minimum Height Above Ground | Underlying Applicable Requirements |
|-----------------|---------------------------------------|-----------------------------|---------------------------------------|
| | (inches) | (feet) | - |
| 1. SVTURBINE1 | 100.42 | 44.1 ² | R 336.1225 |
| | | | 40 CFR 52.21 (c) & (d) |
| 2. SVTURBINET70 | 80.42 | 63 ² | R 336.1225 |
| | | | 40 CFR 52.21 (c) & (d) |

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|-----------------|--|--|---------------------------------------|
| 3. SVTURBINEC50 | 64.8 ² | 63 ² | R 336.1225 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation of EUTURBINET70 and EUTURBINEC50 in accordance with 40 CFR 60.7(a)(3).² (40 CFR 60.7)
- 2. The permittee shall comply with all applicable requirements of 40 CFR Part 60 Subpart KKKK Standards of Performance for Stationary Combustion Turbines.² (R 336.1213(3), 40 CFR Part 60, Subpart KKKK)

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).

FGBOILERSGAS1 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.

Emission Units:

| Equal to or greater than 10 | EUE36LINEHTR |
|-----------------------------|--------------|
| MMBTU/hr | EUW36LINEHTR |
| | EUCV1HTR |

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall only burn natural gas. (40 CFR 63.7499(I))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall conduct an annual tune up of each boiler or process heater as specified below. The annual tune-up shall be no more than 13 months after the previous tune-up. (40 CFR 63.7500(a)(1), 40 CFR 63.7515(d), Table 3 of 40 CFR Part 63, Subpart DDDDD)
 - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. (40 CFR 63.7540(a)(10)(i))
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(ii))
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.7540(a)(10)(iii))
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject. (40 CFR 63.7540(a)(10)(iv))

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.7540(a)(10)(v))

- 5. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. (40 CFR 63.7540(a)(13))
- 6. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.7500(a)(3))

IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

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 must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that the permittee submitted. (40 CFR 63.7555(a)(1))
- 2. If the permittee uses an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under 40 CFR Part 63, Other Gas 1 fuel, or gaseous fuel subject to another subpart of 40 CFR Part 60 or Part 61, or Part 65, the permittee must keep records of the total hours per calendar year that alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies. (40 CFR 63.7555(h))
- 3. The permittee shall maintain on-site and submit, if requested by the AQD, an annual tune-up report containing the information listed below.
 - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater.
 (40 CFR 63.7540(a)(10)(vi)(A))
 - b. A description of any corrective actions taken as a part of the tune-up. (40 CFR 63.7540(a)(10)(vi)(B))
 - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. (40 CFR 63.7540(a)(10)(vi)(C))
- 4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
- 5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.7560(b))

6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years. (40 CFR 63.7560(c))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. If the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or Other Gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information as listed below.
 - a. Company name and address. (40 CFR 63.7545(f)(1))
 - b. Identification of the affected unit. (40 CFR 63.7545(f)(2))
 - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began. (40 CFR 63.7545(f)(3))
 - d. Type of alternative fuel that the permittee intends to use. (40 CFR 63.7545(f)(4))
 - e. Dates when the alternative fuel use is expected to begin and end. (40 CFR 63.7545(f)(5))
- 5. The permittee must submit boiler and process heater tune-up compliance reports to the appropriate AQD District Office. The reports must be postmarked or submitted by March 15th and must cover the period of January 1 through December 31 of the reporting year. For new units, the first report should cover the period of startup to December 31 of the reporting year. Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). (40 CFR 63.7550(b))
- 6. The permittee must submit a compliance report containing the following information.
 - a. Company and Facility name and address. (40 CFR 63.7550(c)(5)(i))
 - b. Process unit information, emissions limitations, and operating parameter limitations. (40 CFR 63.7550(c)(5)(ii))
 - c. Date of report and beginning and ending dates of the reporting period. (40 CFR 63.7550(c)(5)(iii))
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
 (40 CFR 63.7550(c)(5)(xiv))
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. (40 CFR 63.7550(c)(5)(xvii))

7. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. (40 CFR 63.7550(h)(3))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Industrial Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. (40 CFR Part 63, Subparts A and DDDDD)

Footnotes:

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

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

FGBOILERSSMALL FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Requirements for existing boilers and process heaters with a heat input capacity of < 10 MMBTU/hr for major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These boilers or process heaters are designed to burn solid, liquid, or gaseous fuels.

Emission Units:

| Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels | EUREFRIGPLTBLR EUZBLDGBLR EUAUXBLDGBLR EUPLT3BLR EUPLT1BLR EUTECHBLDGBLR |
|--|--|
| Greater than 5 MMBTUR/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr that burns any heavy liquid or solid fuels | EUBATHHTR EUHMOHEATER EUNUGHTR EUSUGHTR EU24LINEHTR |

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. (40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)
- 2. The permittee must, for boilers or process heaters with a heat input capacity of greater than 5 MMBTU/hr and less than 10 MMBTU/hr, conduct a biennial tune-up of the boiler or process heater according to 40 CFR 63.7540(a)(11) no more than 25 months after the previous tune-up. (40 CFR 63.7500(e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(11), 40 CFR Part 63, Subpart DDDDD, Table 3.2)
- 3. The permittee must conduct a tune-up of each boiler or process heater as specified in the following: (40 CFR 63.7540(a)(11) or (12))

a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or may delay the burner inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. (40 CFR 63.7540(a)(10)(i))

- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. (40 CFR 63.7540(a)(10)(ii))
- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown. Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.7540(a)(10)(iii))
- d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject. (40 CFR 63.7540(a)(10)(iv))
- e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. (40 CFR 63.7540(a)(10)(v))
- 4. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. (40 CFR 63.7540(a)(13))
- 5. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (40 CFR 63.7500(a)(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. <u>TESTING/SAMPLING</u>

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 must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or 2 year, or 5 year compliance report or one-time energy assessment that the permittee submitted. (40 CFR 63.7555(a)(1))
- 2. The permittee must keep the records in a form suitable and readily available for expeditious review. (40 CFR 63.7560(a))
- 3. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.7560(b))

4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. (40 CFR 63.7560(c))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))
- 4. The permittee must submit boiler or process heater tune-up compliance reports to the appropriate AQD District Office and must be postmarked or submitted by March 15 of the year following the applicable 2 or 5-year period starting from January 1 of the year following the previous tune-up to December 31 (of the latest tune-up year). Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through the EPA's Central Data Exchange (CDX) (http://www.epa.gov/cdx). If the reporting form is not available in CEDRI at the time the compliance report is due, a hardcopy of the compliance report shall be submitted to EPA Region 5. (40 CFR 63.7550(b), 40 CFR 63.7550(h)(3))
- 5. The permittee must include the following information in the compliance report. (40 CFR 63.7550(c)(1))
 - a. Company and Facility name and address. (40 CFR 63.7550(c)(5)(i))
 - b. Process unit information, emissions limitations, and operating parameter limitations. (40 CFR 63.7550(c)(5)(ii))
 - c. Date of report and beginning and ending dates of the reporting period. (40 CFR 63.7550(c)(5)(iii))
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done biennially or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. (40 CFR 63.7550(c)(5)(xiv))
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. (40 CFR 63.7550(c)(5)(xvii))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. (40 CFR Part 63, Subparts A and DDDDD)

Footnotes:

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

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

| Common Acronyms | | | Pollutant / Measurement Abbreviations |
|-----------------|--|-------------------|--|
| AQD | Air Quality Division | acfm | Actual cubic feet per minute |
| BACT | Best Available Control Technology | BTU | British Thermal Unit |
| CAA | Clean Air Act | °C | Degrees Celsius |
| CAM | Compliance Assurance Monitoring | CO | Carbon Monoxide |
| CEM | Continuous Emission Monitoring | CO ₂ e | Carbon Dioxide Equivalent |
| CEMS | Continuous Emission Monitoring System | dscf | Dry standard cubic foot |
| CFR | Code of Federal Regulations | dscm | Dry standard cubic meter |
| COM | Continuous Opacity Monitoring | °F | Degrees Fahrenheit |
| Department/ | Michigan Department of Environment, | gr | Grains |
| department | Great Lakes, and Energy | HAP | Hazardous Air Pollutant |
| EGLE | Michigan Department of Environment, | Hg | Mercury |
| 1 | Great Lakes, and Energy | hr | Hour |
| EU | Emission Unit | HP | Horsepower |
| FG | Flexible Group | H ₂ S | Hydrogen Sulfide |
| GACS | Gallons of Applied Coating Solids | kW | Kilowatt |
| GC | General Condition | lb | Pound |
| GHGs | Greenhouse Gases | m | Meter |
| HVLP | High Volume Low Pressure* | mg | Milligram |
| ID | Identification | mm | Millimeter |
| IRSL | Initial Risk Screening Level | MM | Million |
| ITSL | Initial Threshold Screening Level | MW | Megawatts |
| LAER | Lowest Achievable Emission Rate | NMOC | Non-methane Organic Compounds |
| MACT | Maximum Achievable Control Technology | NO _x | Oxides of Nitrogen |
| MAERS | Michigan Air Emissions Reporting System | ng | Nanogram |
| MAP | Malfunction Abatement Plan | PM | Particulate Matter |
| MSDS | Material Safety Data Sheet | PM10 | Particulate Matter equal to or less than 10 |
| NA | Not Applicable | | microns in diameter |
| NAAQS | National Ambient Air Quality Standards | PM2.5 | Particulate Matter equal to or less than 2.5 microns in diameter |
| NESHAP | National Emission Standard for Hazardous | pph | Pounds per hour |
| Nepe | Air Pollutants New Source Performance Standards | ppm | Parts per million |
| NSPS NSR | New Source Review | ppmv | Parts per million by volume |
| PS | Performance Specification | ppmw % | Parts per million by weight Percent |
| PSD | Prevention of Significant Deterioration | psia | Pounds per square inch absolute |
| PTE | Permanent Total Enclosure | | Pounds per square inch gauge |
| PTI | Permit to Install | psig scf | Standard cubic feet |
| RACT | Reasonable Available Control Technology | sec | Seconds |
| ROP | Renewable Operating Permit | SO ₂ | Sulfur Dioxide |
| SC | Special Condition | TAC | Toxic Air Contaminant |
| SCR | Selective Catalytic Reduction | | Temperature |
| SNCR | Selective Catalytic Reduction Selective Non-Catalytic Reduction | Temp THC | Total Hydrocarbons |
| SRN | State Registration Number | tpy | Tons per year |
| TEQ | Toxicity Equivalence Quotient | | Microgram |
| USEPA/EPA | United States Environmental Protection | μg μm | Micrometer or Micron |
| JOLI A/LFA | Agency | VOC | Volatile Organic Compounds |
| i | | 1 400 | Volatile Organie Compounds |

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

Appendix 2. Schedule of Compliance

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

Appendix 3. Monitoring Requirements

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

Appendix 4. Recordkeeping

The permittee shall use the following approved formats and procedures for the recordkeeping requirements referenced in EUREGEN, FGCOMBUSTION, FGENGINESR1-2, and FGTURBINES. Alternative formats must be approved by the AQD District Supervisor.

EUREGEN

The permittee shall use emission factors contained in the most recent AP-42 (Compilation of Air Pollutant Emission Factors), GRI-GLYCalc[™] (Version 3.0 or higher), or the most recent FIRE (Factor Information Retrieval) database if vendor or stack testing data is not available. If emission factors from other sources are used, the permittee shall obtain the approval of the AQD District Supervisor before using the emission factors to calculate emissions. The permittee shall document the source of each emission factor used in the calculations.²

FGCOMBUSTION

The permittee shall demonstrate compliance with the emission limits by keeping track of all fuel usage for FGCOMBUSTION at this facility and multiplying that fuel usage by an equipment-specific emission factor. The emission factors are typically expressed as the mass of pollutant per unit of fuel. The permittee shall document the source of each emission factor used in the calculations.²

FGENGINESR1-2 AND FGTURBINES

For each engine (EUENGINER1 and EUENGINER2) and each turbine (EUTURBINE1, EUTURBINET70, and EUTURBINEC50), the permittee shall use emission factors from source-specific testing (stack testing), as available for each engine and turbine included in FGENGINESR1-2 and FGTURBINES. This also applies to engine(s) from engine change-out(s). If emission factors from other sources are used, the permittee shall obtain the approval of the AQD District Supervisor before using the emission factors to calculate emissions. The permittee shall document the source of each emission factor used in the calculations.²

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-B6478-2016. 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-B6478-2016 is being reissued as Source-Wide PTI No. MI-PTI-B6478-2021.

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

Appendix 7. Emission Calculations

Specific emission calculations to be used with monitoring, testing or recordkeeping data are detailed in the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use 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.