|  |  |  |
| --- | --- | --- |
|  | **MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY**  **AIR QUALITY DIVISION** |  |
| EFFECTIVE DATE: September 22, 2023  ISSUED TO  **Washington 10 Storage Corporation**  State Registration Number (SRN): N3391  LOCATED AT  12700 30 Mile Road, Washington Township, Macomb County, Michigan 48095 | | |
|  | | |
| **RENEWABLE OPERATING PERMIT**  Permit Number: MI-ROP-N3391-2023  Expiration Date: September 22, 2028  Administratively Complete ROP Renewal Application  Due Between March 22, 2027 and March 22, 2028  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-N3391-2023  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 PTl terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act. |

Michigan Department of Environment, Great Lakes, and Energy

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Joyce Zhu, Warren District Supervisor **TABLE OF CONTENTS**

[AUTHORITY AND ENFORCEABILITY 3](#_Toc146264120)

[A. GENERAL CONDITIONS 4](#_Toc146264121)

[Permit Enforceability 4](#_Toc146264122)

[General Provisions 4](#_Toc146264123)

[Equipment & Design 5](#_Toc146264124)

[Emission Limits 5](#_Toc146264125)

[Testing/Sampling 5](#_Toc146264126)

[Monitoring/Recordkeeping 6](#_Toc146264127)

[Certification & Reporting 6](#_Toc146264128)

[Permit Shield 7](#_Toc146264129)

[Revisions 8](#_Toc146264130)

[Reopenings 8](#_Toc146264131)

[Renewals 9](#_Toc146264132)

[Stratospheric Ozone Protection 9](#_Toc146264133)

[Risk Management Plan 9](#_Toc146264134)

[Emission Trading 9](#_Toc146264135)

[Permit to Install (PTI) 10](#_Toc146264136)

[B. SOURCE-WIDE CONDITIONS 11](#_Toc146264137)

[C. EMISSION UNIT CONDITIONS 12](#_Toc146264138)

[EMISSION UNIT SUMMARY TABLE 12](#_Toc146264139)

[EU-DIRECTHEATER 14](#_Toc146264140)

[EU-GENERATOR 16](#_Toc146264141)

[D. FLEXIBLE GROUP CONDITIONS 18](#_Toc146264142)

[FLEXIBLE GROUP SUMMARY TABLE 18](#_Toc146264143)

[FG-ENGINES1 20](#_Toc146264144)

[FG-ENGINES2 24](#_Toc146264145)

[FG-INDHEATERS1 32](#_Toc146264146)

[FG-INDHEATERS2 34](#_Toc146264147)

[FG-MACT 5D LARGE 36](#_Toc146264148)

[FG-MACT 5D SMALL 40](#_Toc146264149)

[FG-HCTANKS 43](#_Toc146264150)

[FG-COLDCLEANERS 45](#_Toc146264151)

[FG-RULE285(2)(mm) 48](#_Toc146264152)

[E. NON-APPLICABLE REQUIREMENTS 50](#_Toc146264153)

[APPENDICES 51](#_Toc146264154)

[Appendix 1. Acronyms and Abbreviations 51](#_Toc146264155)

[Appendix 2. Schedule of Compliance 52](#_Toc146264156)

[Appendix 3. Monitoring Requirements 52](#_Toc146264157)

[Appendix 4. Recordkeeping 52](#_Toc146264158)

[Appendix 5. Testing Procedures 52](#_Toc146264159)

[Appendix 6. Permits to Install 52](#_Toc146264160)

[Appendix 7. Emission Calculations 53](#_Toc146264161)

[Appendix 8. Reporting 53](#_Toc146264162)

[Appendix 9. Preventative Maintenance Plan 53](#_Toc146264163)

**AUTHORITY AND ENFORCEABILITY**

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

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

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

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

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

**A. GENERAL CONDITIONS**

## Permit Enforceability

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

## General Provisions

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

## Equipment & Design

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

## Emission Limits

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

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

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

## Testing/Sampling

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

## Monitoring/Recordkeeping

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

## Certification & Reporting

1. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
2. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
3. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
4. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
   1. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
   2. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
   3. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.
5. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
   1. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
   2. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; “based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete.” The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
6. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
7. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
8. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.2 **(R 336.1912)**

## Permit Shield

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

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

1. Nothing in this ROP shall alter or affect any of the following:
   1. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
   2. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
   3. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
   4. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA.   
      **(R 336.1213(6)(b)(iv))**
2. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
   1. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
   2. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
   3. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
   4. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
   5. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
3. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

## Revisions

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

## Reopenings

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

## Renewals

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

## Stratospheric Ozone Protection

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

## Risk Management Plan

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

## Emission Trading

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

## Permit to Install (PTI)

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

**Footnotes:**

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

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

**B. SOURCE-WIDE CONDITIONS**

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

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

**C. EMISSION UNIT** **CONDITIONS**

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

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

## EMISSION UNIT SUMMARY TABLE

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

| **Emission Unit ID** | **Emission Unit Description**  **(Including Process Equipment & Control Devices** | **Installation**  **Date/**  **Modification Date** | **Flexible Group ID** |
| --- | --- | --- | --- |
| EU-DIRECTHEATER | Direct natural gas fired line heater that burns natural gas or flash gas, 15 MMBTU/hr. | 07-01-99 | FG-MACT 5D LARGE |
| EU-GENERATOR | Natural gas fired emergency generator; 1,000 kilowatt (kW) (approximately 1,340 bhp). | 07-01-99 | NA |
| EU-ENGINE1 | Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP. | 07-01-99 | FG-ENGINES1 |
| EU-ENGINE2 | Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP. | 07-01-99 | FG-ENGINES1 |
| EU-ENGINE3 | Natural gas fired reciprocating internal combustion compressor engine; 4,000 HP. | 07-01-99 | FG-ENGINES1 |
| EU-ENGINE4 | Caterpillar natural gas fired reciprocating internal combustion engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX1). | 08-11-05 | FG-ENGINES2 |
| EU-ENGINE5 | Natural gas fired internal combustion reciprocating engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX2). | 09-01-06 | FG-ENGINES2 |
| EU-ENGINE6 | Natural gas fired internal combustion reciprocating engine; 4,735 HP, controlled by an associated catalytic oxidizer (DVCATOX3). | 09-01-06 | FG-ENGINES2 |
| EU-INDHEATER1 | Indirect natural gas fired line heater; 10 MMBTU/hr. | 07-01-99 | FG-INDHEATERS1  FG--MACT 5D LARGE |
| EU-INDHEATER2 | Indirect natural gas fired line heater; 10 MMBTU/hr. | 07-01-99 | FG-INDHEATERS1  FG-MACT 5D LARGE |
| EU-INDHEATER3 | Indirect natural gas fired line heater; 10 MMBTU/hr. | 07-01-99 | FG-INDHEATERS1  FG-MACT 5D LARGE |
| EU-INDHEATER4 | Natural gas fired line heater; 10 MMBTU/hr. | 11-01-06 | FG-INDHEATERS2  FG-MACT 5D LARGE |
| EU-HCTANK1 | Hydrocarbon storage tank; 29,400 gallon (gal.), controlled by an enclosed flare (DVFLARE) or direct fired heater (EUDIRECTHEATER). | 07-01-99 | FG-HCTANKS |
| EU-HCTANK2 | Hydrocarbon storage tank; 29,400 gal., controlled by DVFLARE or direct fired heater (EUDIRECTHEATER). | 07-01-99 | FG-HCTANKS |
| EU-HCTANK3 | Hydrocarbon storage tank; 29,400 gal., controlled by DVFLARE or direct fired heater (EUDIRECTHEATER). | 07-01-99 | FG-HCTANKS |
| EU-HCTANK4 | Water and hydrocarbon storage tank; 29,400 gal., controlled by an enclosed flare or direct fired heater (EUDIRECTHEATER). | 07-01-99 | FG--MACT 5D SMALL |
| EU-P1\_BMBLR1 | Aerco BMK2000, 2 MMBtu/hour boiler located in Plant #1 Aux Bldg. | 12-03-21 | FG-MACT 5D SMALL |
| EU-P1\_BMBLR2 | Aerco BMK2000, 2 MMBtu/hour boiler located in Plant #1 Aux Bldg. | 09-20-21 | FG-MACT 5D SMALL |
| EU-P1\_BMBLR3 | Aerco BMK2000, 2 MMBtu/hour boiler located in Plant #1 Aux Bldg. | 11-19-21 | FG-MACT 5D SMALL |
| EU-P1\_BMBLR4 | 1 MMBtu/hour boiler located in Plant #1 Aux Bldg. | 04-27-21 | FG-MACT 5D SMALL |
| EU-P2\_BMBLR1 | Aerco BMK2000, 2 MMBtu/hour boiler located in Plant #2 Aux Bldg. | 12-15-21 | FG-MACT 5D SMALL |
| EU-P2\_BMBLR2 | Aerco BMK2000, 2 MMBtu/hour boiler located in Plant #2 Aux Bldg. | 12-15-21 | FG-MACT 5D SMALL |
| EU-P2\_BMBLR3 | 1.5 MMBtu/hour boiler located in Plant #2 Aux Bldg. | 04-07-21 | FG-MACT 5D SMALL |
| EU-COLDCLEANER1 | New cold cleaner that is exempt from NSR permitting by R 336.1281(h), or R  336.1285(r)(iv), pursuant to R 336.1278. | After 07-01-79 | FG-COLDCLEANERS |
| EU-COLDCLEANER2 | New cold cleaner that is exempt from NSR permitting by R 336.1281(h), or R 336.1285(r)(iv), pursuant to R 336.1278. | After 07-01-79 | FG-COLDCLEANERS |
| EU-RULE285 (mm) | Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278 and 285 (mm). | NA | FG-RULE285(mm) |

## EU-DIRECTHEATER

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A 15 MMBTU/hr. direct natural gas fired heater used to regenerate desiccant beads that dehydrate the natural gas as it is withdrawn from the reservoir. This heater is capable of burning natural gas or flash gas from the hydrocarbon storage tanks (FG-HCTANKS).

**Flexible Group ID:** FG-MACT 5D LARGE

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 3.2 tpy2 | 12-month rolling time period | EU-DIRECTHEATER | SC VI.3 | **R 336.1205(1)** |
| 2. CO | 3.9 tpy2 | 12-month rolling time period | EU-DIRECTHEATER | SC VI.3 | **R 336.1205(1)** |

**II. MATERIAL LIMITS**

| **Material** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Total Gas   Usage | 45 million cubic feet2 | 12-calendar month rolling time period | EU-DIRECTHEATER | SC VI.2 | **R 336.1205(1)** |

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep a record of the gas usage per calendar month for EU-DIRECTHEATER on file for a period of at least five years and made available to the Air Quality Division upon request.2 (**R 336.1205(1))**
2. The permittee shall calculate and keep, in a format acceptable to the AQD District Supervisor, records of the 12-month rolling gas usage for EU-DIRECTHEATER. **(R 336.1213(3))**
3. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling NOx and CO emissions for EU-DIRECTHEATER. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed using a method approved by the AQD District Supervisor. (**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 RESTRICTIONS**

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-DIRECTHEATER | NA2 | 202 | **R 336.1201(3)** |

**IX. OTHER REQUIREMENTS**

1. The permittee must comply with the applicable requirements in 40 CFR Part 63, Subpart DDDDD, for existing boilers and process heaters. **(40 CFR 63.7495(b))**

**Footnotes:**

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

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

## EU-GENERATOR

**EMISSION UNIT CONDITIONS**

**DESCRIPTION**

1,000 kW (approximately 1,340 bhp), natural gas fired, emergency generator.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 2.8 tpy2 | 12-month rolling time period | EU-GENERATOR | SC VI.3 | **R 336.1205(1)** |
| 2. CO | 2.7 tpy2 | 12-month rolling time period | EU-GENERATOR | SC VI.3 | **R 336.1205(1)** |

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The total operating hours of EU-GENERATOR shall not exceed 876 hours per 12-month rolling time period.2  **(R 336.1205(1))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep a record of the hours of operation per calendar month for EU-GENERATOR on file for a period of at least five years and made available to the Air Quality Division upon request.2 **(R 336.1205(1)**
2. The permittee shall calculate and keep, in a format acceptable to the AQD District Supervisor, records of the 12-month rolling total hours of operation for EU-GENERATOR. (**R 336.1213(3))**
3. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling total NOx and CO emission rates, in tons, from EU-GENERATOR. (**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 RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

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

**D. FLEXIBLE GROUP CONDITIONS**

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

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

## FLEXIBLE GROUP SUMMARY TABLE

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

| **Flexible Group ID** | **Flexible Group Description** | **Associated**  **Emission Unit IDs** |
| --- | --- | --- |
| FG-ENGINES1 | Three natural gas fired reciprocating engines used to drive natural gas compressors. All three engines are rated at 4,000 HP each. | EU-ENGINE1  EU-ENGINE2  EU-ENGINE3 |
| FG-ENGINES2 | Three 4-stroke lean burn (4SLB), natural gas fired reciprocating engines used to drive natural gas compressors. Each engine is rated at 4,735 HP and has an associated catalytic oxidizer. | EU-ENGINE4  EU-ENGINE5  EU-ENGINE6 |
| FG-INDHEATERS1 | Three natural gas fired indirect heaters. All three heaters are rated at 10 MMBTU/hr. | EU-INDHEATER1  EU-INDHEATER2  EU-INDHEATER3 |
| FG-INDHEATERS2 | One 10 MMBTU/hr. indirect gas fired line heaters. | EU-INDHEATER4 |
| FG-HCTANKS | Four 29,400-gallon storage tanks. EUHCTANK1, EUHCTANK2, and EUHCTANK3 are used to hold liquid hydrocarbon that has been separated from the natural gas by the desiccant towers during periods of withdrawal. EUHCTANK4 contains a mixture of water and hydrocarbon. These storage tanks are controlled by an enclosed flare or the direct fired heater (EUDIRECTHEATER) (PTI No. 132-13). | EU-HCTANK1  EU-HCTANK2  EU-HCTANK3  EU-HCTANK4 |
| FG-MACT 5D LARGE | Requirements for new 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. | EU-DIRECTHEATER  EU-INDHEATER1  EU-INDHEATER2  EU-INDHEATER3  EU-INDHEATER4 |
| FG-MACT 5D LARGE | Requirements for new boiler(s) and process heater(s) 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. | EU-P1\_BMBLR1  EU-P1\_BMBLR2  EU-P1\_BMBLR3  EU-P1\_BMBLR4  EU-P2\_BMBLR1  EU-P2\_BMBLR2  EU-P2\_BMBLR3 |
| FG-COLDCLEANERS | 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. | EU-COLDCLEANER1  EU-COLDCLEANER2 |
| FG-RULE285 (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). | EU-RULE285(mm) |

## FG-ENGINES1

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three 4,000 HP natural gas fired reciprocating engines used to drive natural gas compressors for transport between storage field and pipeline system.

**Emission Units:** EU-ENGINE1, EU-ENGINE2, EU-ENGINE3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 1.3 grams/hp-hourA2 | Hourly | EU-ENGINE1  EU-ENGINE2  EU-ENGINE3 | SC V.1, SC V.3 | **R 336.1205(1)** |
| 2. NOx | 227.0 tpy2 | 12-month rolling, as determined at the end of each calendar month | FG-ENGINES1 | SC VI.1,  SC VI.2,  SC VI.3 | **R 336.1205(1)**  **40 CFR 52.21(c) & (d)** |
| 3. CO | 2.0 grams/hp- hourA2 | Hourly | EU-ENGINE1  EU-ENGINE2  EU-ENGINE3 | SC V.1, SC V.3 | **R 336.1205(1)** |
| 4. CO | 228.6 tpy2 | 12-month rolling, as determined at the end of each calendar month | FG-ENGINES1 | SC VI.1, SC VI.3 | **R 336.1205(1)**  **40 CFR 52.21(c) & (d)** |
| 5. VOC | 0.90 gram/hp- hourA2 | Hourly | EU-ENGINE1  EU-ENGINE2  EU-ENGINE3 | SC V.1, SC V.3 | **R 336.1205(1)** |
| 6. VOC | 103.8 tpy2 | 12-month rolling, as determined at the end of each calendar month | FG-ENGINES1 | SC VI.1, SC VI.3 | **R 336.1205(1)**  **R 336.1702(a)** |

A Gram per horsepower-hour at 100 percent torque and speed

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FG-ENGINES1 unless the clean-burn combustion system is installed and operating.2 **(R 336.1205, R 336.1702(a), 40 CFR 52.21 (c)&(d))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

1. The permittee shall verify NOx, CO, and VOC emission rates in SC I.1, I.3, and I.5 from each engine in FG-ENGINES1 by testing at owner's expense, in accordance with the Department requirements. Testing must be conducted at 100 percent speed and torque. Engine 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 |

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)**

1. The permittee shall establish CO and VOC emission factors for each engine in FG-ENGINES1 to calculate 12-month rolling CO and VOC emissions, by testing at the owner’s expense, in accordance with Department requirements. Testing shall be performed at 60% torque and 100% speed and 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)**
2. The permittee shall verify the NOx, CO, and VOC emission rates and establish CO and VOC emission factors from each engine in FG-ENGINES1, 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)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be 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 operating parameters and emission factors used to calculate and/or predict hourly emissions of NOx, CO and VOC, along with the calculated monthly emissions, in tons, for FG-ENGINES1 shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. The permittee shall calculate for each previous calendar month time period emissions of NOx, CO and VOC in tons, by the fifteenth day of the following month. The permittee shall calculate the nitrogen oxides, as nitrogen dioxide, emission rates using the protocol reviewed and approved by the Air Quality Division dated March 6, 1998, amended March 27, 1998, and conditionally approved April 6, 1998.2 **(R336.1205(1))**
2. The permittee shall calculate the hourly NOx emission rate using the equation in Appendix 7, from the protocol specified in FG-ENGINES1 SC VI.1. The recorded hourly average torque and speed data required in FG-ENGINES1 VI.6 shall be used as inputs for the equation in Appendix 7.The calculated hourly NOx emission rate shall be used to calculate monthly and 12-month rolling emission rates. **(R 336.1213(3))**
3. The permittee shall keep monthly and 12-month rolling records of the total NOx, CO, and VOC emissions, in tons, for FG-ENGINES1. The emission factor established in SC V.2 shall be used to calculate 12-month rolling CO and VOC emissions. The calculated emissions for each calendar month shall be available to the AQD upon request. **(R 336.1213(3))**
4. The permittee shall maintain on file normal operating ranges specified by the manufacturer or established through stack testing for engine parameters listed in FGENGINES1 VI.6. **(R 336.1213(3))**
5. The permittee shall monitor the torque and speed of each engine in FG-ENGINES1 on a continuous basis and ensure that each engine is operated within the ranges for which the CO and VOC emission factors have been based upon. **(R 336.1213(3))**
6. The permittee shall monitor and record, in a satisfactory manner acceptable to the AQD District Supervisor, the following for each engine in FG-ENGINES1 on a continuous basis, during operation of the engine. Data recordings shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The recorded data shall be reduced to one hour block averages.: **(R 336.1213(3))**
   1. Hours of engine operation
   2. Average hourly percent torque
   3. Average hourly percent speed
   4. Fuel consumption
   5. Average hourly air manifold temperature
   6. Average hourly air manifold pressure
   7. Ignition timing
7. For each engine, an audible alarm shall be installed and operated when system parameters are outside of normal operating ranges as specified by the manufacturer or established through stack testing. **(R 336.1213(3))**
8. The permittee shall conduct preventive maintenance activities in accordance with Appendix 9. The permittee shall keep on file a copy the Manufacturer’s Commercial Engine Maintenance Schedule and records of maintenance activities performed on each engine in FG-ENGINES1. **(R 336.1213(3))**

**See Appendices 7 and 9**

**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))**

1. 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))**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than 7 days prior to the anticipated test date. **(R 336.2001(4))**
3. The permittee shall submit two complete test reports of the test results to the AQD, one to the Technical Programs Unit Supervisor and one to the District Supervisor, within 60 days following the last date of the test. **(R 336.2001(5))**

**See Appendix 8**

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

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-ENGINE1 | 482 | 522 | **40 CFR 52.21(c) & (d)** |
| 2. SV-ENGINE2 | 482 | 522 | **40 CFR 52.21(c) & (d)** |
| 3. SV-ENGINE3 | 482 | 522 | **40 CFR 52.21(c) & (d)** |

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart 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).

## FG-ENGINES2

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three spark ignition, 4-stroke lean burn (4SLB), 4,735 HP Caterpillar natural gas fired reciprocating engines used to drive natural gas compressors. Each engine is subject to 40 CFR Part 63 Subparts A and ZZZZ and has an associated catalytic oxidizer.

**Emission Units:** EU-ENGINE4, EU-ENGINE5, EU-ENGINE6

**POLLUTION CONTROL EQUIPMENT**

Catalytic Oxidizers, with at least 93 percent control efficiency (DVCATOX1, DVCATOX2, DVCATOX3)

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/**  **Operating**  **Scenario** | **Equipment** | **Testing / Monitoring Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 0.90 g/hp-hr2 | Hourly | Each engine in FG-ENGINES2 | SC.V.1 | **R336.1205(1)(a) and (3),  40 CFR 52.21 (c) and (d)** |
| 1. NOx | 130.4 tpy2 | 12-month rolling time period as determined at the end of each calendar month. | FG-ENGINES2 | SC VI.4 | **R336.1205(1)(a) and (3)** |
| 1. CO | 2.5 g/hp-hr2 pre-catalyst | Hourly | Each engine in FG-ENGINES2 | SC.V.2 | **R336.1205(1)(a) and (3),  40 CFR 52.21 (c) and (d)** |
| 1. CO | 25.4 tpya,2 | 12-month rolling time period as determined at the end of each calendar month. | FG-ENGINES2 | SC.VI.5 | **R336.1205(1)(a) and (3),  40 CFR Part 63 Subpart ZZZZ** |
| 1. Carbon Monoxide | 93% reduction or more in CO emissions | 4-hour rolling average | FG-ENGINES2 | SC V.2  SC V.4  SC VI.2  SC VI.3 | **40 CFR 63.6600(b)** |
| 1. VOC | 1.0 g/hp-hr2 | Hourly | Each engine in FG-ENGINES2 | SC.V.1 | **R336.1702(a)** |
| 1. VOC | 144.8 tpy2 | 12-month rolling time period as determined at the end of each calendar month. | FG-ENGINES2 | SC.VI.4 | **R336.1205(1)(a) and (3)** |

a Emissions do not include break-in emissions, as defined in SCIII.3, and are post catalyst @ 93% control.

**II. MATERIAL LIMITS**

1. The permittee shall only burn pipeline natural gas in FG-ENGINES2.2  **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EU-ENGINE4, EU-ENGINE5, or EU-ENGINE6 unless the “Preventive Maintenance Plan” specified in Rule 911(2), is implemented and maintained. Amendment to the plan shall be subject to the review and approval of the AQD District Supervisor.2 **(R 336.1910, R 336.1911)**

2. The permittee shall operate FGENGINES2 within normal operating ranges specified by the manufacturer or established through stack testing. If normal operating ranges are exceeded, the permittee shall implement a malfunction abatement plan (MAP), specified in Rule 911(2), and other activities necessary to ensure that system parameters are operated within normal operating ranges.2 **(R 336.1911, R 336.1912, 40 CFR 52.21 (c) and (d))**

3. The total break-in hours for each engine in FGENGINES2 shall not exceed 200 hours. The break-in period is defined as the period of time from initiation of combustion firing.2 **(40 CFR 63.6640(d))**

4. At all times, the permittee must operate and maintain any engine in FG-ENGINES2 including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. 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 63.6605(b)**

5. The permittee shall 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 standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to 40 CFR 63, Subpart ZZZZ apply. **(40 CFR 63.6625(h))**

1. The permittee must prepare a site-specific monitoring plan for each engine in FG-ENGINES2 that addresses the continuous parameter monitoring system (CPMS) design, data collection, and the quality assurance and quality control elements as outlined in and in 40 CFR 63.8(d) and the following: **(40 CFR 63.6625(b)(1))**

a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations; **(40 CFR 63.6625(b)(1)(i))**

b. Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements; **(40 CFR 63.6625(b)(1)(ii))**

c. Equipment performance evaluations, system accuracy audits, or other audit procedures; **(40 CFR 63.6625(b)(1)(iii))**

d. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); **(40 CFR 63.6625(b)(1)(iv))**

e. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i). **(40 CFR 63.6625(b)(1)(v))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate each unit in FG-ENGINES2 unless the respective catalytic oxidation system for that engine is installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes the following:2 **(R 336.1205(1)(a) and (3), R 336.1224, R 336.1225, R 336.1910, 40 CFR 63.6640(a), Table 2b Item 1 in 40 CFR Part 63 Subpart ZZZZ)**:
2. Catalyst replacement is performed on a schedule based on the manufacturer’s recommended guidelines.
3. Catalyst bed inlet temperature greater than or equal to 450°F and less than or equal to 1350°F.
4. Pressure drop across the catalyst shall be recorded and included in the Startup/Shutdown/Malfunction Plan. Subsequent pressure drops, at full speed, or other parameters that denote normal operating ranges as mentioned in SC.III.2, at 100 percent load (plus or minus 10%), shall be within the measurement of the initial test, plus or minus 2 inches of water.
5. The permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan and according to the following requirements: (**40 CFR 63.6625(b)(2))**

a. The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635) **(40 FR 63.6625(b)(3)**

b. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger **(40 CFR 63.6625(b)(4)**

c. Conducting the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually. **(40 CFR 63.6625(b)(5))**

d. Conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan. **(40 CFR 63.6625(b)(6)**

**V. TESTING/SAMPLING**

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

1. The permittee shall verify NOx and VOC emission rates from each engine included in FGENGINES2 by testing at owner's expense, in accordance with Department requirements. Testing must be conducted at 100 percent load ±10 percent, once every five years. Engine operating parameters affecting emissions, load calculations, and catalyst performance shall be monitored and recorded during testing to establish normal operating ranges. The operating parameters shall be included in the stack test plan and report. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. In the test plan, the permittee must identify what parameters will be used to denote normal operating ranges as approved by the AQD Technical Programs Unit and the District. 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(1)(a) and (3), R 336.1225, R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the efficiency of each catalytic system in FG-ENGINES2, using CO emission rates as a surrogate, by testing at owner's expense, in accordance with Department requirements. Testing must be conducted at 100% load ±10%, semiannually. Engine operating parameters affecting emissions, load calculations, and catalyst performance shall be monitored and recorded during testing to establish normal operating ranges. The operating parameters shall be included in the stack test plan and report. After two consecutive passing events, the test plan can be changed to annually. If the results of any subsequent annual performance test indicate that an engine in FG-ENGINES2 is not in compliance with the CO or formaldehyde emission limitation, or deviate from the operating limitations, the permittee must resume semiannual performance tests. The performance tests shall be conducted according to 40 CFR 63.6620 and Table 4 of 40 CFR Part 63 Subpart ZZZZ. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. In the test plan, the permittee must identify what parameters will be used to denote normal operating ranges as approved by the AQD Technical Programs Unit and the District. 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(1)(a) and (3), R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.6615, 40 CFR 63.6620, 40 CFR 63.6630, 40 CFR 63.6640, 40 CFR 63 Subpart ZZZZ Tables 3, 4 & 6)**
3. If an engine in FG-ENGINES2 is non-operational the permittee does not need to start up the engine solely to conduct the performance test. The permittee can conduct the performance test when the non-operational engine is started up again.2 **(40 CFR 63.6620(b))**
4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.1213(3))**
5. If the catalyst is changed, the permittee shall reestablish the values of the operating parameters measured during the initial performance test and conduct a subsequent performance test to demonstrate compliance with the applicable emission limitation.  **(40 CFR 63.6640(b))**

**VI. MONITORING/RECORDKEEPING**

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

1. All records shall be completed and made available by the 30th day of each calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.2 **(R 336.1201(3))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a continuous parameter monitoring system (CPMS) to continuously monitor (once every 15 minutes), and record the catalyst inlet temperature of each catalyst in FGENGINES2. The permittee shall then reduce the data to 4-hour rolling averages.2  **(R 336.1225, 40 CFR 63.6625(b), 40 CFR Subpart ZZZZ Table 6)**
2. 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 FGENGINES2 while in operation once per month. The permittee shall keep, in a satisfactory manner, records of the monthly pressure drop measurement for each catalyst.2 **(R 336.1225, 40 CFR 63.6640(a) 40 CFR 63 Subpart ZZZZ Table 6)**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling NOx and VOC emission calculation records for FGENGINES2. The calculated emissions for each calendar month shall be available to the AQD upon request.2  **(R 336.1205 (1)(a) and (3))**
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling CO emission calculation records for FG-ENGINES2. All records shall be made available to the Department upon request.2 **(R 336.1205 (1)(a) and (3), 40 CFR Part 63 Subpart ZZZZ)**
5. The permittee shall keep, in a satisfactory manner, records of all maintenance done on each engine in FG-ENGINES2. All records shall be made available to the Department upon request.2  **(R 336.1225, R 336.1910)**
6. The permittee shall keep, in a satisfactory manner, records of all maintenance done on each catalytic oxidation system for FG-ENGINES2. All records shall be made available to the Department upon request.2 **(R 336.1225, R 336.1910)**
7. The permittee shall keep continuous and 4 hour rolling average records of the inlet temperature of the catalytic oxidizers for FG-ENGINES2. All records shall be made available to the Department upon request.2 **(R 336.1225, R 336.1910, Table 6 in 40 CFR Part 63 Subpart ZZZZ)**
8. The permittee must monitor and collect data according to following: **(40 CFR 63.6635(a))**

a. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the permittee must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 63.6635(b))**

b. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods. **(40 CFR 63.6635(c))**

1. The permittee shall keep the following records:

a. A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart ZZZZ, and the documentation supporting any notification. **(40 CFR 63.6655(a)(1))**

b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(2))**

c.Records of all performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii)) **(40 CFR 63.6655(a)(3)**

d. Records of all required maintenance performed on the air pollution control and monitoring equipment. **(40 CFR 63.6655(a)(4)**

e. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.6655(a)(5)**

f. For each CPMS, records listed below:

**(40 CFR 63.6655(b)(1))**

1. Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); **(40 CFR 63.10 (b)(2)(vi))**
2. 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); **(40 CFR 63.10 (b)(2)(vii))**

iii. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations; **(40 CFR 63.10 (b)(2)(vii))**

iv. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations; **(40 CFR 63.10 (b)(2)(ix))**

v. All CMS calibration checks; **(40 CFR 63.10 (b)(2)(x))**

vi. All adjustments and maintenance performed on CMS; **(40 CFR 63.10 (b)(2)(xi))**

vii. Previous (i.e., superseded) versions of the performance evaluation plan, if the performance evaluation plan is revised. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts. **(40 CFR 63.6655(b)(2))**

viii. For each CEMS or CPMS, requests for alternatives to the relative accuracy test as required in 40 CFR 63.8(f)(6)(i) if applicable. **(40 CFR 63.6655(b)(3))**

11. The permittee shall monitor and record the following critical operating parameters every four hours of engine operation, when the engine is running, on the daily Engine/Compressor log sheets. **(R 336.1213(3))**:

* 1. Engine speed (in revolutions per minute)
  2. Engine torque (in percent)
  3. Air manifold temperature
  4. Air manifold pressure
  5. Ignition Timing

1. The permittee’s records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
2. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**
3. The permittee must keep each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(c))**
4. For each engine in FG-ENGINES2 that is rebuilt, as defined in 40 CFR 94.11(a), the permittee shall keep a record of the total break-in hours. **(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))**

1. 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))**
2. The permittee shall submit all applicable notifications specified in 40 CFR 63.7(b) and (c), 40 CFR 63.8 (e), (f)(4), and (f)(6), and 40 CFR 63.9(b) through (e), (g), and (h) by the dates specified. **(40 CFR 63.6645(a)(3))**
3. The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). **(40 CFR 63.6645(g))**

6. The permittee must submit a semiannual compliance report, as specified in Table 7 of 40 CFR Part 63, Subpart ZZZZ: **(40 CFR 63.6650(a))**

a. The report must contain the following:

i. If there are no deviations from any applicable emission limitations or operating limitations that apply, a statement that there were no deviations during the reporting period. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or **(40 CFR Part 63, Subpart ZZZZ, Table 7.1.a)**

ii. If there was a deviation from any emission limitation or operating limitation during the reporting period, the information in 40 CFR 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), the information in 40 CFR 63.6650(e); or **(40 CFR Part 63, Subpart ZZZZ, Table 7.1.b)**

iii. If there was a malfunction during the reporting period, the information in 40 CFR 63.665(c)(4). **(40 CFR Part 63, Subpart ZZZZ, Table 7.1.c)**

b. The compliance report must contain the following information, as specified in 40 CFR 63.6650(c):

i. Company name and address. **(40 CFR 63.6650(c)(1))**

ii. Certification of the report by a responsible official. **(40 CFR 63.6650(c)(2))**

iii. Date of report and beginning and ending dates of the reporting period.  **(40 CFR 63.6650(c)(3))**

iv. If there was a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction. **(40 CFR 63.6650(c)(4))**

v. If there are no deviations from any emission or operating limitations that apply, a statement that there were no deviations from the emission or operating limitations during the reporting period. **(40 CFR 63.6650(c)(5))**

vi. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period. **(40 CFR 63.6650(c)(6))**

c. If using a CMS, for each deviation from an emission or operating limitation that occurs for each engine in FG-ENGINES2, where a CMS is used to comply with the emission and operating limitations, the semiannual compliance report must contain the following: **(40 CFR 63.6650(e))**

i. The date and time that each malfunction started and stopped. **(40 CFR 63.6650(e)(1))**

ii. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks. **(40 CFR 63.6650(e)(2))**

iii. The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8). **(40 CFR 63.6650(e)(3))**

iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period. **(40 CFR 63.6650(e)(4))**

v. 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. **(40 CFR 63.6650(e)(5))**

vi. 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. **(40 CFR 63.6650(e)(6))**

vii. 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. **(40 CFR 63.6650(e)(7))**

viii. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE. **(40 CFR 63.6650(e)(8))**

ix. A brief description of the stationary RICE. **(40 CFR 63.6650(e)(9))**

x. A brief description of the CMS. **(40 CFR 63.6650(e)(10))**

xi. The date of the latest CMS certification or audit. **(40 CFR 63.6650(e)(11))**

xii. A description of any changes in CMS, processes, or controls since the last reporting period. **(40 CFR 63.6650(e)(12))**

7. The permittee shall report all deviations as defined in 40 CFR Part 63, Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Item 1 of Table 7 in 40 CFR Part 63, Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR Part 63, Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. The permittee may submit the first and subsequent Compliance reports according to the dates specified in SC VII.2 and SC VII.3. **(40 CFR 63.6650(b)(5), 40 CFR 63.6650(f))**

1. 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))**
2. The permittee shall report each instance in which requirements of Table 8 of Subpart ZZZZ are not met. **(40 CFR 63.6640(e))**

**See Appendix 8**

**VIII. STACK/VENT RESTRICTIONS**

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-ENGINE4 | 32.02 | 58.02 | **40 CFR 52.21 (c) & (d)** |
| 2. SV-ENGINE5 | 32.02 | 58.02 | **40 CFR 52.21 (c) & (d)** |
| 3. SV-ENGINE6 | 32.02 | 58.02 | **40 CFR 52.21 (c) & (d)** |

**IX. OTHER REQUIREMENTS**

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

## FG-INDHEATERS1

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Three 10 MMBTU/hr. natural gas fired indirect heaters used to prevent freezing when the natural gas proceeds from the storage reservoir to the pipeline.

**Emission Units:** EU-INDHEATER1, EU-INDHEATER2, EU-INDHEATER3

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 7.1 tpy2 | 12-month rolling, as determined at the end of each calendar month | FG-INDHEATERS1 | SC VI.3 | **R 336.1205(1)** |
| 2. CO | 4.4 tpy2 | 12-month rolling, as determined at the end of each calendar month | FG-INDHEATERS1 | SC VI.3 | **R 336.1205(1)** |

**II. MATERIAL LIMITS**

| **Material** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Natural Gas | 100 million cubic feet2 | 12-month rolling, as determined at the end of each calendar month | FG-INDHEATERS1 | SC VI.2 | **R 336.1205(1)** |

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall keep a record of the gas usage per calendar month for each indirect fired line heater in FG-INDHEATERS1 on file for a period of at least five years and made available to the Air Quality Division upon request.2 **(R 336.1205(1)**
2. The permittee shall calculate and keep, in a format acceptable to the AQD District Supervisor, records of the 12-month rolling the gas usage for FG-INDHEATERS1. **(R 336.1213(3))**
3. The permittee shall calculate and keep, in a satisfactory manner, records of the monthly and 12-month rolling NOx and CO emissions for FG-INDHEATERS1. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed using a method approved by the AQD District Supervisor. (**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 RESTRICTIONS**

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-INDHEATER1 | NA2 | 202 | **40 CFR 52.21(c)&(d)** |
| 2. SV-INDHEATER2 | NA2 | 202 | **40 CFR 52.21(c)&(d)** |
| 3. SV-INDHEATER3 | NA2 | 202 | **40 CFR 52.21(c)&(d)** |

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

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

## FG-INDHEATERS2

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

One10 MMBTU/hr. natural gas fired indirect heaters used to prevent freezing of the pipelines when the pressure of

the natural gas is reduced from the storage reservoir pressure to the pipeline pressure.

**Emission Units:** EU-INDHEATER4

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMITS**

| **Pollutant** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. NOx | 1.8 pph2 | Hourly | EU-INDHEATER4 | SC V.1 | **R 336.1205(1)**  **(a) and (3)** |
| 2. CO | 1.1 pph2 | Hourly | EU-INDHEATER4 | SC V.1 | **R 336.1205(1)**  **(a) and (3)** |

**II. MATERIAL LIMITS**

| **Material** | **Limit** | **Time Period/ Operating Scenario** | **Equipment** | **Monitoring/**  **Testing Method** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- | --- | --- |
| 1. Natural Gas | 67 million standard cubic feet2 | 12-month rolling, as determined at the end of each calendar month | FG-INDHEATERS2 | SC VI.3 | **R 336.1205(1) and (3)**  **R 336.1225**  **R 336.1702(a)**  **40 CFR 52.21 (c) & (d)** |

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall only burn natural gas in FG-INDHEATERS2.2 **(R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

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

Upon request of the AQD District Supervisor, the permittee shall verify NOx and CO emission rates from EUINDHEATER4 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)**

1. If testing is required, the permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor no less than seven days prior to the anticipated test date. **(R 336.2001(4))**

**VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall monitor, in a satisfactory manner, the natural gas use for FG-INDHEATERS2 on a monthly basis.2 **(R 336.1205(1) and (3))**
2. The permittee shall keep, in a satisfactory manner, monthly natural gas use records for FG-INDHEATERS2. All records shall be kept on file for a period of at least five years and made available to the Department upon request.2 **(R 336.1205(1) and (3))**
3. The permittee shall calculate and keep, in a format acceptable to the AQD District Supervisor, records of the 12-month rolling gas usage for FG-INDHEATERS2. **(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 RESTRICTIONS**

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

| **Stack & Vent ID** | **Maximum Exhaust Dimensions**  **(inches)** | **Minimum Height Above Ground**  **(feet)** | **Underlying Applicable Requirements** |
| --- | --- | --- | --- |
| 1. SV-INDHEATER4 | NA2 | 202 | **R 336.1225, 40 CFR 52.21(c) & (d)** |

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

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

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

## FG-MACT 5D LARGE

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Requirements for new 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:**EU-DIRECTHEATER, EU-INDHEATER1, EU-INDHEATER2, EU-INDHEATER3, EU-INDHEATER4

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee must, for boilers or process heaters installed after June 4, 2010, complete an initial tune-up as specified in SC III.2 by no later than 13 months after startup. **(40 CFR 63.7510(g))**
2. 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)**
   1. 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))**
   2. 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))**
   3. 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))**
   4. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
   5. 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))**
3. 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))**
4. 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. 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 must keep a copy of each notification and report that the permittee 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.
4. 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))**
5. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
6. 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))**
7. 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))**
8. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
9. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three 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 orreceived by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked orreceived 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.
5. Company name and address. **(40 CFR 63.7545(f)(1))**
6. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
7. 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))**
8. Type of alternative fuel that the permittee intends to use. **(40 CFR 63.7545(f)(4))**
9. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**
10. 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))**
11. The permittee must submit a compliance report containing the following information.
    1. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
    2. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
    3. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
    4. 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))**
    5. 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))**
12. 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 provisions of the National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters as specified in 40 CFR Part 63, Subparts A and DDDDD. **(40 CFR Part 63, Subparts A and DDDDD)**

## FG-MACT 5D SMALL

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

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

**Emission Units:** EU-P1\_BMBLR1, EU-P1\_BMBLR2, EU-P1\_BMBLR3, EU-P1\_BMBLR4, EU-P2\_BMBLR1, EU-P2\_BMBLR2, EU-P2\_BMBLR3

|  |  |
| --- | --- |
| Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels | EU-P1\_BMBLR1  EU-P1\_BMBLR2  EU-P1\_BMBLR3  EU-P1\_BMBLR4  EU-P2\_BMBLR1  EU-P2\_BMBLR2  EU-P2\_BMBLR3 |
| Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels | NA |

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee must, for boilers or process heaters installed after June 4, 2010 with a heat input capacity of less than or equal to 5 MMBTU/hr, complete an initial tune-up as specified in SC III.3 by no later than 61 months after startup. **(40 CFR 63.7510(g))**
2. The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a five-year tune-up according to 40 CFR 63.7540(a)(12). Each five-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)**
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))**
4. 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. 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))**
5. 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))**
6. 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. **(40 CFR 63.7540(a)(10)(iii))**
7. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
8. 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))**
9. 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))**
10. 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. 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 five-year compliance report or one-time energy assessment, as applicable, 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 five 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 two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining three 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 orreceived by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**

1. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked orreceived by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
2. 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 15th of the year following the applicable five-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) ([www.epa.gov/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))**
3. The permittee must include the following information in the compliance report. **(40 CFR 63.7550(c)(1))**
4. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
5. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
6. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
7. 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 five-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
8. 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)**

## FG-HCTANKS

**FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

Four 29,400-gallon storage tanks. Three of the tanks are used to hold liquid hydrocarbon which has been separated from the natural gas by the desiccant towers during periods of withdrawal. One tank contains a mixture of water and hydrocarbon. These storage tanks are controlled by an enclosed flare or the direct fired heater (EU-DIRECTHEATER).

**Emission Units:** EU-HCTANK1, EU-HCTANK2, EU-HCTANK3, EU-HCTANK4

**POLLUTION CONTROL EQUIPMENT**

Enclosed flare or direct fired heater (EU-DIRECTHEATER)

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall, at all times, maintain and operate the flame sensor for the pilot flame at the flare in accordance with manufacturer recommendations and perform necessary maintenance, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.2 **(R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. During periods of natural gas withdrawal, the flare controlling FG-HCTANKS shall be installed and operating properly.2 **(R 336.1910)**
2. During periods of natural gas withdrawal, the permittee shall operate a continuously burning pilot flame at the flare associated with FG-HCTANKS.2 **(R 336.1225, R 336.1702(a))**

**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. During periods of natural gas withdrawal, the permittee shall continuously monitor the presence of a pilot flame on the flare associated with FGHCTANKS in a manner and with instrumentation acceptable to the AQD District Supervisor.2 **(R 336.1225, R 336.1702(a))**
2. During periods of natural gas withdrawal, the permittee shall record the presence of a pilot flame on the flare associated with FG-HCTANKS on a daily basis in a manner acceptable to the AQD District Supervisor.2 **(R 336.1225, 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 RESTRICTIONS**

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. SVFLARE | NA2 | 292 | **R 336.1225, R 336.1702(a)** |

1. **OTHER REQUIREMENTS**

NA

**Footnotes:**

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

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

## FG-COLDCLEANERS

**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:** EU-COLDCLEANER1, EU-COLDCLEANER2

**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**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

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

2. The permittee shall maintain the following information on file for each cold cleaner: **(R 336.1213(3))**

a. A serial number, model number, or other unique identifier for each cold cleaner.

b. The date the unit was installed, manufactured or that it commenced operation.

c. The air/vapor interface area for any unit claimed to be exempt under Rule 281(2)(h).

d. The applicable Rule 201 exemption.

e. The Reid vapor pressure of each solvent used.

f. If applicable, the option chosen to comply with Rule 707(2).

1. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component, used in each cold cleaner.  The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor.  The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**
2. 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))**
3. 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

## FG-RULE285(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:** EU-RULE285 (mm)

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

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**

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

NA

**VI. MONITORING/RECORDKEEPING**

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

NA

**VII. REPORTING**

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

1. 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))**
2. 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))**
3. 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))**
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 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))**
5. For emergency venting of natural gasin 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).

# E. NON-APPLICABLE REQUIREMENTS

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

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

## Appendix 1. Acronyms and Abbreviations

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

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

## Appendix 2. Schedule of Compliance

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

## Appendix 3. Monitoring Requirements

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

## Appendix 4. Recordkeeping

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

## Appendix 5. Testing Procedures

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

## Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N3391-2017. 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-N3391-2017a is being reissued as Source-Wide PTI No. MI-PTI-N3391-2023.

|  |  |  |  |
| --- | --- | --- | --- |
| **Permit to Install Number** | **ROP Revision**  **Application Number** | **Description of Equipment or Change** | **Corresponding Emission Unit(s) or**  **Flexible Group(s)** |
| NA | 202100215\* | Removing 5, 2 MMBtu/hour boilers (EUP1\_BMBLR1, EUP1\_BMBLR2, EUP1\_BMBLR3, EUP2\_BMBLR1, and EUP2\_BMBLR2) and replacing with five new, Aerco BMK2000, 2 MMBtu/hour boilers. Removal and installations to be completed between September 2021 through December 2021. | FG-MACT 5D SMALL |
| 28-04B | 201900019 | Fix typos for boiler names and EU-INDHEATERS, remove FGENGINES2ZZZZ conditions and replace by incorporating PTI 28-04B, and remove non-applicable FG-INDIRECTHEATERSDDDDD conditions. | EU-INDHEATERS,  FGENGINES2 |

## Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FG-ENGINES1 SC VI.1 and VI.2.



where E *=* pounds per hour maximum NO, emission rate

*% torque =%* torque of engine shaft as monitored by plant   
*% speed = %* speed of engine shaft as monitored by plant

## Appendix 8. Reporting

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

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

**B. Other Reporting**

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

## Appendix 9. Preventative Maintenance Plan

The engines will be operated and maintained by qualified personnel. Annually, the engines will go through a basic

inspection to ensure they are mechanically sound and operating correctly. Each engine will undergo the

appropriate maintenance, as per the Manufacturer’s Commercial Engine Maintenance Schedule. The Maintenance

recommendations and records shall be subject to the review and approval of the AQD District Supervisor.