

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

EFFECTIVE DATE: MARCH 6, 2020

ISSUED TO

**Upper Michigan Energy Resources Corporation  
F.D. Station Kuester Generating Station**

State Registration Number (SRN): P0797

LOCATED AT

80 Eagle Mills Road, Negaunee, Marquette County, Michigan 49866

**RENEWABLE OPERATING PERMIT**

Permit Number: MI-ROP-P0797-2020

Expiration Date: MARCH 6, 2025

Administratively Complete ROP Renewal Application Due Between  
September 6, 2023 and September 6, 2024

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-P0797-2020

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

Michigan Department of Environment, Great Lakes, and Energy

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Ed Lancaster, Marquette District Supervisor

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## AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

## A. GENERAL CONDITIONS

### Permit Enforceability

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

### General Provisions

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

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

## Equipment & Design

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

## Emission Limits

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

The grading of visible emissions shall be determined in accordance with Rule 303.
12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
  - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.<sup>1</sup> **(R 336.1901(a))**
  - b. Unreasonable interference with the comfortable enjoyment of life and property.<sup>1</sup> **(R 336.1901(b))**

## Testing/Sampling

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

## Monitoring/Recordkeeping

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

## Certification & Reporting

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

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

## Permit Shield

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

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

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

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

## Revisions

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

## Reopenings

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



## Renewals

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

## Stratospheric Ozone Protection

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

## Risk Management Plan

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

## Emission Trading

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

## Permit to Install (PTI)

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

### **Footnotes:**

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

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

## **B. SOURCE-WIDE CONDITIONS**

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

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

### C. EMISSION UNIT SPECIAL CONDITIONS

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

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

#### EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EURICE1	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-06-2019	FGENGINES FGENGMACT4Z
EURICE2	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-09-2019	FGENGINES FGENGMACT4Z
EURICE3	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-05-2019	FGENGINES FGENGMACT4Z
EURICE4	A nominally rated 25,828 HP (19,260 kW) natural gas fired reciprocating internal combustion engine with an oxidation catalyst. The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-06-2019	FGENGINES FGENGMACT4Z
EURICE5	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-06-2019	FGENGINES FGENGMACT4Z

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EURICE6	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-06-2019	FGENGINES FGENGMACT4Z
EURICE7	A nominally rated 25,828 HP (19,260 kW) natural gas-fueled reciprocating internal combustion engine (RICE) generator with oxidation catalyst and selective catalytic reduction (SCR). The engines are used to provide electric generation at the F.D. Kuester Generating Station.	02-09-2019	FGENGINES FGENGMACT4Z
EUEMERGEN	A nominally rated 1,470 HP (1,000 kW) natural gas-fueled emergency reciprocating internal combustion engine (RICE) generator manufactured in 2011 or later.	02-12-2019	NA
EUHEATER1	A nominally rated 1.23 MMBtu/hr natural gas-fueled natural gas conditioning heater.	10-16-2018	FGNESHAP5D

**EUEMERGEN  
 EMISSION UNIT CONDITIONS**

**DESCRIPTION**

A nominally rated 1,470 HP (1,000 kW) natural gas-fueled emergency RICE generator manufactured in 2011 or later.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	2.0 g/HP-hr OR 160 ppmvd <sup>2</sup>	Hourly	EUEMERGEN	SC V.1, VI.1, VI.2	<b>40 CFR 52.21(c) &amp; (d) 40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ</b>
2. CO	4.0 g/HP-hr OR 540 ppmvd <sup>2</sup>	Hourly	EUEMERGEN	SC V.1, VI.1, VI.2	<b>40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ</b>
3. VOC	1.0 g/HP-hr OR 86 ppmvd <sup>2</sup>	Hourly	EUEMERGEN	SC V.1, VI.1, VI.2	<b>R 336.1702(b), 40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ</b>

ppmvd = parts per million by volume at 15 percent oxygen and on a dry gas basis

**II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in EUEMERGEN.<sup>2</sup> (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 60.4233)

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

1. No later than 60 days after the initial startup of EUMERGEN, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for EUEMERGEN. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate EUEMERGEN unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
  - a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
  - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
  - c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
  - d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the PM / MAP to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies.<sup>2</sup> **(R 336.1205, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate EUEMERGEN for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes the 100 hours as described in SC III.3.<sup>2</sup> **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
3. The permittee shall not operate EUEMERGEN for more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year.<sup>2</sup> **(40 CFR 60.4243(d)(2))**
4. The permittee may operate EUEMERGEN up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in 40 CFR 60.4243(d)(2). Except as provided in SC III.5, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity.<sup>2</sup> **(40 CFR 60.4243(d)(3))**
5. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - b) The dispatch is intended to mitigate local transmission and/or distribution limitations to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  - c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - d) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching.<sup>2</sup> **(40 CFR 60.4243(d)(3))**
6. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUEMERGEN:
  - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
  - b) May only adjust engine settings according to and consistent with the manufacturer's emission-related written instructions,
  - c) Meet the requirements as specified in 40 CFR 1068 Subparts A through D.

If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine.<sup>2</sup> **(40 CFR 60.4243(b)(1))**

7. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for EUEMERGEN and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.<sup>2</sup> **(40 CFR 60.4243(b)(2))**

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

1. The permittee shall equip and maintain EUEMERGEN with non-resettable hours meters to track the operating hours.<sup>2</sup> **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 60.4237(a))**
2. The nameplate capacity of EUEMERGEN shall not exceed 1,470 HP (1000 kW), as certified by the equipment manufacturer.<sup>2</sup> **(R 336.1205(1)(a) & (3))**

#### **V. TESTING/SAMPLING**

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

1. If EUEMERGEN is purchased as a certified engine but not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
  - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 1 year after EUEMERGEN is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.
  - b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
  - c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> **(R 336.1205, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d), 40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60, Subpart JJJJ)**

See Appendix 5

#### **VI. MONITORING/RECORDKEEPING**

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

1. If EUEMERGEN is a certified engine, the permittee shall keep, in a satisfactory manner, the following records:
  - a) Documentation indicating EUEMERGEN has been maintained according to manufacturer written instructions, is certified to meet the emission standards, and other information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4245(2) & (3))**

2. If EUEMERGEN is a non-certified engine (or operated in a non-certified manner), the permittee shall keep, the following records:
  - a) Testing for the engine, as required in SC V.1;
  - b) Maintenance activities for the engine, as required by SC III.7.

The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> **(40 CFR 60.4243(b), 40 CFR 60.4245(a)(4))**

3. If EUEMERGEN does not meet the standards applicable to non-emergency engines for the applicable size and model year then the permittee shall monitor and record the operation of EUEMERGEN in emergency and non-emergency service that are recorded through the non-resettable hours meter, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document the time of operation of the engine and



the reason the engine was in operation during that time.<sup>2</sup> (R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243(d), 40 CFR 60.4245(b))

4. The permittee shall keep records of notifications submitted for the completion of construction and start-up of EUEMERGEN.<sup>2</sup> (40 CFR 60.4245(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))
4. If EUEMERGEN is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4243(d)(3)(i) the permittee must submit an annual report including the following:
  - a) The company name and address where the engine is located;
  - b) Date of the report and beginning and ending dates of the reporting period;
  - c) Engine site rating and model year;
  - d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place;
  - e) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.<sup>2</sup> (40 CFR 60.4245, 40 CFR Part 60, Subparts A and JJJJ)
5. The permittee shall submit a notification specifying whether each engine included in EUEMERGEN will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation.<sup>2</sup> (R 336.1201(3))

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVEMERGEN	12 <sup>2</sup>	20 <sup>2</sup>	R 336.1225 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to EUEMERGEN.<sup>2</sup> (40 CFR Part 60, Subparts A & JJJJ)

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, as they apply to EUEMERGEN.<sup>2</sup> **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6595)**

**Footnotes:**

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

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

## **EUHEATER1 EMISSION UNIT CONDITIONS**

### **DESCRIPTION**

A nominally rated 1.23 MMBtu/hr natural gas-fueled natural gas conditioning heater.

**Flexible Group ID:** FGNESHAP5D

### **POLLUTION CONTROL EQUIPMENT**

NA

### **I. EMISSION LIMIT(S)**

NA

### **II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in EUHEATER1.<sup>2</sup> **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

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

1. The permittee shall operate EUHEATER1 in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction.<sup>2</sup> **(R 336.1912)**

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

1. The maximum design heat input capacity for EUHEATER1 shall not exceed 2 MMBTU per hour on a fuel heat input basis.<sup>2</sup> **(R 336.1205(1)(a) & (b), R 336.1225, 40 CFR 52.21(c) & (d))**

### **V. TESTING/SAMPLING**

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

NA

### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall complete all required calculations and/or records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> **(R 336.1205, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**
2. The permittee shall keep on file, a demonstration for EUHEATER1 of the design heat input capacity in million Btu of heat input per hour. (i.e., manufacturer's guarantee, test data, etc.)<sup>2</sup> **(R 336.1205(1)(a))**
3. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction of the control equipment, any maintenance performed and any testing results for EUHEATER1. All records shall be kept on file and made available to the Department upon request.<sup>2</sup> **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

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

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVHEATER1	10 <sup>2</sup>	20 <sup>2</sup>	<b>R 336.1225 40 CFR 52.21 (c) &amp; (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all provisions of 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants: Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.<sup>2</sup> **(40 CFR Part 63, Subparts A and DDDDD)**

**Footnotes:**

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

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

## D. FLEXIBLE GROUP SPECIAL CONDITIONS

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

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

### FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGENGINES	Seven (7) non-emergency natural gas-fueled RICE generators equipped with oxidation catalysts and SCR. The engines are used to provide electric generation and are subject to 40 CFR Part 60, Subpart JJJJ.	EURICE1, EURICE2, EURICE3, EURICE4, EURICE5, EURICE6, EURICE7
FGENGMACT4Z	Requirements for RICE subject to the National Emission Standards for Hazardous Air Pollutants 40 CFR Part 63, Subpart ZZZZ.	EURICE1, EURICE2, EURICE3, EURICE4, EURICE5, EURICE6, EURICE7
FGNESHAP5D	Boilers and process heaters subject to Industrial Boiler MACT (Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These new boilers or process heaters must comply with this subpart upon startup).	EUHEATER1

## FGENGINES FLEXIBLE GROUP CONDITIONS

### DESCRIPTION

Seven (7) non-emergency natural gas-fueled RICE generators equipped with oxidation catalysts and SCR. The engines are used to provide electric generation and are subject to 40 CFR Part 60, Subpart JJJJ.

**Emission Units:** EURICE1, EURICE2, EURICE3, EURICE4, EURICE5, EURICE6, EURICE7

### POLLUTION CONTROL EQUIPMENT

Oxidation catalysts to control CO and VOC emissions, and SCR to control NOx.

### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	3.0 pph <sup>2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.1	R 336.1205(1)(a) & (3) 40 CFR 52.21(c) & (d)
2. NO <sub>x</sub>	1.0 g/HP-hr or 82 ppmvd at 15% O <sub>2</sub>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.3	40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ
3. CO	5.5 pph <sup>2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.1	R 336.1205(1)(a) & (3) 40 CFR 52.21(d)
4. CO	2.0 g/HP-hr <sup>a</sup> Or 270 ppmvd at 15% O <sub>2</sub> <sup>a,2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.3	40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ
5. VOC	5.5 pph <sup>2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.1	R 336.1205(1)(a) & (3) R 336.1702(a)
6. VOC	0.7 g/HP-hr <sup>b</sup> or 60 ppmvd at 15% O <sub>2</sub> <sup>b,2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGINES	SC V.3	40 CFR 60.4233(e) Table 1 to 40 CFR Part 60, Subpart JJJJ
7. PM <sub>10</sub>	3.72 pph <sup>2</sup>	Hourly	Each engine in FGENGINES	SC V.1	R 336.1205(1)(a) & (3) 40 CFR 52.21(c) & (d)
8. PM <sub>2.5</sub>	3.72 pph <sup>2</sup>	Hourly	Each engine in FGENGINES	SC V.1	R 336.1205(1)(a) & (3) 40 CFR 52.21(c) & (d)

<sup>a</sup> Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR Part 63, Subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of 40 CFR Part 60, Subpart JJJJ. (i.e. If the engine meets FGENGMACT4Z SC I.1a, then it is in compliance with FGENGINES SC I.4 and 40 CFR 60.4233(e).)

<sup>o</sup> For purposes of this emission limit, when calculating emissions of VOC, emissions of formaldehyde should not be included. (See Table 1 to 40 CFR Part 60, Subpart JJJJ.)

## **II. MATERIAL LIMIT(S)**

1. The permittee shall burn only pipeline quality natural gas in FGENGINES.<sup>2</sup> **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

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

1. No later than 60 days after the initial startup of FGENGINES, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for FGENGINES. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate FGENGINES unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
  - a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
  - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
  - c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
  - d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the plan within 45 days after such an event occurs and submit the revised plan for approval to the AQD District Supervisor. Should the AQD determine the PM / MAP to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies.<sup>2</sup> **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.4243(b)(2))**

2. The permittee shall operate and maintain each engine included in FGENGINES such that it meets the emission limits over the entire life of the engine.<sup>2</sup> **(40 CFR 60.4234)**
3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for FGENGINES:
  - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
  - b) May only adjust engine settings according to and consistent with the manufacturer's emission-related written instructions,
  - c) Meet the requirements as specified in 40 CFR Part 1068, Subparts A through D.

If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine.<sup>2</sup> **(40 CFR 60.4243(b)(1))**

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for FGENGINES and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.<sup>2</sup> **(40 CFR 60.4243(b)(2))**
5. The amount of startup events for each engine in FGENGINES shall not exceed 1,095 startup events per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> **(R 336.1205(3), 40 CFR 52.21(c) & (d))**

6. The amount of shutdown events for each engine in FGENGINES shall not exceed 1,095 shutdown events per 12-month rolling time period as determined at the end of each calendar month.<sup>2</sup> **(R 336.1205(3), 40 CFR 52.21(c) & (d))**

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

1. The nameplate capacity of each engine in FGENGINES shall not exceed 25,828 HP (19,260 kW), as certified by the equipment manufacturer.<sup>2</sup> **(R 336.1205(1)(a) & (3))**

**V. TESTING/SAMPLING**

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

1. The permittee shall verify NOx, CO, VOC, PM10, and PM2.5 emission rates from each unit in FGENGINES at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements. Upon approval of the AQD District Supervisor, subsequent testing may be conducted for a single unit of FGENGINES as a representative unit. The permittee shall not test the same representative unit in subsequent tests unless approved or requested by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

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
PM10/PM2.5	40 CFR Part 51, Appendix M

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> **(R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. The permittee shall verify the NOx, CO, VOC, PM10, and PM2.5 emission rates from FGENGINES, 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. For any engine included in FGENGINES that is a non-certified engine and control device or a certified engine operating in a non-certified manner, per 40 CFR Part 60, Subpart JJJJ, the permittee must demonstrate compliance as follows:
  - a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which the engines in FGENGINES will be operated, but no later than 180 days after initial startup.
  - b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
  - c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years, whichever comes first.

If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> **(40 CFR 60.8, 40 CFR 60.4243, 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60, Subpart JJJJ)**

**See Appendix 5**

**VI. MONITORING/RECORDKEEPING**

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



1. The permittee shall keep all required records and/or calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup>(**R 336.1205(1)(a)&(3), R 336.1225, 40 CFR 52.21 (c) & (d)**)
2. For certified engines in FGEngines, the permittee shall keep, in a satisfactory manner, the following records:
  - a) Documentation indicating that each engine has been maintained according to manufacturer written instructions, is certified to meet the emission standards, and other information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (**R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4245(a)(2)**)

3. For non-certified engines in FGEngines (or operated in a non-certified manner), the permittee shall keep, in a satisfactory manner, the following records:
  - a) Testing for each engine, as required in SC V.2;
  - b) Maintenance activities for each engine, as required by SC III.4.

The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (**R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4245(a)(4)**)

4. The permittee shall keep records of notifications submitted for the completion of construction and start-up of each engine in FGEngines.<sup>2</sup> (**40 CFR 60.4245(a)**)
5. The permittee shall keep, in a satisfactory manner, a record of the monthly and 12-month rolling startup and shutdown events for each engine in FGEngines. The permittee shall keep all records on file and make them available to the Department upon request.<sup>2</sup> (**R 336.1205(3), 40 CFR 52.21(c) & (d)**)
6. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit for each engine in FGEngines. This information shall include, but shall not be limited to the following:
  - a) Compliance tests and any testing required under the special conditions of this permit;
  - b) Monitoring data;
  - c) Total sulfur content of the natural gas;
  - d) Verification of heat input capacity;
  - e) Identification, type, and amount of fuel combusted on a calendar month basis;
  - f) Gross energy output on a calendar month basis;
  - g) Records of each startup and shutdown events;
  - h) All calculations necessary to show compliance with the limits contained in this permit;
  - i) All records related to, or as required by, the MAP.

All of the above information shall be stored in a format acceptable to the AQD District.<sup>2</sup> (**R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.1910, R 336.1912, 40 CFR Part 60, Subpart JJJJ**)

## **VII. REPORTING**

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

4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. If any engine in FGEngines has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
  - a) The date construction of the engine commenced;
  - b) Name and address of the owner or operator;
  - c) The address of the affected source;
  - d) The engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
  - e) The emission control equipment; and
  - f) Fuel used in the engine.

The notification must be postmarked no later than 30 days after construction commenced for each engine.<sup>2</sup>  
**(40 CFR 60.7(a)(1), 40 CFR 60.4245(c))**

6. The permittee shall submit a notification specifying whether each engine included in FGEngines will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation.<sup>2</sup>  
**(R 336.1201(3))**

See Appendix 8

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

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVRICE1-7 (single stack for 7 engines)	167 <sup>2</sup>	130 <sup>2</sup>	<b>R 336.1225 40 CFR 52.21(c) &amp; (d)</b>

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall comply with all applicable provisions of the New Source Performance Standards as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to any engine included in FGEngines.<sup>2</sup> **(40 CFR Part 60, Subpart A and JJJJ)**

**Footnotes:**

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

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

**FGENGMACT4Z  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

New spark ignition RICE located at a Major Source of HAPs greater than 500 HP, non-emergency.

**Emission Units:** EURICE1, EURICE2, EURICE3, EURICE4, EURICE5, EURICE6, EURICE7

**POLLUTION CONTROL EQUIPMENT**

Oxidation catalyst to control CO.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1a. CO	≥93% reduction <sup>2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGMACT4Z	SC V.1	<b>40 CFR 63.6600(b) Table 2a</b>
-OR-					
1b. Formaldehyde	≤14 ppmvd at 15% O <sub>2</sub> <sup>2</sup>	Hourly, excluding periods of startup and shutdown	Each engine in FGENGMACT4Z	SC V.1	<b>40 CFR 63.6600(b) Table 2a</b>

**II. MATERIAL LIMIT(S)**

NA

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

1. The permittee shall not operate any engine of FGENGMACT4Z unless the catalytic oxidation system is installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes the following:
  - a) Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load +/- 10 percent from the pressure drop across the catalysts that was measured during the initial performance test; and
  - b) Maintain the temperature of the exhaust for the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.<sup>2</sup> **(40 CFR 63.6600 (b), Table 2b of 40 CFR Part 63, Subpart ZZZZ)**
2. The permittee shall operate each engine of FGENGMACT4Z in compliance with the emission limitations and operating limitations. Each engine of FGENGMACT4Z, including associated air pollution control equipment and monitoring equipment, must be operated and maintained, in a manner consistent with safety and good air pollution control practices for minimizing emissions.<sup>2</sup> **(40 CFR 63.6605)**
3. The permittee shall minimize the time spent at idle during startup and minimize the startup time of each engine of FGENGMACT4Z to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission limits in SC I.1 apply.<sup>2</sup> **(40 CFR 63.6625(h))**
4. The permittee must reestablish the values of the operating parameters measured during the initial performance test when a catalyst is changed for any engine of FGENGMACT4Z. When the operating parameters are reestablished, the permittee must also conduct a performance test to demonstrate compliance with the emission limits in SC I.1.<sup>2</sup> **(40 CFR 63.6640(b))**

5. The permittee must develop a site-specific monitoring plan that addresses the following items:
  - a) Installation of the CPMS sampling probe or other interface at the appropriate location to obtain representative measurements;
  - b) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;
  - c) Performance evaluation procedures and acceptance criteria (e.g., calibrations);
  - d) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 63.8(c)(1), (c)(3), and (c)(4)(ii);
  - e) Ongoing data quality assurance procedures in accordance with the general requirements of 63.8(d);
  - f) Ongoing data recordkeeping and reporting procedures in accordance with the general requirements of 63.10(c), (e)(1), and (e)(2)(i).<sup>2</sup> **(40 CFR 63.6625(b), Table 8 of 40 CFR Part 63, Subpart ZZZZ)**

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

1. The permittee shall equip and maintain each engine of FGENGMACT4Z with a catalytic oxidation system.<sup>2</sup> **(40 CFR 63.6600 (b), Table 2b)**
2. The permittee shall install, calibrate, operate, and maintain each Continuous Parameter Monitoring System (CPMS) in continuous operation according to the procedures in a site-specific monitoring plan. The CPMS must collect data at least once every 15 minutes when any engine of FGENGMACT4Z is operating.<sup>2</sup> **(40 CFR Part 63.6625(b))**
3. For a CPMS measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8°F or 1 percent of the measured range whichever is larger.<sup>2</sup> **(40 CFR Part 63.6625(b))**
4. If the permittee elects to install a CEMS, the permittee shall install, operate, and maintain a CEMS to monitor CO and either O<sub>2</sub> or CO<sub>2</sub> according to the requirements in 40 CFR Part 63.6625(a). If the permittee is meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and the outlet of the control device. If the permittee is meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.<sup>2</sup> **(40 CFR Part 63.6625(a))**

#### **V. TESTING/SAMPLING**

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

1. The permittee shall verify the formaldehyde emission rates, from each engine included in FGENGMACT4Z, or verify the catalytic system efficiency by utilizing CO emission rates as a surrogate, from each engine included in FGENGMACT4Z, by testing at owner's expense, in accordance with Department requirements. Testing must be conducted at 100 percent speed and load ±10 percent. After initial testing, testing shall be conducted semiannually, until two consecutive semiannual passing events have been demonstrated. After two consecutive passing events, subsequent testing can be changed to annually. If the annual test failed, revert to semiannual testing until two consecutive passing events. If a catalyst is changed for any engine in FGENGMACT4Z the permittee shall also conduct a performance test to demonstrate they are meeting the required emission limitations. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.<sup>2</sup> **(40 CFR 63.6610(a), 40 CFR 63.6615, 40 CFR 63.6620(b), 40 CFR 63.6630(c) 40 CFR 63.6645(g) and (h))**
2. If any non-operational engine in FGENGMACT4Z is subject to performance testing, the engine does not need to be started solely to conduct the performance test. The performance test can be conducted when the engine is started up again.<sup>2</sup> **(40 CFR 63.6620(b))**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted.<sup>2</sup> **(R 336.1213(3))**

**See Appendix 5**

## **VI. MONITORING/RECORDKEEPING**

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

1. The permittee shall continuously monitor, at least once every 15 minutes, the catalyst inlet temperature at all times that any engine for FGENGMACT4Z is operating except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. This monitoring data shall be kept on file at the facility and made available to the Department upon request.<sup>2</sup> **(40 CFR 63.6625(b)(3), 40 CFR 63.6635(b), 63.6660, Table 6 of 40 CFR Part 63, Subpart ZZZZ)**
2. The permittee shall 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.<sup>2</sup> **(40 CFR 63.6635(c))**
3. The permittee shall keep the following records for each engine in FGENGMACT4Z:
  - a) A copy of notification of commencement of construction and initial start-up notification.
  - b) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or of the air pollution control and monitoring equipment.
  - c) Records of catalyst efficiency performance tests and performance evaluations.
  - d) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - e) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

These records shall be kept on file at the facility and made available to the Department upon request.<sup>2</sup> **(40 CFR 63.6655(a))**

4. The permittee shall maintain the following records for each Continuous Monitoring System (CMS):
  - a) Each period during which the CMS malfunctioned or was inoperative (including out-of-control periods);
  - b) The catalyst inlet temperature measurements, including raw data and 4 hour rolling average;
  - c) Thermocouple calibration checks;
  - d) Adjustments and maintenance performed on CMS.

These records shall be kept on file at the facility and made available to the Department upon request.<sup>2</sup> **(40 CFR 63.6655(b))**

5. The permittee shall maintain the following records to demonstrate continuous compliance with the emission limits in SC I.1.:
  - a) Catalyst inlet temperature data reduced to 4-hour rolling averages; and
  - b) Pressure drop across the catalyst measured monthly demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

These records shall be kept on file at the facility and made available to the Department upon request.<sup>2</sup> **(40 CFR 63.6660, 40 CFR 63.6655(d), Table 6 of 40 CFR Part 63, Subpart ZZZZ)**

## **VII. REPORTING**

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

3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. The permittee shall include the following information in each notification of compliance status report:
  - a) The engine model number,
  - b) The engine manufacturer,
  - c) The year of purchase,
  - d) The manufacturer's site-rated brake horsepower,
  - e) The ambient temperature, pressure, and humidity during the performance test,
  - f) The calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. All assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.<sup>2</sup> **(40 CFR 63.6620(i))**
6. The permittee shall report each instance in which they did not meet each emission limitation in SC I.1 or operating limitation in SC III.1. These instances are deviations from the emission and operating limitations in 40 CFR Part 63, Subpart ZZZZ. These deviations must be reported according to the requirements in §63.6650 in the semi-annual compliance report during the period in which they occurred. Deviations that occur during the first 200 hours of operation from initial startup of any engine of FGNGMACT4Z are not violations.<sup>2</sup> **(40 CFR 63.6640(b) & (d))**
7. The permittee shall submit a first semiannual Compliance report which must cover the period beginning on the compliance date that is specified for the affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the start-up. The first Compliance report must be postmarked or delivered no later than September 15 or March 15, whichever date follows the end of the first calendar half after the compliance date that is specified for the start-up date. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.<sup>2</sup> **(40 CFR 63.6650(b), Table 7 of 40 CFR Part 63, Subpart ZZZZ)**
8. The permittee shall include the following information in each Compliance report:
  - a) Company name and address.
  - b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - c) Date of report and beginning and ending dates of the reporting period.
  - d) If a malfunction occurred 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 during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.6605(b), including actions taken to correct a malfunction.
  - e) If there are no deviations from any emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.
  - f) If there were no periods during which the CMS 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.
  - g) If there was a deviation from an emission or operating limitation, the following information must be included.
    - i. The date and time that each malfunction started and stopped.
    - ii. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
    - iii. The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
    - 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.

- 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.
- 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.
- 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.
- viii. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
  - ix. A brief description of the stationary RICE.
  - x. A brief description of the CMS.
  - xi. The date of the latest CMS certification or audit.
  - xii. A description of any changes in CMS, processes, or controls since the last reporting period.<sup>2</sup> **(40 CFR 63.6650(c) & (e))**

See Appendix 8

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

NA

**IX. OTHER REQUIREMENT(S)**

- 1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to any engine included in FGENGMACT4Z.<sup>2</sup> **(40 CFR 63.6595, 40 CFR Part 63, Subparts A and ZZZZ)**

**Footnotes:**

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

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

**FGNESHAP5D  
 FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

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

**Emission Unit:** EUHEATER1

Less than 5 MMBtu/hr	EUHEATER1
Equal to or greater than 5 MMBtu/hr and less than 10 MMBtu/hr	NA
Equal to or greater than 10 MMBtu/hr	NA

**POLLUTION CONTROL EQUIPMENT**

NA

**I. EMISSION LIMIT(S)**

NA

**II. MATERIAL LIMIT(S)**

1. The permittee shall only burn fuels as allowed in the Unit designed to burn “gas 1” subcategory definition in 40 CFR 63.7575.<sup>2</sup> **(40 CFR 63.7499(I))**

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

1. The permittee must meet the requirements in paragraphs (a)(1) and (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) and (e) of 40 CFR 63.7500, stated in SC III.2 and SC III.3. The permittee must meet these requirements at all times the affected unit is operating. **(40 CFR 63.7500(a))**
  - a) The permittee must meet each work practice standard in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler or process heater at the source. **(40 CFR 63.7500(a)(1))**
  - b) At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490, stated in SC IX.1), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.<sup>2</sup> **(40 CFR 63.7500(a)(3))**
2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards.<sup>2</sup> **(40 CFR 63.7500(b))**
3. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR Part 63, Subpart DDDDD, or the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD. Boilers and process heaters in the units designed to burn gas 1 fuel subcategory with a heat input capacity: **(40 CFR 63.7500(e))**
  - a) Of less than or equal to 5 MMBtu per hour must complete a tune-up every 5-years as specified in 40 CFR 63.7540, stated in SC IX.6.<sup>2</sup> **(40 CFR 63.7500(e))**



4. The permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR Part 63, Subpart DDDDD within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7515(d), stated in SC III.5, following the initial compliance date specified in 40 CFR 63.7495(a), stated in SC IX.3. Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d), stated in SC III.5.<sup>2</sup> **(40 CFR 63.7510(g))**
5. If the permittee is required to meet an applicable tune-up work practice standard, the permittee must:
  - a) Conduct the first annual tune-up no later than 13-months after the initial startup of the new or reconstructed boiler or process heater, the first biennial tune-up no later than 25-months after the initial startup of the new or reconstructed boiler or process heater, or the first 5-year tune-up no later than 61-months after the initial startup of the new or reconstructed boiler or process heater.
  - b) Conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.6.a; biennial performance tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.6.b; or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.6.c. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13-months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) must be conducted no more than 25-months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61-months after the previous tune-up.<sup>2</sup> **(40 CFR 63.7515(d))**

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

NA

#### **V. TESTING/SAMPLING**

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

NA

#### **VI. MONITORING/RECORDKEEPING**

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

1. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below.
  - a) 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 semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
  - b) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).<sup>2</sup> **(40 CFR 63.7555(a)(2))**
2. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).<sup>2</sup> **(40 CFR 63.7560(a))**
3. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.<sup>2</sup> **(40 CFR 63.7560(b))**
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3-years.<sup>2</sup> **(40 CFR 63.7560(c))**

#### **VII. REPORTING**

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

2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.3 and SC VII.4, and in Subpart A of 40 CFR Part 63.2 **(40 CFR 63.7495(d))**
5. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified.<sup>2</sup> **(40 CFR 63.7545(a))**
6. As specified in 40 CFR 63.9(b)(4) and (5), if the permittee starts up the new or reconstructed affected source on or after January 31, 2013, the permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source.<sup>2</sup> **(40 CFR 63.7545(c))**
7. If the permittee intends to commence or recommence combustion of solid waste, the permittee must provide 30 days prior notice of the date upon which the permittee will commence or recommence combustion of solid waste. The notification must identify:<sup>2</sup> **(40 CFR 63.7545(g))**
  - a) The name of the owner or operator of the affected source, as defined in 40 CFR 63.7490, stated in SC IX.1, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice. **(40 CFR 63.7545(g)(1))**
8. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies.<sup>2</sup> **(40 CFR 63.7550(a))**
9. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.8, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.6.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.6.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.6.c, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report.<sup>2</sup> **(40 CFR 63.7550(b))**
  - a) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.3, and ending on December 31 after the compliance date that is specified for the source in 40 CFR 63.7495, stated in SC IX.3. When submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1, 2, or 5-years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
  - b) The first semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.3. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
  - c) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1, 2, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
  - d) Each subsequent semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting

period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**

10. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule.<sup>2</sup> **(40 CFR 63.7550(c))**
  - a) If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (xiv), and (xvii) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(1))**
  - b) 40 CFR 63.7550(c)(5) is as follows:
    - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
    - ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
    - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
    - iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.6.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.6.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.6.c. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
    - v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
  
11. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below.<sup>2</sup> **(40 CFR 63.7550(h))**
  - a) The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site <https://www.epa.gov/electronic-reporting-air-emissions/cedri>, once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

See Appendix 8

## VIII. STACK/VENT RESTRICTION(S)

NA

## IX. OTHER REQUIREMENT(S)

1. 40 CFR Part 63, Subpart DDDDD applies to new or reconstructed affected sources as described in paragraph (a)(2) of 40 CFR 63.7490, as listed below.<sup>2</sup> **(40 CFR 63.7490(a))**
  - a) The affected source of 40 CFR Part 63, Subpart DDDDD is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in 40 CFR 63.7575, located at a major source. **(40 CFR 63.7490(a)(2))**
  
2. A boiler or process heater is:
  - a) New if the permittee commences construction of the boiler or process heater after June 4, 2010, and the permittee meets the applicability criteria at the time the permittee commences construction.<sup>2</sup> **(40 CFR 63.7490(b))**
  
3. If the permittee has a new or reconstructed boiler or process heater, the permittee must comply with 40 CFR Part 63, Subpart DDDDD by April 1, 2013, or upon startup of each boiler or process heater, whichever is later.<sup>2</sup> **(40 CFR 63.7495(a))**

4. The permittee must be in compliance with the work practice standards of 40 CFR Part 63, Subpart DDDDD.<sup>2</sup> **(40 CFR 63.7505(a))**
5. For affected sources (as defined in 40 CFR 63.7490, stated in SC IX.1) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.6.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.6.d, for units that are not operating at the time of their scheduled tune-up.<sup>2</sup> **(40 CFR 63.7515(g))**
6. The permittee must demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in paragraphs (a)(10) through (13) of 40 CFR 63.7540, as listed below.<sup>2</sup> **(40 CFR 63.7540(a))**
  - a) If the boiler or process heater has a heat input capacity of 10 MMBtu per hour or greater, the permittee must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. The tune-up must be conducted while burning the type of fuel or fuels in case of units that routinely burn a mixture that provided the majority of the heat input to the boiler or process heater over the 12-months prior to the tune-up. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. **(40 CFR 63.7540(a)(10))**
    - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36-months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
    - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
    - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36-months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
    - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
    - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
    - vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      - (1) The concentrations of CO in the effluent stream in ppm by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      - (2) A description of any corrective actions taken as a part of the tune-up. **40 CFR 63.7540(a)(10)(vi)(B))**
      - (3) The type and amount of fuel used over the 12-months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**
  - b) If the boiler or process heater has a heat input capacity of less than 10 MMBtu per hour (except as specified in paragraph (a)(12) of 40 CFR 63.7540), the permittee must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. **(40 CFR 63.7540(a)(11))**

- c) If the boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 MMBtu per hour and the unit is in the units designed to burn gas 1 subcategory, the permittee must conduct a tune-up of the boiler or process heater every 5-years as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph (a)(10)(i) of 40 CFR 63.7540 until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72-months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5-years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**
  - d) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30-calendar days of startup. **(40 CFR 63.7540(a)(13))**
7. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 applies to the permittee.<sup>2</sup> **(40 CFR 63.7565)**

**Footnotes:**

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

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

## **E. NON-APPLICABLE REQUIREMENTS**

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

## APPENDICES

### Appendix 1. Acronyms and Abbreviations

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

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

**Appendix 2. Schedule of Compliance**

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

**Appendix 3. Monitoring Requirements**

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

**Appendix 4. Recordkeeping**

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

**Appendix 5. Testing Procedures**

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

**Appendix 6. Permits to Install**

The following table lists any Permit to Install and/or Operate, that relates to the identified emission units or flexible groups as of the effective date of this ROP. This includes all Permits to Install and/or Operate that are hereby incorporated into Source-Wide PTI No. MI-PTI-P0797-2020. PTIs issued after the effective date of this ROP, including amendments or modifications, will be identified in Appendix 6 upon renewal.

Permit to Install Number	Description of Equipment	Corresponding Emission Unit(s) or Flexible Group(s)
35-17	Seven (7) non-emergency natural gas-fueled RICE generators equipped with oxidation catalysts and SCR, a nominally rated 1.23 MMBtu/hr natural gas-fueled natural gas conditioning heater, and a nominally rated 1,470 HP (1,000 kW) natural gas-fueled emergency RICE generator manufactured in 2011 or later.	EURICE1, EURICE2, EURICE3, EURICE4, EURICE5, EURICE6, EURICE7, EUHEATER1, EUEMERGEN, FGENGINES, FGENGMACT4Z, FGNESHAP5D

**Appendix 7. Emission Calculations**

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



## **Appendix 8. Reporting**

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

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

### **B. Other Reporting**

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