

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

EFFECTIVE DATE: August 6, 2021
REVISION DATES: August 3, 2022; October 19, 2022

ISSUED TO

The Regents of the University of Michigan

State Registration Number (SRN): M0675

LOCATED AT

1239 Kipke Drive, Ann Arbor, Michigan 48109

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-M0675-2021b

Expiration Date: August 6, 2026

Administratively Complete ROP Renewal Application Due Between
February 6, 2025 and February 6, 2026

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

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-M0675-2021b

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

Scott Miller, Jackson District Supervisor

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	4
A. GENERAL CONDITIONS.....	5
Permit Enforceability	5
General Provisions.....	5
Equipment & Design	6
Emission Limits.....	6
Testing/Sampling	6
Monitoring/Recordkeeping	7
Certification & Reporting	7
Permit Shield	8
Revisions	9
Reopenings.....	9
Renewals.....	10
Stratospheric Ozone Protection	10
Risk Management Plan.....	10
Emission Trading	10
Permit to Install (PTI).....	11
B. SOURCE-WIDE CONDITIONS	12
C. EMISSION UNIT SPECIAL CONDITIONS	13
EMISSION UNIT SUMMARY TABLE.....	13
EUB0260-02	34
EUB0260-06	37
EUI0213-02.....	42
EUT0260-09	46
EUT0260-10	48
EUCPP-CHPHRSG	51
EUB0805-02	59
EUB0805-03	62
EUB550-GEN	65
EUTURBINE.....	67
EUDUCTBURNER.....	70
EUB800-GEN1	72
EUB85-FIREPUMP2.....	74
D. FLEXIBLE GROUP SPECIAL CONDITIONS.....	76
FLEXIBLE GROUP SUMMARY TABLE.....	76
FGB0260-03-04	82
FGBT0260-CO.....	85
FGB5102-01-02	91
FGB5102-03-04	95
FG3GENS-5102	98
FG4GENS-5173	101
FG10DGENS-2MW.....	104
FGBOILERS1A&1B	108
FGBOILERS2&3.....	111
FGBOILERS5&6.....	114
FGB85-EMERGENS.....	117

FGPATHDGENS.....	119
FGCITENGINES.....	123
FGEMERG-III.....	127
FGEMERG-JJJ.....	130
FGZZZZ-CI<500.....	134
FGZZZZ-SI<500.....	138
FGZZZZ-SI>500.....	141
FGZZZZ-CI>500.....	143
FGZZZZ-SI>500 NEW.....	146
FGZZZZ-CI>500 NEW.....	148
FGBLRMACT-LG.....	151
FGBLRMACT-SM.....	155
FGCOLDCLEANERS.....	159
FGRULE287(2)(c).....	161
E. NON-APPLICABLE REQUIREMENTS.....	163
APPENDICES.....	164
Appendix 1. Acronyms and Abbreviations.....	164
Appendix 2. Schedule of Compliance.....	165
Appendix 3. Monitoring Requirements.....	165
Appendix 4. Recordkeeping.....	166
Appendix 5. Testing Procedures.....	166
Appendix 6. Permits to Install.....	166
Appendix 7. Emission Calculations.....	168
Appendix 8. Reporting.....	174

AUTHORITY AND ENFORCEABILITY

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

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

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

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

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

A. GENERAL CONDITIONS

Permit Enforceability

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

General Provisions

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

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

Equipment & Design

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

Emission Limits

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

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

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

Testing/Sampling

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

Monitoring/Recordkeeping

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

Certification & Reporting

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

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
- The applicable requirements are included and are specifically identified in the ROP.
 - 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:
- 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))**
 - 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))**
 - 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.² **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**

Footnotes:

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

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

B. SOURCE-WIDE CONDITIONS

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

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

C. EMISSION UNIT SPECIAL CONDITIONS

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

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

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0260-02	Boiler No. 2 at Central Power Plant (CPP). Rated at 157 MMBTU/hr. heat input on natural gas or No. 2 fuel oil.	1984 (Modification date)	FGBLRMACT-LG
EUB0260-03	Boiler No. 3 at CPP. Rated at 300 MMBTU/hr. heat input on natural gas or No. 2 fuel oil.	1989 (Modification date)	FGB0260-03-04 FGBLRMACT-LG
EUB0260-04	Boiler No. 4 at CPP. Rated at 300 MMBTU/hr. heat input on natural gas or No. 2 fuel oil.	1989 (Modification date)	FGB0260-03-04 FGBLRMACT-LG
EUB0260-06	Boiler No. 6 at CPP. Rated at 376 MMBTU/hr. heat input on natural gas or No. 2 fuel oil back-up capability. Uses low NOx burner system and flue gas recirculation system for control.	1999	FGBLRMACT-LG
EUB0260-07	Boiler No. 7 at CPP. Rated at 55 MMBTU/hr. heat input on natural gas, as heat recovery boiler connected to Gas Turbine No. 9, with supplemental duct burner.	04-15-1997 (Modification date)	FGBT0260-CO
EUB0260-08	Boiler No. 8 at CPP. Rated at 55 MMBTU/hr. heat input on natural gas, as heat recovery boiler connected to Gas Turbine No. 10, with supplemental duct burner.	04-15-1997 (Modification date)	FGBT0260-CO
EUT0260-09	Gas Turbine No. 9 at CPP. Rated at 3.8 MW. Fueled by natural gas or No. 2 fuel oil. Water injection system regulating water-to-fuel ratio is used for control.	09-22-2005 (Modification date)	FGBT0260-CO
EUT0260-10	Gas Turbine No. 10 at CPP. Rated at 3.8 MW. Fueled by natural gas or No. 2 fuel oil. Water injection system regulating water-to-fuel ratio is used for control.	04-03-2003 (Modification date)	FGBT0260-CO

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCPP-CHPHRSG	A combined heat and power unit (CHP) with heat recovery steam generator (HRSG) for a nominal 15.8 MW electricity production. The primary fuel for the turbine is natural gas but it will be capable of firing ultra-low sulfur diesel (ULSD) as a backup fuel. The CTG is Solar Titan 130E with a rating of 190.1 MMBTU/hr (HHV) on natural gas and 173.4 MMBTU/hr (HHV) on ULSD. The HRSG is equipped with a natural gas-fired duct burner rated at 112 MMBTU/hr (HHV) to provide heat for additional steam production. The HRSG is not capable of operating independently from the CTG. The natural gas duct burner shall not operate when diesel fuel is being fired in the turbine. The CTG/HRSG is equipped with dry low NOx combustion technology and SCR.	TBD	NA
EUI0213-02	Mathews Cremation Division IE43-PPI (Power-Pak I) Fuel Type: Natural gas Maximum Charge: 750 Pounds Burn Rate: 150 Pounds/Hour Charge Type: HUMAN REMAINS The crematory is located at Medical Sciences II, Building 0213. A secondary combustion chamber with afterburner is used for control.	05-22-2012 04-26-2016	NA
EUB0805-02	Boiler No. 2 at Hoover Heating Plant (HHP). Boiler No. 3 is a natural gas-fired boiler with No. 2 fuel oil back-up capability, rated at 31.4 MMBTU/hr, heat input, 25,875 lbs. steam /hr.	09-25-2012 (Installation date for natural gas); 02-28-2013 (Installation date for fuel oil)	FGBLRMACT-LG
EUB0805-03	Boiler No. 3 at the HHP. Boiler No. 3 is a natural gas-fired boiler with No. 2 fuel oil back-up capability, rated at 31.4 MMBTU/hr. heat input.	03-13-2007	FGBLRMACT-LG
EUB0805-04	Boiler No. 4 at HHP. Boiler No. 4 is a natural gas-fired boiler with No. 2 fuel oil back-up capability, rated at 19 MMBTU/hr. heat input.	09-01-2015	FGBLRMACT-LG
EUB5102-01	Boiler No. 1 at Brehm Tower, Building 5102, is a 24 MMBTU/hr. natural gas-fired boiler, with diesel oil capability.	11-16-2009	FGB5102-01-02 FGBLRMACT-LG
EUB5102-02	Boiler No. 2 at Brehm Tower, Building 5102, is a 24 MMBTU/hr. natural gas-fired boiler, with diesel oil capability.	11-16-2009	FGB5102-01-02 FGBLRMACT-LG

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB5102-03	Boiler No. 3 at Brehm Tower, Building 5102, is a 10 MMBTU/hr. natural gas boiler.	10-01-2008	FGB5102-03-04 FGBLRMACT-LG
EUB5102-04	Boiler No. 4 at Brehm Tower, Building 5102, is a 10 MMBTU/hr. natural gas boiler.	10-01-2008	FGB5102-03-04 FGBLRMACT-LG
EUGEN-5102-01	Diesel Generator No. 1 is a 750 kW diesel reciprocating internal combustion engine (RICE) generator, of 1141 HP and 7.3 MMBTU/hr heat input, with 2.27 liter displacement per cylinder used for emergency power generation, located at Brehm Tower, Building 5102.	10-10-2006 (Manufacture date)	FG3GENS-5102 FGEMERG-III
EUGEN-5102-02	Diesel Generator No. 1 is a 750 kW diesel RICE generator, of 1141 HP and 7.3 MMBTU/hr heat input, with 2.27 liter displacement per cylinder used for emergency power generation, located at Brehm Tower, Building 5102.	10-10-2006 (Manufacture date)	FG3GENS-5102 FGEMERG-III
EUGEN-5102-03	Diesel Generator No. 1 is a 750 kW diesel RICE generator, of 1141 HP and 7.3 MMBTU/hr heat input, with 2.27 liter displacement per cylinder used for emergency power generation, located at Brehm Tower, Building 5102.	10-10-2006 (Manufacture date)	FG3GENS-5102 FGEMERG-III
EUGEN-5173-01	Diesel Generator No. 1 is a 2.0 MW diesel RICE generator, of 2,919 HP, with 3.76 liters displacement per cylinder used for emergency power generation, located at C.S. Mott Children's and Women's Hospital (C.S. Mott), Building 5173.	10-01-2009 (Manufacture date)	FG4GENS-5173 FGEMERG-III
EUGEN-5173-02	Diesel Generator No. 2 is a 2.0 MW diesel RICE generator, of 2,919 HP, with 3.76 liters displacement per cylinder used for emergency power generation, located at C.S. Mott, Building 5173.	10-01-2009 (Manufacture date)	FG4GENS-5173 FGEMERG-III
EUGEN-5173-03	Diesel Generator No. 3 is a 2.0 MW diesel RICE generator, of 2,919 HP, with 3.76 liters displacement per cylinder used for emergency power generation, located at C.S. Mott, Building 5173.	10-01-2009 (Manufacture date)	FG4GENS-5173 FGEMERG-III
EUGEN-5173-04	Diesel Generator No. 4 is a 2.0 MW diesel RICE generator, of 2,919 HP, with 3.76 liters displacement per cylinder used for emergency power generation, located at C.S. Mott, Building 5173.	10-01-2009 (Manufacture date)	FG4GENS-5173 FGEMERG-III

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUMITC-GEN1	Michigan Academic Computing Center (MACC) Generator No. 1 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the Medical Information Technology Center (MITC) Building.	12-01-2006 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUMITC-GEN2	MACC Generator No. 2 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the MITC Building.	11-18-2006 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUMITC-GEN3	MACC Generator No. 3 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the MITC Building.	11-18-2006 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUCVC-GEN1	CVC Generator No. 1 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the Cardiovascular Center (CVC)	07-01-2006 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUCVC-GEN2	CVC Generator No. 2 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the CVC.	07-01-2006 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUBSRB-GEN1	BSRB Generator 1 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the Biological Sciences Research Building (BSRB).	07-11-2005 (Manufacture date)	FG10DGENS-2MW FGZZZ-CI>500 NEW
EUBSRB-GEN2	BSRB Generator 2 is a 2.0 MW diesel RICE generator, of 2,682 HP, used for emergency power generation, located at the BSRB.	07-01-2005 (Manufacture date)	FG10DGENS-2MW FGZZZ-CI>500 NEW
EUUMH-GEN4	UMH Generator No. 4 is a 2.0 MW diesel RICE generator, of 2,872 HP, used for emergency power generation, located at UMH.	06-01-2000 (Manufacture date)	FG10DGENS-2MW FGZZZ-CI>500
EUMCIT-GEN1	MCIT Generator No. 1 is a 2.0 MW diesel RICE generator, of 2,885 HP, used for emergency power generation, located at the Medical Center Information Technology Building (MCIT).	01-01-2007 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUMCIT-GEN2	MCIT Generator No. 2 is a 2.0 MW diesel RICE generator, of 2,885 HP, used for emergency power generation, located at the MCIT Building.	01-01-2007 (Manufacture date)	FG10DGENS-2MW FGEMERG-III
EUB550-GEN	One (1) 1.5 MW diesel RICE generator, of 2,171 HP (14.71 MMBTU/hr. capacity), used for emergency power generation, located at Building 550, North Campus Research Complex (NCRC).	06-26-2001 (Manufacture date)	FGZZZ-CI>500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB080-GEN	One (1) 250 kW Cummins diesel RICE, of 355 HP, generator used for emergency power generation located at Building 80, NCRC.	04-09-2003 (Manufacture date)	FGZZZZ-CI<500
EUB016-GEN	One (1) 1.0 MW, 1086 HP CAT diesel RICE generator used for emergency power generation located at Building 16, NCRC.	09-11-1990 (Manufacture date)	FGZZZZ-CI>500
EUTURBINE	One (1) cogeneration turbine of 40.1 MMBTU/hr., capacity used for electrical production, located at the NCRC Powerhouse. The turbine is natural gas-fired, with No. 2 fuel oil-firing capability. Exhaust from the turbine can either be sent through the waste heat Boiler No. 4, EUDUCTBURNER, for heat recovery and steam generation or exhausted through a by-pass stack, SVBYPASS.	01-01-1989	NA
EUDUCTBURNER	EUDUCTBURNER provides supplemental heat to waste heat Boiler No. 4. This burner only fires natural gas and is rated at 32 MMBTU/hr. heat input. The duct burner heat combines with the exhaust heat from EUTURBINE to generate additional steam, located at the NCRC Powerhouse.	01-01-1989	NA
EUB800-GEN1	One (1) diesel RICE generator of 2.25 MW capacity for backup electric power generation at NCRC Building 800.	11-01-2006 (Manufacture date)	FGEMERG-III
EUB85-EMERGEN1	NCRC Building 85 Emergency Generator No. 1 is a diesel RICE generator of 2.25 MW, 3,209 HP capacity to provide emergency electrical power.	07-28-2005	FG85-EMERGENS FGZZZZ-CI>500 NEW
EUB85-EMERGEN2	NCRC Building 85 Emergency Generator No. 2 is a diesel RICE generator of 2.25 MW, 3,209 HP capacity to provide emergency electrical power.	07-28-2005	FG85-EMERGENS FGZZZZ-CI>500 NEW
EUPATH-DGEN1	NCRC Pathology 1500 kilowatts (kW) diesel fuel-fired emergency generator with a model year of 2017 and a displacement of 4.3 liters/cylinder.	02-02-2017	FGPATHDGENS FGEMERG-III
EUPATH-DGEN2	NCRC Pathology 1500 kW diesel fuel-fired emergency generator with a model year of 2017 and a displacement of 4.3 liters/cylinder.	02-02-2017	FGPATHDGENS FGEMERG-III

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB85-FIREPUMP2	NCRC Building No. 85 Fire Pump No. 2 is a diesel RICE fire protection pump of 105 HP capacity use to provide backup pumping capabilities to the fire protection system.	10-27-2004	FGZZZZ-CI<500
EUBOILER2	NCRC Boiler No. 2 is a 63.2 MMBTU/hr. natural gas-fired boiler, with No. 2 fuel firing capability, producing 50,000 lbs. steam/hr.	01-01-1959	FGBOILERS2&3 FGBLRMACT-LG
EUBOILER3	NCRC Boiler No. 3 is a 63.2 MMBTU/hr. natural gas-fired boiler, with No. 2 fuel oil firing capability, producing 50,000 lbs. steam/hr.	01-01-1959	FGBOILERS2&3 FGBLRMACT-LG
EUBOILER1A	NCRC Boiler No. 1A is a 19.9 MMBTU/hr. Clayton steam generator, a natural gas-fired boiler with No. 2 fuel oil capability, rated at 19.9 MMBTU/hr, heat input, producing 17,150 lbs. steam/hr.	04-01-1992	FGBOILERS1A&1B FGBLRMACT-LG
EUBOILER1B	NCRC Boiler No. 1B is a 19.9 MMBTU/hr. Clayton steam generator, a natural gas-fired boiler with No. 2 fuel oil capability, rated at 19.9 MMBTU/hr, heat input, producing 17,150 lbs. steam/hr.	04-01-1992	FGBOILERS1A&1B FGBLRMACT-LG
EUBOILER5	NCRC Boiler No. 5 is a 72.0 MMBTU/hr. natural gas-fired boiler, with No. 2 fuel oil capability of 70 MMBTU/hr.	10-25-1999	FGBOILERS5&6 FGBLRMACT-LG
EUBOILER6	NCRC Boiler No. 6 is a 72.0 MMBTU/hr. natural gas-fired boiler, with No. 2 fuel oil capability of 70 MMBTU/hr.	10-25-1999	FGBOILERS5&6 FGBLRMACT-LG
EUCIT01	A 2,682 hp (2000 kW) diesel-fueled emergency engine manufactured in 2020.	TBD	FGCITENGINES FGEMERG-III
EUCIT02	A 2,682 hp (2000 kW) diesel-fueled emergency engine manufactured in 2020.	TBD	FGCITENGINES FGEMERG-III
EUCIT03	A 2,682 hp (2000 kW) diesel-fueled emergency engine manufactured in 2020.	TBD	FGCITENGINES FGEMERG-III
EUAUXSERV	Ford natural gas emergency RICE rated at 45 kW, 60 HP. Located on North Campus at the Auxiliary Service Building.	10-01-1997 (Manufacture date)	FGZZZZ-SI<500
EUBIOMEDENG	GM natural gas emergency RICE rated at 45 kW, 60 HP. Located on North Campus at the Biomedical Engineering Building.	03-07-2005 (Manufacture date)	FGZZZZ-SI<500
EUCOOLEY	Ford natural gas emergency RICE rated at 65 kW, 87 HP. Located on North Campus at Cooley Lab.	12-29-1999 (Manufacture date)	FGZZZZ-SI<500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCSE	Detroit Diesel natural gas emergency RICE rated at 250 kW, 335 HP. Located on North Campus at Computer Science and Engineering. (AKA Beyster)	03-22-2005 (Manufacture date)	FGZZZZ-SI<500
EUDUDER	Ford natural gas emergency RICE rated at 60 kW, 80 HP. Located on North Campus at the Duderstadt Library.	03-18-2005 (Manufacture date)	FGZZZZ-SI<500
EUEECS-880KW	Cummins natural gas emergency RICE rated at 880 kW, 1300 HP. Located on North Campus at the Electrical Engineering and Computer Science.	05-01-2007 (Manufacture date)	FGZZZZ-SI>500 NEW
EUEECS-800KW	Cummins natural gas emergency RICE rated at 800 kW, 1073 HP. Located on North Campus at the Electrical Engineering and Computer Science.	02-20-2007 (Manufacture date)	FGZZZZ-SI>500 NEW
EUFACSERVA	Cummins natural gas emergency RICE rated at 150 kW, 201 HP. Located on North Campus at Facility Services.	08-01-1999 (Manufacture date)	FGZZZZ-SI<500
EUFORDLIB	Ford natural gas emergency RICE rated at 100 kW, 134 HP. Located on North Campus at the Ford Library.	11-10-1999 (Manufacture date)	FGZZZZ-SI<500
EUFXB	Ford natural gas emergency RICE rated at 100 kW, 134 HP. Located on North Campus at the Francis Xavier Bagnoud Building.	03-21-2005 (Manufacture date)	FGZZZZ-SI<500
EUGERST	Ford natural gas emergency RICE rated at 60 kW, 80 HP. Located on North Campus at the Gerstacker Building.	01-28-2011 (Manufacture date)	FGEMERG-JJJJ
EUNCADMIN	John Deere diesel emergency RICE rated at 95 kW, 127 HP. Located on North Campus at the North Campus Administrative Complex.	03-10-2001 (Manufacture date)	FGZZZZ-CI<500
EUNCMICRO	Cummins natural gas emergency RICE rated at 35 kW, 47 HP. Located on North Campus at the Microwave Tower.	12-26-1999 (Manufacture date)	FGZZZZ-SI<500
EUPHOENIX	Ford natural gas emergency RICE rated at 60 kW, 115 HP. Located on North Campus at Phoenix Memorial Lab.	05-29-2008 (Manufacture date)	FGZZZZ-SI<500
EUPRINTGEN	Ford natural gas emergency RICE rated at 45 kW, 60 HP. Located on North Campus at Printing Generator.	02-07-1998 (Manufacture date)	FGZZZZ-SI<500
EUWALGREEN	GM natural gas emergency RICE rated at 150 kW, 225 HP. Located on North Campus at Walgreen Drama Center.	12-30-2006 (Manufacture date)	FGZZZZ-SI<500
EUADMINSERV	Cummins natural gas emergency RICE rated at 500 kW, 671 HP. Located on South Campus at Administrative Services.	09-05-2002 (Manufacture date)	FGZZZZ-SI>500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCSSB	Cummins natural gas emergency RICE rated at 500 kW, 800 HP. Located on South Campus at Campus Safety Service Building.	09-09-2010 (Manufacture date)	FGEMERG-JJJJ
EUFBALL-EAST	Cummins natural gas emergency RICE rated at 500 kW, 965 HP. Located on South Campus at the Football Stadium.	09-17-2008 (Manufacture date)	FGZZZZ-SI>500 NEW
EUFBALL-WEST	Cummins natural gas emergency RICE rated at 625 kW, 701 HP. Located on South Campus at the Football Stadium.	09-17-2008 (Manufacture date)	FGZZZZ-SI>500 NEW
EUPERRY	Ford natural gas emergency RICE rated at 42 kW, 56 HP. Located on South Campus at the Perry Building.	09-01-2005 (Manufacture date)	FGZZZZ-SI<500
EUROSSACAD	Ford natural gas emergency RICE rated at 60 kW, 80 HP. Located on South Campus at the Ross Academic Center.	01-25-2005 (Manufacture date)	FGZZZZ-SI<500
EUSINDUST	Ford natural gas emergency RICE rated at 35 kW, 47 HP. Located on South Campus at S. Industrial.	12-30-1999 (Manufacture date)	FGZZZZ-SI<500
EUWOLVERINE	Cummins natural gas emergency RICE rated at 325 kW, 436 HP. Located on South Campus at Wolverine Tower.	12-26-1999 (Manufacture date)	FGZZZZ-SI<500
EUWOMENGYM	Ford natural gas emergency RICE rated at 60 kW, 80 HP. Located on South Campus Women's Gymnastics facility.	05-30-2002 (Manufacture date)	FGZZZZ-SI<500
EUANNPARK	Cummins natural gas emergency RICE rated at 250 kW, 335 HP. Located on Medical Campus at Ann Street Parking Structure.	12-01-2005 (Manufacture date)	FGZZZZ-SI<500
EUARF	GM natural gas emergency RICE rated at 25 kW, 34 HP. Located on Medical Campus at Animal Research Facility.	10-01-2007 (Manufacture date)	FGZZZZ-SI<500
EUHEALTH	Cummins natural gas emergency RICE rated at 150 kW, 201 HP. Located on Medical Campus at Health Services.	10-01-2005 (Manufacture date)	FGZZZZ-SI<500
EUKELLOGG-UP	Cummins diesel emergency RICE rated at 365 kW, 489 HP. Located on Medical Campus at Kellogg Eye Center.	12-30-1975 (Manufacture date)	FGZZZZ-CI<500
EUMEDSCI2	TOFAS natural gas emergency RICE rated at 20 kW, 27 HP. Located on Medical Campus at MedSci Building 2.	06-12-1996 (Manufacture date)	FGZZZZ-SI<500
EUMSRB-II	Waukesha natural gas emergency RICE rated at 20 KW, 27 HP. Located on Medical Campus at Medical Science Research Building 2.	06-12-1996 (Manufacture date)	FGZZZZ-SI<500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUMSRB-III	Cummins natural gas emergency RICE rated at 500 kW, 671 HP. Located on Medical Campus at Medical Science Research Building 3.	10-01-1999 (Manufacture date)	FGZZZZ-SI>500
EUSIMPSONPKG	Generic natural gas emergency RICE rated at 200 kW, 268 HP. Located on Medical Campus at Simpson Circle Parking Structure.	04-27-2001 (Manufacture date)	FGZZZZ-SI<500
EUUMHGEN1	Caterpillar diesel emergency RICE rated at 1000 kW, 1341 HP. Located on Medical Campus at University Hospital.	12-30-1983 (Manufacture date)	FGZZZZ-CI>500
EUUMHGEN2	Caterpillar diesel emergency RICE rated at 1000 kW, 1341 HP. Located on Medical Campus at University Hospital.	12-30-1983 (Manufacture date)	FGZZZZ-CI>500
EUUMHGEN3	Caterpillar diesel emergency RICE rated at 1000 kW, 1341 HP. Located on Medical Campus at University Hospital.	12-30-1983 (Manufacture date)	FGZZZZ-CI>500
EUUMHHOLDEN	Cummins natural gas emergency RICE rated at 170 kW, 228 HP. Located on Medical Campus UMH Holden.	12-30-1997 (Manufacture date)	FGZZZZ-SI<500
EUUMHMCHC	Cummins diesel emergency RICE rated at 775 kW, 1135 HP. Located on Medical Campus at UMH Maternal and Child Health Care.	04-01-1989 (Manufacture date)	FGZZZZ-CI>500
EUUMHMEDINN	Caterpillar natural gas emergency RICE rated at 150 kW, 201 HP. Located on Medical Campus at University Hospital Med Inn.	01-01-1969 (Manufacture date)	FGZZZZ-SI<500
EUUMHEMBMOTT	Caterpillar diesel emergency RICE rated at 825 kW, 1106 HP. Located on Medical Campus at UMH East Mechanical Building Mott.	01-01-2001 (Manufacture date)	FGZZZZ-CI>500
EUALICELLOYD	ONAN diesel emergency RICE rated at 16.5 kW, 22 BHP. Located on Central Campus at Alice Lloyd Residence Hall.	01-01-1949 (Manufacture date)	FGZZZZ-CI<500
EUCOUZENS	GM natural gas emergency RICE rated at 150 kW, 225 HP. Located on Central Campus at Couzens Residence Hall.	10-12-2010 (Manufacture date)	FGEMERG-JJJJ
EUWESTQUAD	Cummins diesel emergency RICE rated at 350 kW, 60 HP. Located on Central Campus at West Quad Residence Hall.	07-01-2014 (Manufacture date)	FGEMERG-JJJJ
EUCCLITTLE	Ford natural gas emergency RICE rated at 60 kW, 98 HP. Located on Central Campus at CC Little Building.	07-27-2011 (Manufacture date)	FGEMERG-JJJJ
EUCPP	Caterpillar diesel emergency RICE rated at 350 kW, 469 HP. Located on Central Campus at the Central Power Plant.	11-01-1989 (Manufacture date)	FGZZZZ-CI<500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCHURCHST	GM natural gas emergency RICE rated at 35 kW, 47 HP. Located on Central Campus at Church Street Parking Structure.	07-01-1996 (Manufacture date)	FGZZZZ-SI<500
EUHOOKLEGAL	Cummins natural gas emergency RICE rated at 200 kW, 268 HP. Located on Central Campus at Cook Legal Research Library.	04-29-1993 (Manufacture date)	FGZZZZ-SI<500
EUDENNISON	GM natural gas emergency RICE rated at 30 kW, 40 HP. Located on Central Campus at Dennison Building. (AKA Weiser Hall)	10-01-2008 (Manufacture date)	FGZZZZ-SI<500
EUEASTQUAD	Ford natural gas emergency RICE rated at 350 kW, 469 HP. Located on Central Campus at East Quad Residence Hall.	10-03-2001 (Manufacture date)	FGZZZZ-SI<500
EUFLETCHER	WINDSOR natural gas emergency RICE rated at 35 kW, 47 HP. Located on Central Campus at the Fletcher Parking Structure.	08-24-2007 (Manufacture date)	FGZZZZ-SI<500
EUFORDSCHOOL	Detroit Diesel natural gas emergency RICE rated at 255 kW, 342 HP. Located on Central Campus at Ford School – Weill Hall.	12-30-2006 (Manufacture date)	FGZZZZ-SI<500
EUSPH1	Caterpillar natural gas emergency RICE rated at 450 kW, 603 HP. Located on Central Campus at School of Public Health Building 1.	06-27-2005 (Manufacture date)	FGZZZZ-SI>500 NEW
EUSPH2	Cummins natural gas emergency RICE rated at 250 kW, 383 HP. Located on Central Campus at School of Public Health Building 2.	10-07-2008 (Manufacture date)	FGZZZZ-SI<500
EUHATCHER	Cummins natural gas emergency RICE rated at 600 kW, 805 HP. Located on Central Campus at Hatcher Library.	09-01-2006 (Manufacture date)	FGZZZZ-SI>500 NEW
EUHAVEN	Cummins natural gas emergency RICE rated at 325 kW, 436 HP. Located on Central Campus at Haven Hall.	12-30-2001 (Manufacture date)	FGZZZZ-SI<500
EUHILLSTPARK	GM natural gas emergency RICE rated at 35 kW. Located on Central Campus at Hill Street Parking Structure.	11-04-2010 (Manufacture date)	FGEMERG-JJJJ
EUKRESGELIB	Cummins natural gas emergency RICE rated at 215 kW, 288 HP. Located on Central Campus at Kresge Business Administration Library.	06-12-1999 (Manufacture date)	FGZZZZ-SI<500
EULSA	Cummins natural gas emergency RICE rated at 680 kW, 912 HP. Located on Central Campus at Literature Science and Arts Building.	03-09-2005 (Manufacture date)	FGZZZZ-SI>500 NEW
EULSI1	Caterpillar natural gas emergency RICE rated at 1000 kW, 1341 HP. Located on Central Campus at Life Sciences Institute.	06-01-2003 (Manufacture date)	FGZZZZ-SI>500 NEW

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EULSI2	Caterpillar natural gas emergency RICE rated at 1000 kW, 1395 HP. Located on Central Campus at Life Science Institute.	06-01-2003 (Manufacture date)	FGZZZZ-SI>500 NEW
EUMLB	Cummins natural gas emergency RICE rated at 500 kW, 671 HP. Located on Central Campus at Modern Language Building.	09-01-2001 (Manufacture date)	FGZZZZ-SI>500
EUMOJOFOOD	Caterpillar natural gas emergency RICE rated at 240 kW, 384 HP. Located on Central Campus at Mosher Jordan Dining Hall.	2007 (Manufacture date)	FGZZZZ-SI<500
EUNORTHQUAD	Cummins natural gas emergency RICE rated at 625 kW, 965 HP. Located on Central Campus at North Quad Residence Hall.	09-08-2008 (Manufacture date)	FGZZZZ-SI>500 NEW
EUOBSERLODGE	GM natural gas emergency RICE rated at 125 kW, 168 HP. Located on Central Campus at Observatory Lodge. (AKA Kinesiology)	01-31-2002 (Manufacture date)	FGZZZZ-SI<500
EUPALMERCMM	Caterpillar natural gas emergency RICE rated at 675 kW, 905 HP. Located on Central Campus at Palmer Commons.	12-01-2002 (Manufacture date)	FGZZZZ-SI>500
EUPALMERPARK	Cummins natural gas emergency RICE rated at 500 kW, 671 HP. Located on Central Campus at Palmer Drive Parking Structure.	01-30-2002 (Manufacture date)	FGZZZZ-SI>500
EURACKHAM	Ford natural gas emergency RICE rated at 100 kW, 134 HP. Located on Central Campus at Rackham Graduate School.	09-01-2001 (Manufacture date)	FGZZZZ-SI<500
EUROSSBUS1	Cummins natural gas emergency RICE rated at 500 kW, 671 HP. Located on Central Campus at Ross Business School	10-15-2007 (Manufacture date)	FGZZZZ-SI>500 NEW
EUROSSBUS2	Cummins natural gas emergency RICE rated at 800 kW, 1073 HP. Located on Central Campus at Ross Business School.	10-11-2007 (Manufacture date)	FGZZZZ-SI>500 NEW
EURUTHVEN	Cummins natural gas emergency RICE rated at 85 kW, 176 HP. Located on Central Campus at Ruthven Museum.	03-20-2011 (Manufacture date)	FGEMERG-JJJJ
EUSOCIALWK	Ford natural gas emergency RICE rated at 35 kW, 47 HP. Located on Central Campus for School of Social Work.	11-18-1997 (Manufacture date)	FGZZZZ-SI<500
EUSTOCKWELL	Ford natural gas emergency RICE rated at 85 kW, 114 HP. Located on Central Campus at Stockwell Residence Hall.	08-14-2008 (Manufacture date)	FGZZZZ-SI<500

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUSOUTHALL	GM natural gas emergency RICE rated at 150 kW, 225 HP. Located on Central Campus at Law School Academic Building.	09-08-2010 (Manufacture date)	FGEMERG-JJJJ
EUTHAYER	Caterpillar natural gas emergency RICE rated at 450 kW, 603 HP. Located on Central Campus at Thayer Building.	01-01-2005 (Manufacture date)	FGZZZZ-SI>500 NEW
EUTHOMPSONPK	GM natural gas emergency RICE rated at 150 kW, 225 HP. Located on Central Campus Thompson Street Parking Structure.	05-26-2010 (Manufacture date)	FGEMERG-JJJJ
EUUNDERSCI	Caterpillar natural gas emergency RICE rated at 450 kW, 603 HP. Located on Central Campus at the Undergraduate Science Building.	12-30-2004 (Manufacture date)	FGZZZZ-SI>500 NEW
EUWESTHALL	Ford natural gas emergency RICE rated at 100 kW, 134 HP. Located on Central Campus at West Hall.	07-20-2001 (Manufacture date)	FGZZZZ-SI<500
EUWYLYHALL	Ford natural gas emergency RICE rated at 60 kW, 80 HP. Located on Central Campus at Sam Wyly Hall.	07-06-1999 (Manufacture date)	FGZZZZ-SI<500
EUARBORLKS1	Ford natural gas emergency RICE rated at 45 kW, 60 HP. Located on East Campus at Arbor Lakes Building 1.	12-30-1979 (Manufacture date)	FGZZZZ-SI<500
EUARBORLKS2	Cummins diesel emergency RICE rated at 1000 kW, 1341 HP. Located on East Campus at Arbor Lakes Building 1.	12-30-2005 (Manufacture date)	FGZZZZ-CI>500 NEW
EUARBORLKS3	Kohler diesel emergency RICE rated at 450 kW, 630 HP. Located on East Campus at Arbor Lakes Building 1.	Pre-2002 (Manufacture date)	FGZZZZ-CI>500
EUVARSITYDR	Cummins natural gas emergency RICE rated at 600 kW, 805 HP. Located off-campus on Varsity Drive.	07-08-2011 (Manufacture date)	FGEMERG-JJJJ
EUNURSING	Cummins natural gas emergency RICE rated at 35 kW, 57 HP. Located at the School of Nursing.	09-05-2002	FGZZZZ-SI<500
EUNCRC-B075	Cummins natural gas emergency RICE rated at 150 kW; 201 HP. Located at the NCRC Building 75.	01-01-2006	FGZZZZ-SI<500
EUGLENPARKING	Generac natural gas emergency RICE rated at 100 kW, 134 HP. Located at the Glen Ave. Parking Structure.	August 2013	FGEMERG-JJJJ
EUWALLPARKING	Generac natural gas emergency RICE rated at 100 kW, 201 HP. Located at the Wall Street Parking Structure.	01-01-2014	FGEMERG-JJJJ
EUMUSIC	Cummins natural gas emergency RICE rated at 57 kW, 76 HP. Located at the School of Music.	01-01-2014	FGEMERG-JJJJ

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUROSS500KW	Cummins natural gas emergency RICE rated at 500 kW, 670 HP. Located at the Ross School of Business. Blau.	10-01-2015	FGEMERG-JJJJ
EUROSS350KW	Cummins natural gas emergency RICE rated at 350 kW, 469 HP. Located at the Ross School of Business. Blau.	10-01-2015	FGEMERG-JJJJ
EUVARSITY550KW	Cummins natural gas emergency RICE rated at 550 kW, 737 HP. Located at Varsity Drive.	01-21-2015	FGEMERG-JJJJ
EUGGBROWN150KW	Cummins natural gas emergency RICE rated at 150 kW, 201 HP. Located at GG Brown.	12-01-2011	FGEMERG-JJJJ
EUNCACNATGAS	Cummins natural gas emergency RICE rated at 150 kW, 201 HP. Located at the North Campus Administrative Complex.	12-01-2014	FGEMERG-JJJJ
EUBOTGARDEN	Kohler diesel emergency RICE rated at 200 kW, 268 HP. Located at the Matthei Botanical Gardens.	06-01-2008	FGEMERG-III
EULORCH	Kohler natural gas emergency RICE rated at 250 kW; 335 HP. Located at the Lorch Hall.	01-01-2014	FGEMERG-JJJJ
EUGEN-ISR	Cummins natural gas emergency generator RICE rated 450KW. Located Institute of Social Research.	06-07-2013	FGEMERG-JJJJ
EUGENSOUTHQUAD	Cummins natural gas emergency generator RICE rated 550 KW, 850 HP. Located on Central Campus at South Quad residence hall.	10-16-2013	FGEMERG-JJJJ
EUARBORLKS2-45	Onan natural gas emergency generator RICE rated at 45KW, 60 HP. Located on East Campus at Arbor Lakes Building 2.	01-01-1978	FGZZZZ-SI<500
EUBSB-01	Caterpillar natural gas emergency generator RICE rated 725KW. Located Biological Science Building; engine 1.	11-01-2016	FGEMERG-JJJJ
EUBSB-02	Caterpillar natural gas emergency generator RICE rated 725KW. Located Biological Science Building; engine 2.	11-01-2016	FGEMERG-JJJJ
EUROBOTICS	Generac natural gas emergency generator RICE 350KW. Located Ford Robotics Building.	11-01-2018	FGEMERG-JJJJ
EUMEDCTRPARKING	Cummins natural gas emergency generator RICE 60KW. Located Medical Center Drive -Cancer Center.	12-21-2017	FGEMERG-JJJJ
EUMUNGER-02	Kohler natural gas emergency generator RICE 350KW. Located Munger Graduate Residence.	07-24-2014	FGEMERG-JJJJ
EUNCRCB073	Kohler natural gas emergency generator RICE 50KW. Located NCRC Building 73 Parking Structure.	09-24-2019	FGEMERG-JJJJ

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUKRAUS	500 KW natural gas emergency generator RICE. Located at Kraus Building.	04-03-2019	FGEMERG-JJJJ
EUSOUTHPERFORMANCE	Generac natural gas emergency generator RICE 150KW, 225 HP. Located on South Campus at South Performance Center.	02-15-2017	FGEMERG-JJJJ
EUTRAVERWOOD	Cummins natural gas emergency generator RICE 85KW, 114 HP. Located off campus Traverwood Medical Building.	06-01-2004	FGZZZZ-SI<500
EUSHEPARDGYM	Cummins natural gas emergency generator RICE 60KW, 115 HP. Located on South Campus at Shepard Womens Gymnastics Building.	08-03-2001	FGZZZZ-SI<500
EUB0324-01	Boiler 1 at Kellogg Eye Center, Bryan, Heat input of 6 MMBTU/hr, Natural gas.	1983	FGBLRMACT-SM
EUB0324-02	Boiler 2 at Kellogg Eye Center, Bryan, Heat input of 6 MMBTU/hr, Natural gas.	1983	FGBLRMACT-SM
EUB0350-01	Boiler 1 at East Ann Arbor Health Center, Kewanee, Heat input of 3.35 MMBTU/hr Natural gas.	1996	FGBLRMACT-SM
EUB0396-01	Boiler 1 at Media Union, Kewanee, Heat input of 8 MMBTU/hr, Natural gas.	1994	FGBLRMACT-SM
EUB0396-02	Boiler 2 at Media Union, Kewanee, Heat input of 8 MMBTU/hr, Natural gas.	1994	FGBLRMACT-SM
EUB0396-03	Boiler 3 at Media Union, Kewanee, Heat input of 4 MMBTU/hr, Natural gas.	1994	FGBLRMACT-SM
EUB0399-01	Boiler 1 at North Campus Auxiliary Complex, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2002	FGBLRMACT-SM
EUB0399-02	Boiler 2 at North Campus Auxiliary Complex, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2002	FGBLRMACT-SM
EUB0399-03	Boiler 3 at North Campus Auxiliary Complex, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2002	FGBLRMACT-SM
EUB0400-01	Boiler 1 at Auto Eng Lab, Kewanee Classic 3, Heat input of 21 MMBTU/hr, Natural gas.	1985	FGBLRMACT-LG
EUB0400-02	Boiler 2 at Auto Eng Lab, Kewanee Classic 3, Heat input of 21 MMBTU/hr, Natural gas.	1985	FGBLRMACT-LG
EUB0403-01	Boiler 1 at Cooley Lab, Weil-McLain, Heat input of 5 MMBTU/hr, Natural gas.	1997	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0403-02	Boiler 2 at Cooley Lab, Johnston, Heat input of 8 MMBTU/hr, Natural gas.	1988	FGBLRMACT-SM
EUB0403-03	Boiler 3 at Cooley Lab, Johnston, Heat input of 8 MMBTU/hr, Natural gas.	1986	FGBLRMACT-SM
EUB0406-01	Boiler 1 at Advanced Technology Laboratories (A.T.L.), Kewanee, Heat input of 2 MMBTU/hr, Natural gas.	1988	FGBLRMACT-SM
EUB0406-02	Boiler 2 at A.T.L., Kewanee, Heat input of 2 MMBTU/hr, Natural gas.	1988	FGBLRMACT-SM
EUB0406-NEW-1	Boiler 1 at New A.T.L., Cleaver Brooks, Heat input of 5 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB0406-NEW-2	Boiler 2 at New A.T.L., Cleaver Brooks, Heat input of 5 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB0407-LP-01	Low Pressure Boiler 1 at GG Brown Lab, Johnston, Heat input of 16 MMBTU/hr, Natural gas.	2001	FGBLRMACT-LG
EUB0407-LP-02	Low Pressure Boiler 2 at GG Brown Lab, Johnston, Heat input of 16 MMBTU/hr, Natural gas.	2001	FGBLRMACT-LG
EUB0407-LP-03	Low Pressure Boiler 3 at GG Brown Lab, Cleaver Brooks, Heat input of 12.5 MMBTU/hr, Natural gas.	1980	FGBLRMACT-LG
EUB0409-01	Boiler 1 at Fire Instrument and Resident Center, Peerless, Heat input of 3 MMBTU/hr, Natural gas.	1991	FGBLRMACT-SM
EUB0423-01	Boiler 1 at Aerospace Pumping Station, Kewanee, Heat input of 10.5 MMBTU/hr, Natural gas.	1984	FGBLRMACT-LG
EUB0423-02	Boiler 2 at Aerospace Pumping Station, Kewanee, Heat input of 10.5 MMBTU/hr, Natural gas and No. 2 Fuel Oil.	1988	FGBLRMACT-LG
EUB0425-03	Boiler 3 at Aerospace Plasma Research, Johnston, Heat input of 20 MMBTU/hr, Natural gas.	1999	FGBLRMACT-LG
EUB0427-01	Boiler 1 at North Campus Recreation Building, Heat input of 2.0 MMBTU/hr, natural gas	2018	FGBLRMACT-SM
EUB0427-02	Boiler 2 at North Campus Recreation Building, Heat input of 2.0 MMBTU/hr, natural gas	2018	FGBLRMACT-SM
EUB0432-01	Boiler 1 at Art & Architecture, Burnham Boiler, Heat input of 8 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0432-02	Boiler 2 at Art & Architecture, Burnham Boiler, Heat input of 8 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0437-01	Boiler 1 at Gerstacker, Raypak, Heat input of 3 MMBTU/hr, Natural gas.	2001	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0437-02	Boiler 2 at Gerstacker, Raypak, Heat input of 3 MMBTU/hr, Natural gas.	2001	FGBLRMACT-SM
EUB0437-03	Boiler 3 at Gerstacker, Raypak, Heat input of 3 MMBTU/hr, Natural gas.	2001	FGBLRMACT-SM
EUB0437-SB-01	Steam Boiler 1 at Gerstacker, Superior Boiler Works, Heat input of 3 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB0437-SB-02	Steam Boiler 2 at Gerstacker, Superior Boiler Works, Heat input of 5 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB0437-SB-03	Steam Boiler 3 at Gerstacker, Superior Boiler Works, Heat input of 5 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB0439-01	Boiler 1 at Bentley Library, Peerless, Heat input of 1.68 MMBTU/hr.	2004	FGBLRMACT-SM
EUB0439-02	Boiler 2 at Bentley Library, Peerless, Heat input of 1.68 MMBTU/hr.	2004	FGBLRMACT-SM
EUB0440-01	Boiler 1 at School of Music, Superior, Heat input of 5.9 MMBTU/hr, Natural gas.	2009	FGBLRMACT-SM
EUB0440-02	Boiler 2 at School of Music, Superior, Heat input of 2.9 MMBTU/hr, Natural gas.	2009	FGBLRMACT-SM
EUB0440-03	Boiler 3 at School of Music, Superior, Heat input of 5.9 MMBTU/hr, Natural gas.	2009	FGBLRMACT-SM
EUB0441-01	Boiler 1 at Space Research, Johnston, Heat input of 8.73 MMBTU/hr, Natural gas.	1992	FGBLRMACT-SM
EUB0441-02	Boiler 2 at Space Research, Johnston, Heat input of 6 MMBTU/hr, Natural gas.	1992	FGBLRMACT-SM
EUB0512-01	Boiler 1 at Baits 1 Eaton, Heat input of 6 MMBTU/hr, Natural gas.	1965	FGBLRMACT-SM
EUB0512-02	Boiler 2 at Baits 1 Eaton, Heat input of 6 MMBTU/hr, Natural gas.	1965	FGBLRMACT-SM
EUB0515-01	Boiler 1 at Baits Common House, Heat input of 2 MMBTU/hr, Natural gas.	2008	FGBLRMACT-SM
EUB0515-02	Boiler 2 at Baits Common House, Heat input of 2 MMBTU/hr, Natural gas.	2008	FGBLRMACT-SM
EUB0515-03	Boiler 3 at Baits Common House, Heat input of 2 MMBTU/hr, Natural gas.	2008	FGBLRMACT-SM
EUB0515-04	Boiler 4 at Baits Common House, Heat input of 2 MMBTU/hr, Natural gas.	2008	FGBLRMACT-SM
EUB0442-02	Boiler 2 at North Campus (Pierpont) Commons, Heat input of 8 MMBTU/hr, Natural gas.	1996	FGBLRMACT-SM
EUB0442-03	Boiler 3 at North Campus (Pierpont) Commons, Bryan, Heat input of 8 MMBTU/hr, Natural gas.	1996	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0444-01	Boiler 1 at Highway Safety Research, Johnston Fire Tube, Heat input of 2 MMBTU/hr, Natural gas.	2011	FGBLRMACT-SM
EUB0444-02	Boiler 2 at Highway Safety Research, Johnston Fire Tube, Heat input of 2 MMBTU/hr, Natural gas.	2011	FGBLRMACT-SM
EUB0444-03	Boiler 3 at Highway Safety Research, Johnston Fire Tube, Heat input of 2 MMBTU/hr, Natural gas.	2011	FGBLRMACT-SM
EUB0448-01	Boiler 1 at Solid State Engineering Lab, Johnston, Heat input of 6 MMBTU/hr, Natural gas.	2007	FGBLRMACT-SM
EUB0448-02	Boiler 2 at Solid State Engineering Lab, Johnston, Heat input of 6 MMBTU/hr, Natural gas.	2007	FGBLRMACT-SM
EUB0448-03	Boiler 3 at Solid State Engineering Lab, Johnston, Heat input of 5 MMBTU/hr, Natural gas.	2007	FGBLRMACT-SM
EUB0448-04	Boiler 4 at Solid State Engineering Lab, Johnston, Heat input of 5 MMBTU/hr, Natural gas.	2007	FGBLRMACT-SM
EUB0457-01	Boiler 1 at Northwood II-2356 Bishop, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0457-02	Boiler 2 at Northwood II-2356 Bishop, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0460-01	Boiler 1 at Northwood 2204 Cram, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0460-02	Boiler 2 at Northwood II-2204 Cram, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0498-01	Boiler 1 at Northwood III-2150 Cram, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0498-02	Boiler 2 at Northwood III-2150 Cram, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0498-03	Boiler 3 at Northwood III-2150 Cram, Heat input of 2.5 MMBTU/hr, Natural gas.	2012	FGBLRMACT-SM
EUB0555-01	Boiler 1 at Bursley Hall, Heat input of 10.4 MMBTU/hr, Natural gas.	2012 (1965)	FGBLRMACT-LG
EUB0555-02	Boiler 2 at Bursley Hall, Heat input of 10.4 MMBTU/hr, Natural gas.	2012 (1965)	FGBLRMACT-LG
EUB0555-03	Boiler 3 at Bursley Hall, Heat input of 9 MMBTU/hr, Natural gas.	2018 (1965)	FGBLRMACT-SM
EUB0555-04	Boiler 4 at Bursley Hall, Heat input of 9 MMBTU/hr, Natural gas.	2002	FGBLRMACT-SM
EUB0555-05	Boiler 5 at Bursley Hall, Heat input of 9 MMBTU/hr, Natural gas.	2002	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0709-02	Boiler 2 at Yost, Lochinvar, Heat input of 1.8 MMBTU/hr, Natural gas.	1994	FGBLRMACT-SM
EUB0710-01	Heating Boiler at Yost, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	1994	FGBLRMACT-SM
EUB0711-DHWH-1	DHWH 1 at Home Locker Room, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2003	FGBLRMACT-SM
EUB0711-DHWH-2	DHWH 2 at Home Locker Room, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2003	FGBLRMACT-SM
EUB0742-01	Boiler 1 at Campus Safety Services, Peerless, Heat input of 3 MMBTU/hr, Natural gas.	1993	FGBLRMACT-SM
EUB0742-02	Boiler 2 at Campus Safety Services, Peerless, Heat input of 3 MMBTU/hr, Natural gas.	1993	FGBLRMACT-SM
EUB0799-01	Boiler 1 at Buhr Building, Johnston, Heat input of 2.5 MMBTU/hr, Natural gas.	1998	FGBLRMACT-SM
EUB0799-02	Boiler 2 at Buhr Building, Johnston, Heat input of 5 MMBTU/hr, Natural gas.	1998	FGBLRMACT-SM
EUB0812-01	Boiler 1 at Varsity Drive, Heat input of 2.7 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB0812-02	Boiler 2 at Varsity Drive, Heat input of 2.7 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB0812-03	Boiler 3 at Varsity Drive, Heat input of 2.7 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB0816-01	Boiler 1 at Mail Services, Weil-McLain, Heat input of 2 MMBTU/hr, Natural gas.	1989	FGBLRMACT-SM
EUB0831-01	Boiler 1 at Argus II, Cleaver-Brooks, Heat input of 5 MMBTU/hr, Natural gas.	1982	FGBLRMACT-SM
EUB0831-02	Boiler 2 at Argus II, Cleaver-Brooks, Heat input of 8 MMBTU/hr, Natural gas.	1982	FGBLRMACT-SM
EUB0857-01	Boiler 1 at Oxford Housing, Heat input of 4 MMBTU/hr, Natural gas.	1962	FGBLRMACT-SM
EUB0857-02	Boiler 2 at Oxford Housing, Heat input of 4 MMBTU/hr, Natural gas.	1962	FGBLRMACT-SM
EUB0890-01	Boiler 1 at Perry School, Patterson Kelly, Heat input of 2 MMBTU/hr, Natural gas.	2001	FGBLRMACT-SM
EUB0890-02	Boiler 2 at Perry School, Patterson Kelly, Heat input of 2 MMBTU/hr, Natural gas.	2001	FGBLRMACT-SM
EUB0890-03	Boiler 3 at Perry School, Patterson Kelly, Heat input of 2 MMBTU/hr, Natural gas.	2004	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB0982-01	Boiler 1 at Botanical Gardens, Johnson, Heat input of 5 MMBTU/hr, Natural gas.	2004	FGBLRMACT-SM
EUB0982-02	Boiler 2 at Botanical Gardens, Johnson, Heat input of 5 MMBTU/hr, Natural gas.	2004	FGBLRMACT-SM
EUB0982-03	Boiler 3 at Botanical Gardens, Johnson, Heat input of 5 MMBTU/hr, Natural gas.	2004	FGBLRMACT-SM
EUB2501-01	Boiler 1 at Auxiliary Services, Burnham, Heating input of 2 MMBTU/hr, Natural gas.	1985	FGBLRMACT-SM
EUB5038-01	Heating Boiler 1 at East Ann Arbor Health Center Ambulatory Surgery, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5038-02	Heating Boiler 2 at East Ann Arbor Health Center Ambulatory Surgery, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5038-DHWH-1	DHWH 1 at East Ann Arbor Health Center Ambulatory Surgery, Lochinvar, Heat input of 3 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5038-DHWH-2	DHWH 2 at East Ann Arbor Health Center Ambulatory Surgery, Lochinvar, Heat input of 3 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5092-01	Boiler 1 at Computer Science and Engineering, Unilux, Heat input of 2 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5092-02	Boiler 2 at Computer Science and Engineering, Unilux, Heat input of 2 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5092-03	Boiler 3 at Computer Science and Engineering, Unilux, Heat input of 2 MMBTU/hr, Natural gas.	2005	FGBLRMACT-SM
EUB5059-01	Boiler 1 at Walgreen Drama Center, Fulton, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5059-02	Boiler 2 at Walgreen Drama Center, Fulton, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5059-03	Boiler 3 at Walgreen Drama Center, Fulton, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5059-04	Boiler 4 at Walgreen Drama Center, Fulton, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5059-DHWH-05	Boiler 5 at Walgreen Drama Center, Clayton, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUB5117-01	Boiler 1 at Rachel Upjohn Building, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5117-02	Boiler 2 at Rachel Upjohn Building, Lochinvar, Heat input of 2 MMBTU/hr, Natural gas.	2006	FGBLRMACT-SM
EUB5283-01	Boiler 1 at NCRC Bldg. 800/Chiller Plant, Bryan, Heat input of 2 MMBTU/hr, Natural gas.	2000	FGBLRMACT-SM
EUB5347-01	Boiler 1 at School of Nursing, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB5347-02	Boiler 2 at School of Nursing, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB5347-03	Boiler 3 at School of Nursing, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB5369-01	Boiler 1 at Munger Graduate School, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB5369-02	Boiler 2 at Munger Graduate School, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB5369-03	Boiler 3 at Munger Graduate School, Heat input of 2.5 MMBTU/hr, Natural gas.	2015	FGBLRMACT-SM
EUB8081-2-01	Boiler 1 at Arbor Lakes 2, Bryan, Heat input of 2 MMBTU/hr, Natural gas.	1977	FGBLRMACT-SM
EUB8090-01	Boiler 1 at Wolverine Tower, Lochinvar, Heat input of 2.5 MMBTU/hr, Natural gas.	2013	FGBLRMACT-SM
EUB8090-02	Boiler 2 at Wolverine Tower, Lochinvar, Heat input of 2.5 MMBTU/hr, Natural gas.	2013	FGBLRMACT-SM
EUB8090-03	Boiler 3 at Wolverine Tower, Lochinvar, Heat input of 2.5 MMBTU/hr, Natural gas.	2013	FGBLRMACT-SM
EUB8090-04	Boiler 4 at Wolverine Tower, Lochinvar, Heat input of 2.5 MMBTU/hr, Natural gas.	2013	FGBLRMACT-SM
EUB5399-01	Boiler 1 at State S. Complex, Heat input of 4 MMBTU/hr, Natural gas.	2016	FGBLRMACT-SM
EUB5399-02	Boiler 2 at State S. Complex, Heat input of 4 MMBTU/hr, Natural gas.	2016	FGBLRMACT-SM
EUB5399-03	Boiler 3 at State S. Complex, Heat input of 4 MMBTU/hr, Natural gas.	2016	FGBLRMACT-SM
EUB5418-01	Boiler 1, Fulton, at Ford Robotics Bldg., Heat input of 2.5 MMBTU/hr, natural gas.	11-05-2019	FGBLRMACT-SM
EUB5418-02	Boiler 2, Fulton, at Ford Robotics Bldg., Heat input of 2.5 MMBTU/hr, natural gas.	11-05-2019	FGBLRMACT-SM

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUCOLISEUM	Cleaver Brook (M-449876) at Coliseum, Heat input of 2 MMBTU/hr, natural gas.	11-14-2019	FGBLRMACT-SM
EUHEAVY-CC-01	Cold cleaner 1 located at Heavy Equipment; model 300.	2000	FGCOLDCLEANERS
EUHEAVY-CC-02	Cold cleaner 2 located at Heavy Equipment; model 300.	2000	FGCOLDCLEANERS
EUBLUEGC-CC	Cold cleaner located at Blue Golf Course; model 17 4R.	1995	FGCOLDCLEANERS
EURADRICK-CC	Cold cleaner located at Radrick Farm Golf Course; Zep model 915301.	2004	FGCOLDCLEANERS
EUTRANSPO-CC-01	Cold cleaner located at Transportation; System one model 500.	2000	FGCOLDCLEANERS
EUTRANSPO-CC-02	Cold cleaner located at Transportation; Systems one model 300.	2000	FGCOLDCLEANERS
EUWILSON-CC	Cold cleaner located at Wilson Center; Model 30 3R.	2003	FGCOLDCLEANERS
EUCPP-CC	Cold cleaner located at the Central Power Plant; model 65.	2004	FGCOLDCLEANERS
EUPAINTPLANTOPs	Paint booth located at Plant Operations.	1990	FGRULE287(2)(c)
EUPAINTTRANSPO	Paint booth located at Transportation Services.	1968	FGRULE287(2)(c)
EUPAINTPRINTING	Printing services located on north campus.	1999	FGRULE287(2)(c)
EUPAINTWILSON	Paint booth located at Wilson Center on North Campus.	1999	FGRULE287(2)(c)
EUPRINTING	Canon 7010 VP toner digital press.	2012	FGRULE287(2)(c)

**EUB0260-02
EMISSION UNIT CONDITIONS**

DESCRIPTION

Boiler No. 2 at CPP. Rated at 157 MMBTU/hr. heat input on natural gas or No. 2 fuel oil.

Flexible Group ID: FGBLRMACT-LG

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO ₂	SO ₂ emission rate from the one boiler when firing No. 2 fuel oil shall not exceed 0.56 lbs./MMBTU heat input, based upon a 24-hr. period. ²	24-hour period (lbs./MMBTU)	EUB0260-02	SC VI.1 – VI.4	R 336.1401
	This is equivalent to using No. 2 fuel oil with a 0.5% sulfur content and a heat value of 18,000 BTU's/lb. ²	Instantaneous (%S)			
2. NO _x	0.30 lbs./MMBTU heat input from the one boiler when firing No. 2 fuel oil, based on a 24-hr. averaging period. ²	24-hour period	EUB0260-02	SC V.1	40 CFR 52.21 (c) and (d)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
3. NOx	0.20 lbs./MMBTU heat input from the one boiler when firing natural gas, based on a 24-hr. averaging period. ²	24-hour period	EUB0260-02	SC V.1	40 CFR 52.21 (c) and (d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas and /or No. 2 fuel oil in EUB0260-02. **(R 336.1213(2))**

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))**

NOx

1. The permittee shall verify NOx emission rates from EUB0260-02 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the NOx emission rates from EUB0260-02, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the fuel oil usage in EUB0260-02 on a daily basis in a manner and with instrumentation acceptable to the AQD.² **(40 CFR 52.21)**
2. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(40 CFR 52.21)**

3. The permittee shall monitor the density, sulfur and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Central Power Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(40 CFR 52.21)**
4. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in EUB0260-02, demonstrating that the fuel sulfur content meets the requirement of SC I.1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**

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))**

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. SV-B2060-01	168 ²	North Stack: 250 ft. above a stack base elevation of 859 ft. ²	R 336.1225, R 336.2803, R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to EUB0260-06. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**EUB0260-06
 EMISSION UNIT CONDITIONS**

DESCRIPTION

EUB0260-06 is Boiler No. 6 at the CPP. Boiler No. 6 is a natural gas-fired boiler with No. 2 fuel oil back-up capability, originally installed in 1999, with a capacity of 376 MMBTU/hr. heat input.

Flexible Group ID: FGBLRMACT-LG

POLLUTION CONTROL EQUIPMENT

Low NOx burner system and flue gas recirculation.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	20% opacity (6-minute average), while burning fuel oil, except for one 6-minute period per hour of not more than 27 percent opacity. ² This opacity standard applies at all times, except during periods of startup, shutdown or malfunction.	6-minute average	EUB0260-06	SC VI.1	40 CFR Part 60, Subpart Db 40 CFR 60.43b(f) and (g)
2. NOx	The NOx emission rate shall not exceed 0.10 lbs./MMBTU heat input, nor 36.0 lbs./hr., based on a 24-hr. rolling time period. ²	Hourly, determined on a 24-hour rolling time period	EUB0260-06	SC VI.2	40 CFR Part 60, Subpart Db 40 CFR 60.44b 40 CFR 52.21(j)
3. NOx	The total combined NOx emission rate shall not exceed 88.3 tons per 12-month rolling time period. ²	12-month rolling time period. See Appendix 7	EUB0260-06	SC VI.7	40 CFR 52.21(j)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
4. SO2	<p>The SO2 emission rate shall not exceed 0.30 lbs./MMBTU heat input, and 108.0 lbs./hr., both based on a 24-hr. rolling time period.²</p> <p>-----</p> <p>This is equivalent to using fuel oil with a 0.30% sulfur content and a heat value of 141,200 BTU/gal.²</p>	<p>24-hour rolling time period</p> <p>-----</p> <p>Instantaneous (%S)</p>	EUB0260-06	SC VI.3 -VI.6	<p>R 336.1401 40 CFR Part 60 Subpart Db 40 CFR 60.45b</p>
5. SO2	<p>The total combined SO2 emission rate shall not exceed 38.6 tons per 12-month rolling time period.²</p>	<p>12-month rolling time period.</p> <p>See Appendix 7</p>	EUB0260-06	SC.VI.7	<p>R 336.1401</p>
6. VOC	<p>The VOC emission rate shall not exceed 0.025 lbs./MMBTU heat input and 9.4 lbs./hr., based on a 24-hr. rolling time period.²</p>	Hourly	EUB0260-06	SC V.1 – V.3	<p>40 CFR 52.21(j)</p>
7. VOC	<p>The total combined VOC emission rate shall not exceed 41.2 tons per 12-month rolling time period.²</p>	<p>12-month rolling time period</p> <p>See Appendix 7</p>	EUB0260-06	SC VI.7	<p>40 CFR 52.21(j)</p>
8. CO	<p>The CO emission rate while firing fuel oil shall not exceed 0.15 lbs/MMBTU heat input, and 54.0 lbs/hr²</p>	Hourly	EUB0260-06	SC V.1 – V.3	<p>40 CFR 52.21(j)</p>
9. CO	<p>The CO emission rate while firing natural gas shall not exceed 0.10 lbs./MMBTU heat input, and 37.6 lbs./hr.²</p>	Hourly	EUB0260-06	SC V.1 – V.3	<p>40 CFR 52.21(j)</p>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
10. CO	The total combined CO emission rate shall not exceed 170.3 tons per 12-month rolling time period. ²	12-month rolling time period. See Appendix 7	EUB0260-06	SC VI.7	40 CFR 52.21(j)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas and/or No. 2 fuel oil in EUB0260-06.² **(40 CFR 52.21(j))**
2. The permittee shall not exceed a maximum No. 2 fuel oil firing rate of 1,774,286 gallons per 12-month rolling time period as determined by the tenth day of each calendar month in EUB0260-06.² **(40 CFR 52.21(j))**
3. The permittee shall not operate EUB0260-06 unless the associated low NOx burner system and flue gas recirculation system is installed and operating properly.² **(40 CFR Part 60, Subpart Db, 40 CFR 60.44b)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify VOC and CO emission rates from EUB0260-06 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

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

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the VOC and CO emission rates from EUB0260-06, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. Opacity: The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system when burning fuel oil, according to the requirements of 40 CFR 60.48b, and shall collect and maintain records of such monitoring in accordance with 40 CFR 60.49b.² **(40 CFR 60.48b, 40 CFR 60.49b)**
2. NOx: The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the NOx emissions discharged to the atmosphere and record the output of the system, according to the requirements of 40 CFR 60.48b, and shall collect and maintain records of such monitoring in accordance with 40 CFR 60.49b; except that data shall be collected and reported on the basis of a 24-hour rolling average emission rate as specified by 40 CFR 52.21(j).² **(40 CFR 52.21(j), 40 CFR 60.48b, 40 CFR 60.49b)**
3. The permittee shall monitor and record the fuel oil usage in EUB0260-06 on a daily basis in a manner and with instrumentation acceptable to the AQD.² **(R 336.1401)**
4. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(R 336.1401)**
5. The permittee shall monitor the density, sulfur and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Central Power Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(R 336.1401)**
6. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in EUB0260-06, demonstrating that the fuel sulfur content meets the requirement of SC I.4. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**
7. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling total NOx, SO₂, VOC and CO mass emissions for EUB0260-06, when firing on fuel oil and when firing on natural gas. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed using the methods included in Appendix 7 unless a new method is approved by the District Supervisor. **(R 336.1213(3))**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. Semiannual reporting of excess NOx emissions during either natural gas firing or fuel-oil firing modes, and/or excess opacity emissions during fuel-oil firing mode pursuant to 40 CFR Part 60, Subpart Db (40 CFR 60.40b, 60.43b, 60.44b, 60.46b, 60.48b, and specifically 60.49b(h)(2)(ii) and (h)(3) and (h)(4)), where no excess emissions occurred during the calendar quarter. **(40 CFR 60.40b, 60.43b, 60.44b, 60.46b, 60.48b, 60.49b(h)(2)(ii), h(3) and h(4))**

6. Quarterly reporting of excess NOx emissions during either natural gas firing or fuel-oil firing modes, and/or excess opacity emissions during fuel-oil firing mode for any calendar quarter during which there are excess emissions from EUB0260-06, as defined in 40 CFR 60.49b(h)(3) and (h)(4), except that instead of a 30-day rolling average NOx emission rate, a 24-hour rolling average NOx emission rate shall be calculated and reported as required by 40 CFR 52.21(j).² **(40 CFR 60.49b(h)(3) and (h)(4), 40 CFR 52.21(j))**

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. SV-B0260-02	120 ²	South Stack: 159 ft. above a stack base elevation of 873 ft. ²	R 336.1224, 40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for New Stationary Sources for Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subpart A and Db. **(40 CFR Part 60, Subparts A and Db)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to EUB0260-06. **(40 CFR Part 63, Subparts A and DDDDD)**
3. The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). **(40 CFR Part 96, Subpart H)**

Footnotes:

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

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

**EUI0213-02
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUI0213-02 is a Matthews Cremation Division model IE43-PPI (Power-Pak I) human crematory incinerator, natural gas-fired, 750 lbs. maximum capacity, 150 lbs./hr. burn rate located at the Medical Sciences II Building 0213.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Secondary combustion chamber with afterburner.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. PM	0.20 lb /1,000 lbs of gas, corrected to 50% excess air. ²	Hourly	EUI0213-02	SC V.1 SC VI.1 - VI.6	R 336.1331

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Waste	<p>The permittee shall not burn any waste in EUI0213-02 other than the following:</p> <p>Pathological wastes—As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding. This permit applies to HUMAN pathological waste and associated materials.</p> <p>Gross Anatomy Lab waste – Gross Anatomy Lab waste means waste materials that have come into contact with the pathological waste kept within the Gross Anatomy Lab.</p>	Instantaneous	EUI0213-02	SC V.1	40 CFR 60.51c 40 CFR 60.2887, 40 CFR 60.2977

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
	<p>For pathological waste incinerators, pathological waste shall be 90 percent or more, by weight, in aggregate, of the total waste burned in EUI0213-02 as measured on a calendar quarter basis. Appendix B contains the pathological waste incineration unit exemption from 40 CFR 60.2887 and the full definition for Pathological waste from 40 CFR 60.2977.²</p>				
2. Fuel	The permittee shall not burn any supplemental fuel in EUI0213-02 other than natural gas. ²	Instantaneous	EUI0213-02	NA	<p>R 336.1224 R 336.1225 R 336.1702 R 336.1901</p>

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not charge more than 750 pounds per charge in EUI0213-02, where charge is the total weight of the material placed in the incinerator to be combusted.² **(R 336.1301, R 336.1331, R 336.1901)**
2. The permittee shall not combust waste in EUI0213-02 unless a minimum temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained.² **(R 336.1301, R 336.1331, R 336.1910)**
3. The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EUI0213-02. A list of recommended operating and maintenance procedures is specified in Section IX. OTHER REQUIREMENTS.² **(R 336.1301, R 336.1331, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUI0213-02 on a continuous basis.² **(R 336.1301, R 336.1331, R 336.1910)**
2. The permittee shall maintain a scale at the facility, for the purpose of verifying the charge weight as required by SC II.2.² **(R 336.1301, R 336.1331, R 336.1901)**
3. The permittee shall not operate EUI0213-02 unless the secondary combustion chamber with afterburner is installed, maintained, and operated in a satisfactory manner.² **(R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Upon request of the AQD District Supervisor or if abnormal/excessive smoke persist following any abatement/repair actions required by SC VI.6, the permittee shall perform a certified visible emissions reading, as a surrogate for PM, according to EPA Method 9. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, R 336.1901, R 336.2001)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the temperature in the secondary combustion chamber of EUI0213-02 on a continuous basis.² **(R 336.1301, R 336.1331, R 336.1901)**
2. The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description and weight of waste combusted in EUI0213-02, as required by SC II.1 and SC III.1. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205, 40 CFR 60.2887, 40 CFR 60.2977)**
3. The permittee shall calculate the weight percent of pathological waste burned in EUI0213-02, as required by SC II.1, on a calendar quarter basis. All records shall be kept on file and made available to the Department upon request.² **(40 CFR 60.2887)**
4. The permittee shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EUI0213-02, as required by SC VI.1. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, R 336.1901)**
5. The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for EUI0213-02. The record shall include the description, reason, date and time of the service, maintenance or inspection. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, R 336.1910)**
6. The permittee shall perform an uncertified visible emissions reading at least once per operating day, to determine the presence of abnormal/excessive smoke. Abnormal conditions shall trigger initiation of abatement/repair actions. A record shall be made of all readings. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1301, R 336.1331, R 336.1901, 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))**

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. SV-I0213-02	20 ²	100 ²	R 336.1901 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

Incinerator Operation and Maintenance Guidelines

1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements.² **(R 336.1201(3))**
2. Clean grates/hearth before each day's operation (more often if necessary) and dispose of the ashes properly.² **(R 336.1201(3))**
3. Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle.² **(R 336.1201(3))**
4. Do not overload the incinerator. Stay within the given loading rates and follow the manufacturer's instructions.² **(R 336.1201(3))**
5. Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire causing smoke.² **(R 336.1201(3))**
6. Burn only the type of wastes that the incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste(s).² **(R 336.1201(3))**
7. Keep the combustion air adjusted according to the manufacturer's instructions.² **(R 336.1201(3))**
8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash.² **(R 336.1201(3))**
9. Post a copy of the manufacturer's manual and this Guideline near the incinerator.² **(R 336.1201(3))**
10. Make quarterly inspections to check and service all of the equipment. If a qualified person is not available for proper inspections, a service contract with a reputable manufacturer is advisable.² **(R 336.1201(3))**
11. Follow manufacturer's operation and maintenance guidelines.² **(R 336.1201(3))**

Footnotes:

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

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

EUT0260-09
EMISSION UNIT CONDITIONS

DESCRIPTION

EUT0260-09 is Gas Turbine No.9 at the CPP. Turbine No. 9 is fueled by natural gas or No. 2 fuel oil and is rated at 3.8 MW.

Flexible Group ID: FGBT0260-CO

POLLUTION CONTROL EQUIPMENT

Water injection system regulating water-to-fuel ratio.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUT0260-09, when firing natural gas, unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.5 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. Performance criteria used to obtain representative data and the means by which an exceedance or excursion will be defined are described in SC VI.3, below.² **(40 CFR 60.334(a))**
2. The permittee shall equip and maintain EUT0260-09 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EUT0260-09. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in EUT0260-09 meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:² **(40 CFR 60.334(h)(1), 40 CFR 60.334(3)(i) and (ii))**
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less;
or

- b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 of this chapter is required.
- 2. The permittee shall equip and maintain EUT0260-09 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EUT0260-09 to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio in lbs of water injected to lbs of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**
- 3. The permittee shall notify the AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912.² **(R 336.1213(c)(3), R 336.1912)**

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))**

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. SV-B0260-02	120 ²	South Stack: 159 ft. above a stack base elevation of 873 ft. ²	R 336.1224 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall comply with all applicable requirements for the Standards of Performance for Stationary Gas Turbines, as specified in 40 CFR Part 60, Subparts A and GG, as they apply to EUT0260-09. **(40 CFR Part 60, Subparts A and GG)**
- 2. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Combustion Turbines, as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to EUT0260-09. **(40 CFR Part 63, Subparts A and YYYY)**

Footnotes:

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

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

**EUT0260-10
 EMISSION UNIT CONDITIONS**

DESCRIPTION

EUT0260-10 is Gas Turbine No. 10 at the CPP. Turbine No. 10 is fueled by natural gas or No. 2 fuel oil and is rated at 3.8 MW.

Flexible Group ID: FGBT0260-CO

POLLUTION CONTROL EQUIPMENT

Water injection system regulating water-to-fuel ratio.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	7.54 lbs./hr., when firing natural gas in the turbines, nor 37.87 lbs./hr, when firing No. 2 fuel oil in the turbines. ²	Hourly	EUT0260-10	SC V.1 – V.3	40 CFR 52.21(d)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall equip and maintain EUT0260-10 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EUT0260-10. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify CO emission rates from EUT0260-10 by testing at the owner’s expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall verify the CO emission rates from EUT0260-10, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted.² **(R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in EUT0260-10 meets the definition of “natural gas” as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:² **(40 CFR 60.334(h)(1), 40 CFR 60.334 (3)(i) and (ii))**
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 of this chapter is required.
2. The permittee shall equip and maintain EUT0260-10 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EUT0260-10 to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio in lbs. of water injected to lbs. of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**
3. The permittee shall notify AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912.² **(R 336.1213(c)(3), R 336.1912)**
4. The permittee shall maintain and calibrate the fuel and water flow meters consistent with each manufacturer’s specifications.² **(R 336.1910)**

VII. REPORTING

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

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. SV-B0260-02	120 ²	South Stack: 159 ft. above a stack base elevation of 873 ft. ²	40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

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

**EUCPP-CHPHRSG
 EMISSION UNIT CONDITIONS**

DESCRIPTION

A combined heat and power unit (CHP) with heat recovery steam generator (HRSG) for a nominal 15.8 MW electricity production. The primary fuel for the turbine is natural gas but it will be capable of firing ultra-low sulfur diesel (ULSD) as a backup fuel. The CTG is Solar Titan 130E with a rating of 190.1 MMBTU/hr (HHV) on natural gas and 173.4 MMBTU/hr (HHV) on ULSD. The HRSG is equipped with a natural gas-fired duct burner rated at 112 MMBTU/hr (HHV) to provide heat for additional steam production. The HRSG is not capable of operating independently from the CTG. The natural gas duct burner shall not operate when diesel fuel is being fired in the turbine. The CTG/HRSG is equipped with dry low NO_x combustion technology and SCR.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Dry low-NO_x technology and SCR for NO_x control

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	25 ppm at 15% O ₂ OR 150 ng/J of useful output when firing natural gas at full load conditions ^{A2}	30-day rolling average as determined each operating day	EUCPP-CHPHRSG	SC VI.2 SC VI.9	40 CFR 60.4320(a) Table 1 of 40 CFR Part 60 Subpart KKKK^B
2. NO _x	74 ppm at 15% O ₂ OR 460 ng/J of useful output when firing ULSD at full load conditions ^{A2}	30-day rolling average as determined each operating day	EUCPP-CHPHRSG	SC VI.2 SC VI.9	40 CFR 60.4320(a) Table 1 of 40 CFR Part 60 Subpart KKKK^B
3. NO _x	7.69 lb/hr when firing natural gas at full load conditions ^{A2}	24-hour rolling average as determined each operating hour, except during startup and shutdown	EUCPP-CHPHRSG	SC VI.2 SC VI.9	R 336.1205(1)(a) & (b) 40 CFR 52.21(c) & (d)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
4. NO _x	15.16 lb/hr when firing ULSD at full load conditions ^{A2}	24-hour rolling average as determined each operating hour, except during startup and shutdown	EUCPP-CHPHRSG	SC VI.2 SC VI.9	R 336.1205(1)(a) & (b) 40 CFR 52.21(c) & (d)
5. NO _x	9 lb/event ²	Duration of a shutdown or startup ^C	EUCPP-CHPHRSG	SC VI.2 SC VI.9	R 336.1205(1)(a) & (b) 40 CFR 52.21(c) & (d)
6. NO _x	35.7 tpy ²	12-month rolling time period as determined at the end of each calendar month.	EUCPP-CHPHRSG	SC VI.2 SC VI.6	R 336.1205(1)(a) & (b)
7. CO	19.33 lb/hr when firing natural gas at full load conditions ^{A2}	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) 40 CFR 52.21(c) & (d)
8. CO	10.10 lb/hr when firing ULSD at full load conditions ^{A2}	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) 40 CFR 52.21(c) & (d)
9. CO	94.2 tpy ²	12-month rolling time period as determined at the end of each calendar month	EUCPP-CHPHRSG	SC V.1 SC VI.6	R 336.1205(1)(a) & (b)
10. PM10	3.60 lb/hr when firing natural gas at full load conditions ²	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.2803 R 336.2804 R 336.2810
11. PM10	3.50 lb/hr when firing ULSD at full load conditions ²	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.2803 R 336.2804 R 336.2810
12. PM2.5	3.60 lb/hr when firing natural gas at full load conditions ²	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.2803 R 336.2804 R 336.2810
13. PM2.5	3.50 lb/hr when firing ULSD at full load conditions ²	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.2803 R 336.2804 R 336.2810
14. SO ₂	0.06 lb/MMBTU at full load conditions ^{D2}	Hourly	EUCPP-CHPHRSG	SC VI.9	40 CFR 60.4330
15. VOC	4.08 lb/hr when firing natural gas at full load conditions ^{A2}	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.1702(a)
16. VOC	5.8 lb/hr when firing ULSD at full load conditions ^{A2}	Hourly	EUCPP-CHPHRSG	SC V.1 SC VI.9	R 336.1205(1)(a) & (b) R 336.1702(a)
17. GHGs as CO _{2e}	155,597 tpy ²	12-month rolling time period as determined at the end of each calendar month.	EUCPP-CHPHRSG	SC VI.8	R 336.1205(1)(a) & (b) R 336.2810 40 CFR 52.21(j)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
18. GHGs as CO ₂ e	1,000 lb/MWh of gross energy output at full load conditions ^{A2}	12-month rolling time period as determined at the end of each calendar month.	EUCPP-CHPHRSG	SC VI.8	R 336.1205(1)(a) & (b) R 336.2810 40 CFR 52.21(j)

^A Does not include startup and shutdown.

^B Table 1 of 40 CFR Part 60 Subpart KKKK also allows 150 ppm at 15 percent O₂ when the turbine is operating at less than 75 percent of peak load and at temperatures less than 0°F.

^C Startup is defined as the period of time from initiation of the combustion process (flame-on) from shutdown status and continues until steady state operation (loads greater than a demonstrated percent of design capacity) is achieved. Shutdown is defined as that period of time from the lowering of the turbine output below the demonstrated steady state level, with the intent to shut down, until the point at which the fuel flow to the combustor is terminated. The demonstrated percent of design capacity, or demonstrated steady state level, shall be described in the plan required in SC III.2.

^D Equal to the 40 CFR 60.4330(a)(2) limit of 26 ng/J of heat input

II. MATERIAL LIMIT(S)

1. The permittee shall only burn pipeline quality natural gas or ultra-low sulfur diesel (ULSD) in EUCPP-CHPHRSG.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4330)**
2. The pipeline quality natural gas burned in EUCPP-CHPHRSG shall not have a total sulfur content in excess of 0.5 grains of sulfur per 100 standard cubic feet. This restriction subsumes the sulfur content fuel requirement of 20 grains of sulfur per 100 standard cubic feet of gas in 40 CFR Part 60, Subpart KKKK.² **(R 336.1205(1)(a) & (b), 40 CFR 60.4365(a))**
3. The ULSD burned in EUCPP-CHPHRSG shall not have a total sulfur content in excess of 15 ppmw. This restriction subsumes the 0.05 weight percent (500 ppmw) sulfur content fuel requirement in 40 CFR Part 60, Subpart KKKK.² **(R 336.1205(1)(a) & (b), 40 CFR 60.4365(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCPP-CHPHRSG burning ULSD for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month.² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a))**
2. Within 180 days of operation, the permittee shall submit, implement, and maintain a malfunction abatement plan (MAP) as described in Rule 911(2) for EUCPP-CHPHRSG. The MAP shall, at a minimum, specify the following:
 - a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
 - d. Operating variables and ranges under various load conditions shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be maintained.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement

corrective procedures or operational changes to achieve compliance with all applicable emission limits.² (R 336.1205(1)(a) & (b), R 336.1224, R 336.1702(a), R 336.1910, R 336.1911, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(j), (c), & (d))

3. Within 180 days of operation, the permittee shall submit, implement, and maintain a plan that describes how emissions will be minimized during startup and shutdown. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporate standard industry practices, and shall describe the demonstrated percent of design capacity, or demonstrated steady state level. Unless notified by the District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved.² (R 336.1911, R 336.1912, R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4333(a))
4. The total number of startup and shutdown events for EUCPP-CHPHRSG shall not exceed 60 events per 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d))
5. The permittee shall operate and maintain EUCPP-CHPHRSG, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice.² (40 CFR 60.4333(a))
6. The permittee shall implement and maintain an audio/visual/olfactory (AVO) plan for the natural gas piping and associated components to EUCPP-CHPHRSG.² (R 336.1205(1)(a) & (b), R 336.1702(a), R 336.2803, R 336.2804, R 336.2810)
7. Upon the loss of natural gas, the permittee shall take immediate action to exhaust EUCPP-CHPHRSG through the north stack and to shut down the duct burning until natural gas is restored.² (R 336.1225, R 336.2803, R 336.2804)
8. The permittee shall not operate EUTURBINE, EUCPP-CHPHRSG and FG0260-CO for more than 1,000 hours in aggregate between the gas turbines per 12-month rolling time period when firing No. 2 fuel oil. (R 336.1213(3), 40 CFR 52.21(b)(3), 40 CFR 63.6175 (definition of "Diffusion Flame gas-fired stationary combustion turbine" 40 CFR Part 63, Subpart YYYYY).

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for the turbine in EUCPP-CHPHRSG shall not exceed, on a fuel heat input basis, 190.1 MMBTU per hour (HHV) on natural gas and 173.4 MMBTU/hr (HHV) on ULSD and the design heat input capacity the duct burner in EUCPP-CHPHRSG shall not exceed, on a fuel heat input basis, 112 MMBTU per hour (HHV).² (R 336.1205(1)(a) & (b), R 336.2803, R 336.2804)
2. The permittee shall not operate EUCPP-CHPHRSG unless the dry low NO_x technology and selective catalytic reduction are installed, maintained, and operated in a satisfactory manner, for EUCPP-CHPHRSG. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EUCPP-CHPHRSG as required in SC III.2.² (R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1910, 40 CFR 52.21(c) & (d))
3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, devices to monitor and record the NO_x emissions and oxygen (O₂) content of the exhaust gas from EUCPP-CHPHRSG on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix 3.² (R 336.1205(1)(a) & (b), 40 CFR 60.4340(b)(1), 40 CFR 60.4345, 40 CFR Part 75)
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the natural gas usage rate for EUCPP-CHPHRSG on a continuous basis. The device shall be operated in accordance with 40 CFR 60.4345(c).² (R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4345)
5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a sufficient number of watt meters to continuously measure and record the hourly gross electric output from EUCPP-CHPHRSG.² (R 336.1205(1)(a) & (b), R 336.2810, 40 CFR 52.21(j))

- The permittee shall install, calibrate, maintain and operate in a satisfactory manner a sufficient number of watt meters to continuously measure and record the total useful thermal output from EUCPP-CHPHRSG.² **(R 336.1205(1)(a) & (b), R 336.2810, 40 CFR 52.21(j))**

See Appendix 3

V. TESTING/SAMPLING

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

- Within 180 days after commencement of initial startup, the permittee shall verify CO, PM10, PM2.5, and VOC emission rates from EUCPP-CHPHRSG at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements. The permittee must complete the required testing once every five years of operation, thereafter. Testing shall be based on an average of three 1-hour or longer test runs performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
CO	40 CFR Part 60, Appendix A
VOCs	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.² **(R 336.1205(1)(a) & (b), R 336.1331(1)(c), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**

- Within 180 days after commencement of initial startup, and annually thereafter, the permittee shall verify SO₂ emissions by verifying the sulfur content of the fuels burned in EUCPP-CHPHRSG. This can be performed by obtaining fuel characterization documentation as specified in 40 CFR 60.4365 or by performing an analysis of fuel samples following ASTM D5287 for natural gas and ASTM D4177 for oil. Alternatively, for oil, the permittee may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057. The fuel analyses may be performed either by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. The samples for the total sulfur content of the fuel shall be analyzed using:² **(40 CFR 60.4415(a)(1))**
 - For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all of which are incorporated by reference, see 40 CFR 60.17); or
 - For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR 60.17).
- The permittee shall verify CO, PM10, PM2.5, and VOC emission rates from EUCPP-CHPHRSG, 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)**
- The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

- The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(j), 40 CFR 60.4345, 40 CFR 60.5535(c), 40 CFR 60.5540(a) & (b), 40 CFR 60.5560)**
- The permittee shall continuously monitor and record, in a satisfactory manner, the NO_x emissions and the O₂ emissions from EUCPP-CHPHRSG. The permittee shall operate each CEMS to meet the timelines,

requirements and reporting detailed in Appendix A and shall use the CEMS data for determining compliance with SC I.1, SC I.2, SC I.3, SC I.4, and SC I.5.² **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR 60.4345, 40 CFR 60.4320(a), Table 1 of 40 CFR Part 60, Subpart KKKK)**

3. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for EUCPP-CHPHRSG on an hourly and monthly basis. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2810, 40 CFR 52.21(c), (d) and (j), 40 CFR 60.4345, 40 CFR 60.4320(a), Table 1 of 40 CFR Part 60, Subpart KKKK)**
4. The permittee shall maintain a record of the number of hours ULSD is fired in EUCPP-CHPHRSG on a monthly and 12-month rolling time period basis as determined at the end of each calendar month. ² **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a))**
5. The permittee shall maintain a record of the number startup and shutdown events EUCPP-CHPHRSG is operating under startup on a monthly and 12-month rolling time period basis as determined at the end of each calendar month.² **(R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, R 336.2810)**
6. The permittee shall keep, in a satisfactory manner, a record of the following:
 - a. Hourly and 24-hour rolling average NO_x emission rate for each fuel type.
 - b. Daily and 30-day rolling average NO_x concentration for each fuel type.
 - c. Mass of NO_x emissions for each startup or shutdown event. Startup and shutdown events were defined in footnote C of the emission limit table in Section I.
 - d. Total monthly and 12-month rolling NO_x, and CO emission rates.

The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.2803, R 336.2804, R 336.2810)**

7. The permittee shall keep, in a satisfactory manner, all test reports for EUCPP-CHPHRSG, on file at the facility and make them available to the Department upon request.² **(R 336.1205(1)(a) & (b), R 336.1331(1)(c), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**
8. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_{2e} mass emissions and mass per MWh for EUCPP-CHPHRSG, as required by SC I.17 and SC I.18. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed using the method included in Appendix 7 unless a new method is approved by the District Supervisor.² **(R 336.1205(1)(a) & (b), R 336.2810, 40 CFR 52.21(j))**
9. 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 EUCPP-CHPHRSG. 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 and potential sulfur emissions, as applicable, of the natural gas and ULSD as required by 40 CFR 60.4365(a);
 - 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. All records required by 40 CFR 60.7;
 - h. Records of the duration of all dates and times of startup and shutdown events;
 - i. All calculations necessary to show compliance with the limits contained in this permit;
 - j. All records related to, or as required by, the MAP, AVO and the startup and shutdown plan.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor and shall be consistent with the requirements of 40 CFR 60.7(f).² **(R 336.1205(1)(a) & (b), R 336.1224, R 336.1225, R 336.1331(1)(c), R 336.1702(a), R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(j), 40 CFR 60.7(f), 40 CFR 60.4345, 40 CFR 60.4365, 40 CFR Part 60, Subpart KKKK)**

10. The permittee shall maintain a record of all natural gas loss events including the dates and times of the natural gas loss and when natural gas supply was restored. This record shall indicate that the exhaust was through the north stack and the duct burner was off before the natural gas loss event or else indicate the times that the duct burner was turned off and/or the exhaust was routed to the north stack.² **(R 336.1225, R 336.2803, R 336.2804)**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit any performance test reports including RATA reports to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**
5. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUCPP-CHPHRSG.² **(R 336.1201(7)(a), R 336.1216(1)(a)(v))**
6. The permittee shall provide written notification of the date construction commences and the actual date of initial startup of EUCPP-CHPHRSG, in accordance with 40 CFR 60.7. The permittee shall submit the notification(s) to the AQD District Supervisor within the time frames specified in 40 CFR 60.7 and 40 CFR 60.19, where applicable.² **(40 CFR 60.7(a))**
7. The permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c) and with 40 CFR 60.4375 and 40 CFR 4380. The reports shall be postmarked by the 30th day following the end of each 6-month period.² **(40 CFR 60.7(c), 40 CFR 60.4375(a), 40 CFR 60.4380, 40 CFR 60.4395)**

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. SV-B0260-01	168 ²	North Stack: 250 ft. above a stack base elevation of 859 ft. ²	R 336.1225 R 336.2803 R 336.2804
2. SV-B0260-02	120 ²	South Stack: 159 ft. above a stack base elevation of 873 ft. ²	R 336.1225 R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

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

Footnotes:

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

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

EUB0805-02
EMISSION UNIT CONDITIONS

DESCRIPTION

EUB0805-02 is Boiler No. 2 at the Hoover Heating Plant. This boiler has rated steam capacity of 25,875 lbs. per hour of steam and has a maximum rated heat input of 31.4 MMBTU per hour when burning either natural gas or fuel oil.

Flexible Group ID: FGBLRMACT-LG

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	0.018 lb/MMBTU (when firing natural gas) ²	24-hour period (lbs./MMBTU)	EUB0805-02	SC V.1 - V.3 SC VI.1	40 CFR 52.21(c) and (d) R 336.1205(1)(a) R 336.2803 R 336.2804
2. NO _x	0.37 lbs/hr (when firing natural gas) ²	Hourly	EUB0805-02	SC V.1 – V.3 SC VI.1	40 CFR 52.21(c) and (d) R 336.1205(1)(a) R 336.2803 R 336.2804
3. NO _x	0.113 lb/MMBTU (when firing fuel oil) ²	24-hour period (lbs./MMBTU)	EUB0805-02	SC VI.1 – VI.6	40 CFR 52.21(c) and (d) R 336.1205(1)(a) R 336.2803 R 336.2804
4. NO _x	2.3 lbs/hr (when firing fuel oil) ²	Hourly	EUB0805-02	SC VI.1 – VI.6	40 CFR 52.21(c) and (d) R 336.1205(1)(a) R 336.2803 R 336.2804
5. Opacity	20% opacity, as specified in 40 CFR 60.43c(c) ²	Six-minute average.	EUB0805-02	SC VI.4 -VI.6	R 336.1301 40 CFR 60.43c(c)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur in fuel oil	0.25% by weight ²	Instantaneous	EUB0805-02	SC VI.1 – VI.6	40 CFR 60.42c(d) R 336.1401 R 336.1205(1)(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only combust natural gas and/or fuel oil in EUB0805-02.¹ **(R 336.1225)**
2. The permittee shall install, maintain, and operate EUB0805-02 according to the manufacturer's written instructions, or procedures developed by the owner/operator and approved by the boiler manufacturer, over the entire life of each boiler.² **(R 336.1225, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input rate of the boiler in EUB0805-02 shall not exceed 31.4 million British thermal units per hour (MMBTU/hr) on a fuel heat input basis.² **(R 336.1205(1)(a))**

V. TESTING/SAMPLING

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

1. Upon the request of the District Supervisor, the permittee shall verify NO_x emission rates from EUB0805-02 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3)R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, monthly natural gas and fuel oil usage records for EUB0805-02. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1225, R 336.1702(a), 40 CFR 60.48c(g))**
2. The permittee shall keep, in a satisfactory manner, fuel oil supplier certification for each delivery of fuel oil. The certification shall include the name of the fuel oil supplier and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c. **(40 CFR 60.48c(f))**
3. The permittee shall monitor and record the fuel oil usage in EUB0805-02 on a daily basis in a manner and with instrumentation acceptable to the AQD.² **(R 336.1225, R 336.1702(a))**
4. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(40 CFR 60.48c(f))**
5. The permittee shall monitor the density, sulfur and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Hoover Heating Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD. **(R 336.1213(3))**

- In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the EUB0805-02 demonstrating that the fuel sulfur content meets the requirement of SC II. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**

VII. REPORTING

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

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. SV-B0805-02	20.0 ²	50.0 ²	R 336.1225, R 336.1803, R 336.1804, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

- The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to EUB0805-02. **(40 CFR Part 60, Subparts A and Dc)**
- The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to EUB0805-02. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**EUB0805-03
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUB0805-03 is Boiler No. 3 at the Hoover Heating Plant. Boiler No. 3 is a natural gas-fired boiler with No. 2 fuel oil back-up capability, rated at 31.4 MMBTU/hr. heat input.

Flexible Group ID: FGBLRMACT-LG

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity	20%, as specified in 40 CFR 60.43c (c) ²	6-minute average	EUB0805-03	SC VI.4 – VI.6	R 336.1301 40 CFR Part 60, Subparts A & Dc

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel Oil	Sulfur content of the fuel oil shall not exceed 0.25% by weight. ²	Instantaneous	EUB0805-03	SC VI.1 SC VI.4 – VI.6	R 336.1205(3) 40 CFR 60.42c(d)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas and/or No. 2 fuel oil in EUB0805-03.² **(R 336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, monthly natural gas and fuel oil usage records for EUB0805-03. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1225, R 336.1702(a), 40 CFR 60.48c(g))**

2. The permittee shall keep, in a satisfactory manner, fuel oil supplier certification for each delivery of fuel oil. The certification shall include the name of the fuel oil supplier and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c. **(40CFR 60.48c(f))**
3. The permittee shall monitor, in a satisfactory manner, the natural gas and fuel oil usage from EUB0805-03 on a monthly basis.² **(R 336.1225, R 336.1702(a), 40 CFR 60.48c(g))**
4. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(R 336.1225, R 336.1702(a), 40 CFR 60.48c(g))**
5. The permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Hoover Heating Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(R 336.1225, R 336.1702(a), 40 CFR 60.48c(g))**
6. In lieu of taking a representative sample, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the Hoover Heating Plant demonstrating that the fuel sulfur content meets the requirement of SC II. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**

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))**

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. SV-B0805-03	26 ²	30 ²	R 336.1225 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subpart A and Subpart Dc, as they apply to EUB0805-03. **(40 CFR Part 60, Subparts A and Dc)**

2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to EUB0805-03. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**EUB550-GEN
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUB550-GEN is a stationary, diesel-fired emergency generator with a heat input of 14.71 MMBTU/hr., located at NCRC Building 550, with a maximum rated output of 1.5 MW.

Flexible Group ID: FGZZZZ-CI>500

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	15.0 tons per year (tpy) ²	12-month rolling time period as determined at the end of each calendar month	EUB550-GEN	SC VI.1 & VI.2 and emission factors*	R 336.1205(1)(a) R 336.1205(3) 40 CFR 52.21

***Emission Factors**

This limit is based on an emission factor of 552.7 pounds NOx per 1000 gallons of diesel fuel used or 59.14 pounds of NOx per hour of operation, or other emission factor as approved by the AQD District Supervisor.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUB550-GEN for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(1)(a), R 336.1205(3), 40 CFR 52.21)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep monthly and previous 12-month NOx calculation records for EUB550-GEN. All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.² **(R 336.1205(1)(a), R 336.1205(3), 40 CFR 52.21)**
2. The permittee shall monitor and record the hours of operation for EUB550-GEN each month in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.² **(R 336.1205(1)(a), R 336.1205(3), 40 CFR 52.21)**

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))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subparts A and ZZZZ as they apply to EUB550-GEN. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

**EUTURBINE
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUTURBINE is a cogeneration gas-fired turbine located at the NCRC Powerhouse, with a capacity of 40.1 MMBTU/hr, used to produce electricity, fueled with natural gas, and/or No. 2 fuel oil. Exhaust from the turbine can either be sent through the waste heat boiler No. 4 (EUDUCTBURNER) for heat recovery and steam generation or exhausted through a by-pass stack (SV-BYPASS).

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	36.1 pounds per hour ^{2*}	12 month rolling time period as determined at the end of each calendar month	EUTURBINE	SC V.1 – V.3, SC VI.1 –VI.5, and emission factors**	40 CFR 52.21 (c) and (d) 40 CFR Part 60, Subparts A and GG

* Equivalent to 167 parts per million by volume on a dry gas basis, corrected to 15 percent oxygen and at ISO conditions.

****EMISSION FACTORS:**

No. 2 fuel oil: 96.4 lbs. NOx/1000 gallons (Manufacturer’s data).

Natural Gas: 361 lbs. NOx /MMCF based on 1989 performance stack test data. Emission factors may be modified based on updated performance stack test data or if approved by AQD District Supervisor.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 2 fuel oil	0.10 % Sulfur content by weight ²	Based on a 30-day rolling time period.	EUTURBINE	SC VI.1 & VI.2	R 336.1201(3) R 336.1401 40 CFR 52.21 (c) and (d) 40 CFR Part 60, Subparts A and GG

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EUTURBINE and FGBT0260-CO for more than 1,000 hours in aggregate between the gas turbines per 12-month rolling time period when firing No. 2 fuel oil.² **(40 CFR 52.21(b)(3), 40 CFR 63.6715 (definition of “Diffusion Flame gas-fired stationary combustion turbine”))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x emission rates from EUTURBINE by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the NO_x emission rates from EUTURBINE, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than 7 days prior to the anticipated test date.² **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain purchase records of the type and quantity of fuel oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(R 336.1401, 40 CFR 52.21(c) and (d), 40 CFR Part 60, Subparts A and GG)**
2. The permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the NCRC during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(R 336.1401)**
3. In lieu of taking a representative sample, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the NCRC demonstrating that the fuel sulfur content meets the requirement of SC II. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**
4. The permittee shall keep monthly and previous 12-month NO_x calculation records for EUTURBINE. The permittee will show compliance with the SC I.1, NO_x emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data at the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors. **(R 336.1213(3), 40 CFR 52.21 (c) and (d), 40 CFR Part 60, Subparts A and GG)**
5. To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in EUTURBINE meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:² **(40 CFR 60.334(h)(1), 40 CFR 60.334 (3)(i) and (ii))**
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 of this chapter is required.

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))**

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. SV-COGEN	NA	87 ²	40 CFR 52.21(c) and (d)
2. SV-BYPASS	NA	87 ²	40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements for the Standards of Performance for Stationary Gas Turbines, as specified in 40 CFR Part 60, Subparts A and GG, as they apply to EUTURBINE. **(40 CFR Part 60, Subparts A and GG)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Combustion Turbines, as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to EUTURBINE. **(40 CFR Part 63, Subparts A and YYYY)**

Footnotes:

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

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

**EUDUCTBURNER
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUDUCTBURNER is a natural gas-fired burner providing supplemental heat to the cogeneration turbine waste heat to produce steam in the downstream waste heat Boiler No. 4, rated at a maximum capacity of 32 MMBTU/hr., located at the NCRC Powerhouse.

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	0.14 pounds per million BTUs heat input ²	30-day rolling time period	EUDUCTBURNER	SC VI.1, and emission factor*	40 CFR 52.21 (c) and (d)
2. NOx	1.63 tons per month ²	30-day rolling time period	EUDUCTBURNER	SC VI.1, and emission factor*	40 CFR 52.21 (c) and (d)

***EMISSION FACTOR:**

Natural gas: 140 lbs NOx per MMscf natural gas (AP-42 from 1985). Alternatively, other emission factors as approved by AQD District Supervisor or the most recent emission factor verified by compliance stack testing may be used.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep monthly and previous 12-month NOx calculation records for EUDUCTBURNER. The permittee will show compliance with the SC I.2, NOx emission limits by maintaining records of total monthly fuel usage, operating hours, and by calculating the tons per month NOx emissions on a 12-month rolling time period using this data at the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1

– SC I.2, NOx emission factors. The permittee tracks fuel use and operating hours on a daily basis.²
(R 336.1201(3), 40 CFR 52.21 (c) and (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))**

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. SV-COGEN	NA	87 ²	40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to EUDUCTBURNER. **(40 CFR Part 60, Subparts A and Dc)**

Footnotes:

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

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

**EUB800-GEN1
EMISSION UNIT CONDITIONS**

DESCRIPTION

EUB800-GEN1 is a stationary diesel-fired emergency RICE generator to provide backup electrical service, with a maximum electrical output rating of 2.25 MW capacity for backup electric power generation at NCRC Building 800.

Flexible Group ID: FGEMERG-III,

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	6.9 tpy ²	12-month rolling time period as determined at the end of each month	EUB800-GEN1	SC VI.1 – VI.4, and emission factor*	R 336.1205(1)(a)

*The NOx emission limit is based on an emission factor of 7.7 grams of NOx per brake horsepower-hour (g/bHP-hr) and 3,251 brake horsepower (bHP) at 100% load (in standby mode) operation. In the event that testing is performed on EUB800GEN1, the emission factor derived from that testing will be used in lieu of the assumed NOx emission factor of 7.7 g NOx /bHP-hr.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel No. 2 fuel oil	Only allowed fuel ²	NA	EUB800-GEN1	SC VI.1 – VI.4	R 336.1205(1)(a) R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate EUB800-GEN1 in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction.² (**R 336.1911, R 336.1912(6)**)
2. The permittee shall not operate EUB800-GEN1 more than 250 hours per 12-month rolling time period as determined at the end of each calendar month.² (**R 336.1205(1)(a), R 336.1205(3)**)

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor the hours of operation of EUB800-GEN1 on a monthly basis in a manner that is acceptable to the District Supervisor, Air Quality Division.² **(R 336.1205(1)(a), R 336.1205(3))**
2. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of malfunctions and corrective maintenance performed that may impact the air emissions of EUB800-GEN1. Also, results from any air emissions testing of EUB800-GEN1 must be maintained. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1911)**
3. The permittee shall keep, in a satisfactory manner, hours of operation records for EUB800-GEN1, as required by SC VI.1. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205(3))**
4. The permittee shall calculate monthly and 12-month rolling time period NOx emissions from EUB800-GEN1 and shall keep these calculations on file for a period of five years and make them available to the Department upon request. For the purpose of showing compliance with the NOx emission limit in SC I.1, the applicant shall multiply the NOx emission factor by the number of operating hours and the output capacity (3,251 brake horsepower) of the generator. If EUB800-GEN1 is in service, it will be assumed to be operating at 100% load (in standby mode) for every hour of operation. Any alternate method of calculating NOx emissions based upon testing must be approved by the District Supervisor, Air Quality Division.² **(R 336.1205(1)(a), R 336.1205(3))**

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to EUB800-GEN1. **(40 CFR Part 60, Subparts A and IIII)**
2. EUB800-GEN1 complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subparts A and ZZZZ by complying with 40 CFR Part 60, Subpart IIII. **(40 CFR 63.5590(c))**

Footnotes:

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

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

**EUB85-FIREPUMP2
EMISSION UNIT CONDITIONS**

DESCRIPTION

Fire Pump No. 2 is an emergency diesel RICE for fire protection pump of 105 HP capacity, used to provide backup pumping capabilities to the fire protection system located at NCRC Building No. 85.

Flexible Group ID: FGEMERG-ZZZZ

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen Oxides (NOx)	1.41 TPY ²	12-month rolling time period as determined at the end of each calendar month	EUB85-FIREPUMP2	SC VI.4	R 336.1205(1)(a), R 336.1205(3)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	Only allowed fuel ²	NA	EUB85-FIREPUMP2	SC VI.4	R 336.1205(1)(a), R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUB85-FIREPUMP2 for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a), R 336.1205(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall equip and maintain each of the fire protection pumps in EUB85-FIREPUMP2 with a device to monitor the hours of operation.² (R 336.1205(1)(a), R 336.1205(3))
2. The permittee shall monitor the hours of operation for EUB85-FIREPUMP2 on a monthly basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.² (R 336.1205(1)(a), R 336.1205(3))

3. The permittee shall keep records of the hours of operation of EUB85-FIREPUMP2 on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205(3))**
4. The permittee shall calculate monthly and 12-month rolling time period NO_x emissions from EUB85-FIREPUMP2 and shall keep these calculations on file for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205(3))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subparts A and ZZZZ as they apply to EUB85-FIREPUMP2. **(40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

D. FLEXIBLE GROUP 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
FGB0260-03-04	Boiler No. 3 and Boiler No. 4 at the CPP.	EUB0260-03, EUB0260-04
FGBT0260-C0	Gas Turbine Cogeneration System at the CPP, consisting of two (2) 4500 kW gas turbines firing natural gas or fuel oil (Turbine No. 9 and Turbine No. 10) and two (2)-65,000 lbs. steam/hr. heat recovery boilers firing natural gas or fuel oil (Boiler No. 7 and Boiler No. 8).	EUB0260-07, EUB0260-08, EUT0260-09, EUT0260-10
FGB5102-01-02	Two (2)-24.8 MMBTU/hr. natural gas-fired boilers, with diesel oil firing capability for backup, located at Brehm Tower, Building No. 5102.	EUB5102-01, EUB5102-02
FGB5102-03-04	Two (2)-10 MMBTU/hr. natural gas-fired boilers, located at the Brehm Tower, Building No. 5102.	EUB5102-03, EUB5102-04
FG3GENS-5102	Three (3)-750 kW diesel fuel-fired reciprocating internal combustion engine (RICE) emergency generators, located at the Brehm Tower, Building No. 5102.	EUGEN-5102-01, EUGEN-5102-02, EUGEN-5102-03.
FG4GENS-5173	Four (4)-2 MW diesel fuel-fired RICE emergency generators, located at the C.S. Mott Children's and Women's Hospital, Building No. 5173.	EUGEN-5173-01, EUGEN-5173-02, EUGEN-5173-03, EUGEN-5173-04.
FG10DGENS-2MW	Ten (10)-2 MW diesel fuel-fired RICE emergency generators, located at the Medical Information Technology Center (MITC), the Cardiovascular Center (CVC), the Biological Sciences Research Building (BSRB), the University of Michigan Hospital (UMH), and the Medical Center Information Technology Building (MCIT).	EUMITC-GEN1, EUMITC-GEN2, EUMITC-GEN3, EUCVC-GEN1, EUCVC-GEN2, EUBSRB-GEN1, EUBSRB-GEN2, EUUMH-GEN4, EUMCIT-GEN1, EUMCIT-GEN2.
FGBOILERS1A&1B	Boilers No. 1A and No. 1B, are Clayton steam generators fired with natural gas with No. 2 fuel oil capability, providing a fast response source of steam at the NCRC Powerhouse facility. Each has a rated capacity of 19.9 MMBTU/hr and produces up to 17,150 lbs steam/hr.	EUBOILER1A, EUBOILER1B
FGBOILERS2&3	Boilers No. 2 and No. 3 are identical boilers firing natural gas or No. 2 fuel oil, producing steam at the NCRC Powerhouse facility. Each boiler is rated at 63.2 MMBTU/hr, heat input, and each produces 50,000 pounds of steam per hour.	EUBOILER2, EUBOILER3

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERS5&6	Boilers No. 5 and No. 6 are identical boilers firing natural gas or No. 2 fuel oil, producing steam at the NCRC Powerhouse facility. Each boiler has a natural gas maximum capacity at 72.0 MMBTU/hr. and No. 2 fuel oil maximum capacity at 70 MMBTU/hr.	EUBOILER5, EUBOILER6
FG85-EMERGENS	Two (2) diesel emergency RICE generators of 2.25 MW capacity each located at the NCRC Powerhouse.	EUB85-EMERGEN1, EUB85-EMERGEN2
FGPATHDGENS	Two 1500 kilowatts (kW) diesel-fueled emergency generators manufactured in 2017, with a displacement of 4.3 liters/cylinder. Located in NCRC Pathology.	EUPATH-DGEN1, EUPATH-DGEN2
FGCITENGINES	Three 2,682 hp (2000 kW) diesel-fueled emergency engines located at the Clinical Inpatient Tower.	EUCIT01, EUCIT02, EUCIT03
FGEMERG-III	FGEMERG-III consists of emergency stationary compression ignition (CI) internal combustion engines (ICE), which commenced construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, which are subject to 40 CFR Part 60, Subpart IIII -The Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. For the purpose of Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator.	EUGEN-5102-01, EUGEN-5102-02, EUGEN-5102-03, EUGEN-5173-01, EUGEN-5173-02, EUGEN-5173-03, EUGEN-5173-04, EUMITC-GEN1, EUMITC-GEN2, E-MITC-GEN3, EUCVC-GEN1, EUCVC-GEN2, EUMCIT-GEN1, EUMCIT-GEN2, EUB800-GEN1, EUBOTGARDEN, EUPATH-DGEN1, EUPATH-DGEN2, EUCIT01, EUCIT02, EUCIT03
FGEMERG-JJJJ	FGEMERG-JJJJ consists of emergency stationary spark ignition (SI) internal combustion engines (ICE) with a maximum engine power greater than 19 kW (25 HP) that commence construction on and after January 1, 2009, which are subject to 40 CFR Part 60, Subpart JJJJ - The Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. For the purposes of this subject, the date that construction commences is the date the engine is ordered by the owner or operator.	EUGERST, EUCSSB, EUCOUZENS, EUCLITTLE, EUHILLSTPARK, EURUTHVEN, EUSOUTHALL, EUTHOMPSONPK, EUVARSITYDR, EUGLENPARKING, EUROSS500KW, EUROSS350KW, EUGGBROWN150KW, EUNCACNATGAS, EULORCH, EUWALLPARKING, EUMUSIC, EUVARSITY550KW, EUWESTQUAD, EUROBOTICS, EUMEDCTRPARKING, EUGEN-ISR, EUGENSOUTHQUAD, EUBSB-01, EUBSB-02, EUMUNGER-02, EUNCRCB073, EUKRAUS
FGZZZZ-CI<500	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, compression ignition (CI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.	EUB080-GEN, EUB85-FIREPUMP2, EUKELLOGG-UP, EUNCADMIN, EUALICELLOYD, EUCPP

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGZZZZ-SI<500	<p>40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, spark ignition (SI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.</p>	<p>EUAUXSERV, EUBIOMEDENG, EUCOOLEY, EUCSE, EUDUDER, EUFACSERVA, EUFORDLIB, EUFXB, EUNCMICRO, EUPRINTGEN, EUPERRY, EUROSSACAD, EUSINDUST, EUWOLVERINE, EUWOMENGYM, EUANNPARK, EUHEALTH, EUMEDSCI2, EUSIMPSONPKG, EUUMHOLDEN, EUUMHMEDINN, EUCHURCHST, EUCOOKLEGAL, EUEASTQUAD, EUHAVEN, EUKRESGELIB, EUOBSERLODGE, EURACKHAM, EUSOCIALWK, EUWESTHALL, EUWYLYHALL, EUARBORLKS1, EUARBORLKS2-45, EUNURSING, EUNCRC-B075, EUTRAVERWOOD, EUPHOENIX, EUWALGREEN, EUARF, EUDENNISON, EUFLETCHER, EUFORDSCHOOL, EUSPH2, EUMOJOFOOD, EUSTOCKWELL</p>
FGZZZZ-SI>500	<p>40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, spark ignition (SI) RICE greater than 500 brake hp. An existing emergency spark ignition engine is one that commenced construction or reconstruction before December 19, 2002.</p>	<p>EUADMINISERV, EUMSRB-III, EUMLB, EUPALMERCMM, EUPALMERPARK</p>
FGZZZZ-CI>500	<p>40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is existing if the date of installation is before December 19, 2002.</p>	<p>EUUMH-GEN4, EUUMHGEN1, EUUMHGEN2, EUUMHGEN3, EUUMHMCHC, EUUMHEMBMOTT, EUARBORLKS3, EUB016-GEN, EUB550-GEN</p>

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGZZZZ-CI>500 NEW	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002	EUBSRB-GEN1, EUBSRB-GEN2, EUARBORLKS2, EUB85-EMERGEN1, EUB85-EMERGEN2
FGZZZZ-SI>500 NEW	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, new or reconstructed emergency, spark ignition (SI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002.	EUEECS-880KW, EUEECS-800KW, EUFBALL-WEST, EUFBALL-EAST, EUSPH1, EUHATCHER, EULSA, EULSI1, EULSI2, EUNORTHQUAD, EUROSSBUS1, EUROSSBUS2, EUTHAYER, EUUNDERSCI
FGBLRMACT-LG	Requirements for new and existing boilers and process heaters that are designed to burn gas 1 subcategory fuel with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). Units designed to burn gas 1 subcategory fuels include boilers or process heaters that burn only natural gas, refinery gas, and/or Other Gas 1 fuels. Units that burn liquid fuel for testing or maintenance purposes for less than a total of 48 hours per year, or that burn liquid fuel during periods of curtailment or supply interruptions are included in this definition.	EUB0260-02, EUB0260-03, EUB0260-04, EUB0260-06, EUB0805-02, EUB0805-03, EUB0805-04, EUB5102-01, EUB5102-02, EUB5102-03, EUB5102-04, EUBOILER2, EUBOILER3, EUBOILER1A, EUBOILER1B, EUBOILER5, EUBOILER6, EUB0400-01, EUB0400-02, EUB0407-LP-01, EUB0407-LP-02, EUB0407-LP-03, EUB0423-01, EUB0423-02, EUB0425-03, EUB0555-01, EUB0555-02

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
<p>FGBLRMACT-SM</p>	<p>Requirements for existing Small (<10 MMBTU) Boilers and Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). These existing boilers or process heaters are designed to BURN solid, liquid, or gaseous fuels. These units are not subject to the emission limits in Tables 1 and 2 or 11 through 13, or the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD.</p>	<p>EUB0350-01, EUB0396-03, EUB0399-01, EUB0399-02, EUB0399-03, EUB0406-01, EUB0406-02, EUB0406-NEW-1, EUB0406-NEW-02, EUB0409-01, EUB0437-01, EUB0437-02, EUB0437-03, EUB0437-SB-01, EUB0439-01, EUB0439-02, EUB0440-02, EUB0515-01, EUB0515-02, EUB0515-03, EUB0515-04, EUB0709-02, EUB0710-01, EUB0711-DHWH-1, EUB0711-DHWH-2, EUB0742-01, EUB0742-02, EUB0799-01, EUB0816-01, EUB0857-01, EUB0857-02, EUB0890-01, EUB0890-02, EUB0890-03, EUB0982-01, EUB0982-02, EUB0982-03, EUB2501-01, EUB5038-01, EUB5038-02, EUB5038-DHWH-1, EUB5038-DHWH-2, EUB5092-01, EUB5092-02, EUB5092-03, EUB5059-01, EUB5059-02, EUB5059-03, EUB5059-04, EUB5059-DHWH-05, EUB5117-01, EUB5117-02, EUB5283-01, EUB8081-2-01, EUB0324-01, EUB0324-02, EUB0396-01, EUB0396-02, EUB0403-01, EUB0403-02, EUB0403-03, EUB0437-SB-02, EUB0437-SB-03, EUB0440-01, EUB0440-03, EUB0441-01, EUB0441-02, EUB0512-01, EUB0512-02, EUB0442-02, EUB0442-03, EUB0448-01, EUB0448-02, EUB0448-03, EUB0448-04, EUB0555-03, EUB0555-04, EUB0555-05, EUB0799-02, EUB0831-01, EUB0831-02, EUB0427-01, EUB0427-02, EUB0432-01, EUB0432-02, EUB0444-01, EUB0444-02, EUB0444-03, EUB0457-01, EUB0457-02, EUB0460-01, EUB0460-02, EUB0498-01, EUB0498-02, EUB0498-03, EUB0812-01, EUB0812-02, EUB0812-03, EUB5347-01, EUB5347-02, EUB5347-03, EUB5369-01,</p>

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBLRMACT-SM (cont.)		EUB5369-02, EUB5369-03, EUB8090-01, EUB8090-02, EUB8090-03, EUB8090-04, EUB5399-01, EUB5399-02, EUB5399-03, EUB5418-01, EUB5418-02, EUCOLISEUM
FGCOLDCLEANER	Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278, Rule 278a and Rule 281(2)(h) or Rule 285(2)(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979.	EUHEAVY-CC-01, EUHEAVY-CC-02, EUBLUEGC-CC, EURADRICK-CC, EUTRANSPO-CC-01, EUTRANSPO-CC-02, EUWILSON-CC, EUCPP-CC
FGRULE287(2)(c)	Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.	EUPAINTPLANTOPS, EUPAINTTRANSP, EUPAINTPRINTING, EUPAINTWILSON, EUPRINTING

**FGB0260-03-04
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGB0260-03-04 consists of Boiler No. 3 and Boiler No. 4 each rated at 300 MMBTU/hr. heat input on natural gas or No. 2 fuel oil at the CPP.

Emission Units: EUB0260-03, EUB0260-04

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. SO ₂	0.56 lbs./MMBTU heat input from Boiler No. 3 and Boiler No. 4, individually, based on a 24-hr. period. ²	24-hour period (lbs./MMBTU)	EUB0260-03 EUB0260-04	SC VI.1 – VI.4	R 336.1401
	----- This is equivalent to using fuel oil with a 0.5% sulfur content and heat value of 18,000 BTU/lb. ²	----- Instantaneous (%S)			
2. NO _x	0.55 lbs./MMBTU heat input, from Boiler No. 3 and Boiler No. 4, individually, when firing natural gas and exhausting out south stack, based on a 24-hr. average ²	24-hour period	EUB0260-03 EUB0260-04	SC V.1 – V.5	40 CFR 52.21

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not fire any fuel in FGB0260-03-04 other than natural gas, while the boilers are exhausting through the south stack.² **(40 CFR 52.21 (c) & (d))**
2. The permittee shall only fire natural gas and/or No. 2 fuel oil in FGB0260-03-04 when exhausting through the north stack. **(R 336.1213(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x emission rates from FGB0260-03-04 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the NO_x emission rates from FGB0260-03-04, at a minimum, every five years from the date of the last test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted.² **(R 336.2001(4))**
4. In lieu of stack testing once within the permit term, permittee may provide one week of NO_x data when boilers 3 and 4 are running higher than normal operations to the District Supervisor explaining that NO_x data will be substituted for the NO_x stack test. If this option is selected, quarterly linearity tests as described in 40 CFR Part 75 will be provided along with NO_x data. **(40 CFR 60.330, R 336.2001, R 336.2003, R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor and record the fuel oil usage in FGB0260-03-04 on a daily basis in a manner and with instrumentation acceptable to the AQD.² **(40 CFR 52.21)**
2. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(40 CFR 52.21)**
3. The permittee shall monitor the density, sulfur and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Central Power Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(40 CFR 52.21)**
4. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the Central Power Plant demonstrating that the fuel sulfur content meets the requirement of SC I. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the

percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil.² **(R 336.1213(3), R 336.1401)**

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, including RATA reports, to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

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. SV-B0260-01	168 ²	North Stack: 250 ft. above a stack base elevation of 859 ft. ²	R 336.1225 R 336.2803 R 336.2804
2. SV-B0260-02	120 ²	South Stack: 159 ft. above a stack base elevation of 873 ft. ²	R 336.1225 R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGB0260-03-04. **(40 CFR Part 63, Subparts A and DDDDD)**
2. The permittee shall meet the monitoring, recordkeeping, and reporting requirements of the NOx SIP Call during the ozone season (May 1 through September 30). **(40 CFR Part 96, Subpart H)**

Footnotes:

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

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

**FGBT0260-CO
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGBT0260-CO is the Gas Turbine Cogeneration System at the CPP, which consists of two (2) - 4.5 MW gas turbines firing natural gas or fuel oil (Turbine No. 9 and Turbine No. 10), and two (2) - 65,000 steam/hr. heat recovery boilers firing natural gas or fuel oil (Boiler 7 and Boiler 8).

Emission Units: EUB0260-07, EUB0260-08, EUT0260-09, EUT0260-10

POLLUTION CONTROL EQUIPMENT

Water injection system regulating water-to-fuel ratio.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	The NOx emissions from the gas turbines, when firing natural gas at full load conditions, shall not exceed 53.3 parts per million by volume, (ppmv), corrected to 15% oxygen, on a dry basis. ²	Instantaneous	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10	SC V.1 – V.4	40 CFR 52.21(j)
2. NOx	The NOx emissions from the gas turbines, when firing No. 2 fuel oil at full load conditions, shall not exceed 114.8 ppmv, corrected to 15% oxygen, on a dry basis. ²	Instantaneous	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10	SC V.1 – V.4	40 CFR 52.21(j)
3. NOx	The NOx emission rate from the heat recovery steam generators (HRSG) shall not exceed 0.10 lbs./MMBTUs heat input, based on a 24-hr. average. ²	24-hour average	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10	SC V.1 – V.4	40 CFR 52.21(j)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
4. NOx	The NOx emissions from the gas turbines and HRSGs, hereinafter "cogeneration facility," shall not exceed 30.4 lbs./hr., when firing natural gas in the turbines, nor 47.3 lbs./hr., when firing No. 2 fuel oil in the turbines. ²	Hourly	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10	SC V.1 – V.4, SC V.9	40 CFR 52.21(j)
5. CO	The CO emission rate from the cogeneration facility shall not exceed 29.0 lbs./hr., when firing natural gas in the turbines, nor 72.0 lbs./hr., when firing No. 2 fuel oil in the turbines. ²	Hourly	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10.	SC V.5 - V.9	40 CFR 52.21(d)
6. SO2	The SO2 emission rate from the gas turbines, when firing No. 2 fuel oil, shall not exceed 0.155 lbs./MMBTUs heat input, based on a 24-hr. period. ²	24-hour period (lbs./MMBTUs)	EUB0260-07 EUB0260-08 EUT0260-09 EUT0260-10.	SC VI.2 - VI.4	40 CFR 52.21(j)
	----- This is equivalent to using oil with a 0.15% sulfur content and heat value of 138,000 BTU/gal. ²	Instantaneous (% S)			

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGBT0260-CO, when firing natural gas, unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.5 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. Performance criteria used to obtain representative data and the means by which an exceedance or excursion will defined are described in SC VI.3, below.² **(40 CFR 52.21(d), 40 CFR 64.6(c)(1) and (2))**
2. The permittee shall not operate FGBT0260-CO, when firing No. 2 fuel oil, unless the turbines are at full load conditions and unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.3 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation.² **(40 CFR 52.21(d), 40 CFR 64.6(c)(1) and (2))**

3. The permittee shall not operate FGBT0260-CO and EUTURBINE for more than 1,000 hours in aggregate between the gas turbines per 12-month rolling time period when firing No. 2 fuel oil.² **(40 CFR 52.21(b)(3), 40 CFR 63.6095(d))**
4. The permittee shall equip and maintain FGBT0260-CO with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in FGBT0260-CO. The minimum water-to-fuel ratio in lbs of water injected to lbs of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. The permittee shall verify the NOx emission rate from the FGBT260-CO, by testing, once within the five-year term of the permit.² **(40 CFR 60.330, R 336.2001, R 336.2003)**
2. The permittee shall submit a complete NOx test protocol to the AQD for approval at least 60 days prior to the anticipated test date.² **(R 336.2003)**
3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated NOx test date.² **(R 336.2001(4))**
4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the NOx test.² **(R 336.2001(5))**
5. The permittee shall verify the CO emission rate from the FGBT0260-CO, by testing, once within the five-year term of the permit.² **(40 CFR 60.330, R 336.2001, R 336.2003)**
6. The permittee shall submit a complete CO test protocol to the AQD for approval at least 60 days prior to the anticipated test date.² **(R 336.2001(3))**
7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated CO test date.² **(R 336.2001(4))**
8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the CO test.² **(R 336.2001(5))**
9. The permittee shall verify NOx and CO emission rates from the FGBT260-CO by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

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

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. 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. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in FGBT0260-CO meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:² **(40 CFR 60.334(h)(1), 40 CFR 60.334 (3)(i) and (ii))**
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 of this chapter is required.
2. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(40 CFR 52.21(c), (d), and (j))**
3. The permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Central Power Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(40 CFR 52.21(c), (d), and (j))**
4. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the Central Power Plant demonstrating that the fuel sulfur content meets the requirement of SC I. 6. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), 40 CFR 52.21(c), (d), and (j))**
5. The permittee shall equip and maintain FGBT0260-CO with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in FGBT0260-CO to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent.² **(40 CFR 60.334(a))**
6. The water to fuel ratio value shall be recorded by the CPP data acquisition system with, at a minimum, four data points equally spaced over each hour. Compliance with the water-to-fuel ratio values shall be determined by comparing the average of all data points for each operating hour with the minimum values described in. An excursion from the indicator range will be defined as two consecutive hours in which the average water-to-fuel ratio is less than the minimum values of 0.5 when firing natural gas and 0.3 when firing fuel oil. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. **(40 CFR 64.6 (c)(1)(i and ii) and (2))**
7. The permittee shall notify AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912.² **(R 336.1213(c)(3), R 336.1912)**
8. Pursuant to 40 CFR Part 64, the permittee shall conduct all monitoring specified in SC VI.5 – VI.6 and shall satisfy all requirements specified by 40 CFR 64.7 through 40 CFR 64.9. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
9. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). In the event that an exceedance or an excursion occurs, FGBT0260-CO shall be shut down or restored to the specified water-to-fuel ratio as quickly as possible. **(40 CFR 64.7(d))**

10. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. **(40 CFR 64.6(c)(3), 40 CFR 64.7(c))**
11. The permittee shall properly maintain the monitoring system, including keeping necessary parts for routine repair of the monitoring equipment. **(40 CFR 64.7(b))**
12. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan and any activities undertaken to implement a quality improvement plan, and other information such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions. **(40 CFR 64.9(b)(1))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. NO_x: Semiannual reporting of excess emissions required under 40 CFR 60.7(c) are defined as any one-hour period during which the average water-to-fuel ratio drops below the limits specified in FGBT0260-CO, SC I.1 – I.4, pursuant to and in a manner as specified in 40 CFR 60.334(c), and 40 CFR 60.7(c).² **(40 CFR 64(c)(1))**
5. SO₂: Semiannual reporting of excess emissions required under 40 CFR 60.7(c) are defined as any daily period during which the sulfur content of the fuel being fired exceeds the limit specified in FGBT0260-CO, SC I.3, pursuant to 40 CFR 60.334(c), and in a manner specified in 40 CFR 60.7 (c).² **(40 CFR 60.334(c)(1))**
6. Notification, as well as monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and GG. All notifications shall be submitted, in writing, to the District Supervisor. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.² **(40 CFR Part 60, Subparts A and GG)**
7. Each semiannual report of monitoring and deviations shall include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR 64.9(a)(2)(i))**
8. Each semiannual report of monitoring and deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR 64.9(a)(2)(ii))**

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. SV-B0260-02	120 ²	South Stack: 159 ft. ² above a stack base elevation of 873 ft. ²	R 336.1225 R 336.2803 R 336.2804

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of 40 CFR Part 64, as they apply to FGBT0260-CO. **(40 CFR Part 64)**
2. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the AQD and if necessary, submit a proposed modification of the ROP and CAM Plan to address the necessary monitoring changes. Such a modification may include but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. **(40 CFR 64.7(e))**
3. The permittee shall comply with all applicable requirements for the Standards of Performance for Stationary Gas Turbines, as specified in 40 CFR Part 60, Subparts A and GG, as they apply to FGBT0260-CO.² **(40 CFR Part 60, Subparts A and GG)**
4. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Combustion Turbines, as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to FGBT0260-CO.² **(40 CFR Part 63, Subparts A and YYYY)**

Footnotes:

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

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

FGB5102-01-02
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

FGB5102-01-02 consists of two (2), 24.8 MMBTU natural gas fired boilers, with No. 2 diesel fuel oil-firing capability for backup purposes, located at the Brehm Tower Building No. 5102.

Emission Units: EUB5102-01, EUB5102-02

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.89 lbs./hr. when firing Natural Gas ^{a2}	Hourly	Each boiler within FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d)
2. NOx	4.4 lbs./hr. when firing No. 2 fuel oil ^{b2}	Hourly	Each boiler within FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21 (c) & (d)
3. NOx	9.6 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)
4. CO	0.99 lbs./hr. when firing Natural Gas ^{c2}	Hourly	Each boiler within FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3)
5. CO	0.94 lbs./hr. when firing No. 2 fuel oil ^{d2}	Hourly	Each boiler within FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3)
6. CO	7.8 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-01-02	SC VI.1 & VI.2	R 336.1205(3)

^a The NOx limit is based on an emission factor of 3.67E-2 pound NOx per 1000 cubic feet of natural gas used.

^b The NOx limit is based on an emission factor of 26.5 pounds NOx per 1000 gallons of fuel oil used.

^c The CO limit is based on an emission factor of 4.08E-2 pound CO per 1000 cubic feet of natural gas used.

^d The CO limit is based on an emission factor of 5.6 pounds CO per 1000 gallons of fuel oil used.

Notwithstanding the preceding emission factors, alternate emission factors may be used upon approval in writing by the AQD District Supervisor.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Sulfur Content of Fuel Oil	0.05% by wt. ²	Instantaneous	FGB5102-01-02	SC VI.3	R 336.1205(3) R 336.1401 40 CFR Part 60 Subpart Dc
2. Natural gas	Natural gas usage shall not exceed 350,000,000 cu. ft./12-month rolling time period ² (This limit is based upon a higher heating value of 140,120 Btu/gal. of fuel oil and the default emission factors listed in the Emission Limit Table) ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-01-02	SC VI.1 & SC VI.4	R 336.1205(3) R 336.1225 R 336.1702(a) R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)
3. Fuel oil	Fuel oil usage shall not exceed 240,000 gal./12-month rolling time period ² (This limit is based upon a higher heating value of 140,120 Btu/gal. of fuel oil and the default emission factors listed in the Emission Limit Table) ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-01-02	SC VI.1 & SC VI.4	R 336.1205(3) R 336.1225 R 336.1702(a) 40 CFR 63.40 R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas and/or No. 2 fuel oil in FGB5102-01-02.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 63.40, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall continuously monitor in a satisfactory manner, the natural gas and fuel oil usage rates for each boiler in FGB5102-01-02 using respective fuel flow meters on a monthly basis.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**
2. The permittee shall monitor emissions, operating information and keep records for each boiler within FGB5102-01-02 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc. **(40 CFR Part 60, Subparts A and Dc)**
3. The permittee shall keep records of the sulfur content, in percent by weight, of the fuel oil burned in FGB5102-01-02. The permittee shall keep a separate record of the sulfur content for each shipment of fuel oil received.² **(40 CFR 72.7, 40 CFR Part 60, Subpart Dc, 40 CFR 60.42c(h), R 336.1205(3), R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**
4. The permittee shall keep in a satisfactory manner, monthly fuel use records for each boiler within FGB5102-01-02 as required by SC VI.1.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 60.48c(g), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (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. SV-BOILER-01	26 ²	180.67 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
2. SV-BOILER-02	26 ²	180.67 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGB5102-01-02.² **(R 336.1212(3), 40 CFR Part 60, Subparts A and Dc)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGB5102-01-02.² **(R 336.1212(3), 40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FGB5102-03-04
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGB5102-03-04 consists of two (2) 10 MMBTU/hr. natural gas-fired boilers, located at Brehm Tower, Building No. 5102.

Emission Units: EUB5102-03, EUB5102-04

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.98 lbs./hr. ^{a2}	Hourly	Each boiler within FGB5102-03-04	SC V1.1	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)
2. NOx	7.5 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-03-04	SC VI.1 & VI.2	R 336.1205(3) R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)
3. CO	0.82 lbs./hr. ^{b2}	Hourly	Each boiler within FGB5102-03-04	SC V1.1	R 336.1205(3)
4. CO	6.3 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB5102-03-04	SC VI.1 & VI.2	R 336.1205(3)

^a The NOx limit is based on an emission factor of 1.0E-1 pound NOx per 1000 cubic feet of natural gas used.

^b The CO limit is based on an emission factor of 8.4E-2 pound CO per 1000 cubic feet of natural gas used.

Notwithstanding the preceding emission factors, alternate emission factors may be used upon approval in writing by the AQD District Supervisor.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Natural gas	Natural gas usage shall not exceed 150,000,000 cu. ft./12-month rolling time period ² (This is based upon a natural gas higher heating value of 1,020 Btu/scf, and the default emission factors listed in the Emission Limit Table)	12-month rolling time period as determined at the end of each calendar month	FGB5102-03-04	SC VI.3	R 336.1205(3) R 336.1225 R 336.1702(a) R 336.2803 R 336.2804 40 CFR 52.21 (c) and (d)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only fire natural gas in the FGB5102-03-04.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor, in a satisfactory manner, the natural gas usage rates for each boiler within FGB5102-03-04 to record and maintain records of the amount of each fuel combusted during each calendar month.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d), 40 CFR 60.48c(g)(2))**
2. The permittee shall monitor emissions operating information and record keeping for each boiler within FGB5102-03-04 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc. **(40 CFR Part 60, Subparts A and Dc)**
3. The permittee shall keep in a satisfactory manner, monthly fuel use records for each boiler within FGB5102-03-04 as required by SC VI.1.² **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (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))**

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. SV-BOILER-03	20 ²	180 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
2. SV-BOILER-04	20 ²	180 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGB5102-03-04. **(40 CFR Part 60, Subparts A and Dc)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGB5102-03-04. **(40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FG3GENS-5102
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Three (3)-750 kW diesel fuel-fired RICE emergency generators, located at the Brehm Tower, Building No. 5102.

Emission Units: EUGEN-5102-01, EUGEN-5102-02, EUGEN-5102-03

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr ²	Hourly	Each diesel generator within FG3GENS-5102	SC VI.1 – VI.4	R 336.1205(3) 40 CFR 60.4205(b)
2. CO	0.80 g/kW-hr ²	Hourly	Each diesel generator within FG3GENS-5102	SC VI.1 – VI.4	R 336.1205(3) 40 CFR 60.4205(b)
3. PM	0.1 g/kW-hr ²	Hourly	Each diesel generator within FG3GENS-5102	SC IV.2	R 336.1205(3) 40 CFR 60.4205(b)

* Emission limits are based on weighted average per the EPA approved performance requirements of 40 CFR Part 60, Subpart IIII.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	The permittee shall meet the specifications and requirements of 40 CFR 80.510(b) for all of the current diesel fuels ²	Instantaneous	FG3GENS-5102	SC VI.2	R 336.1224 R 336.1225 40 CFR 60.4207(a) & (b) 40 CFR 80.510(b)
2. Sulfur content of diesel fuel	The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm ²	Instantaneous	FG3GENS-5102	SC VI.5	R 336.1224 R 336.1225 40 CFR 60.4207 40 CFR 80.510(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate FG3GENS-5102 in accordance with its manufacturer's written instructions or by operating procedures developed by the permittee that are approved by the manufacturer.² **(40 CFR Part 60, Subpart III, 40 CFR 60.4211)**
2. The permittee shall not change or revise the operating instructions, procedures or settings for FG3GENS-5102 unless permitted by the manufacturer in writing.² **(40 CFR Part 60, Subpart III, 40 CFR 60.4211)**
3. The permittee shall not operate any single emission unit of FG3GENS-5102 for more than 100 hours per engine per 12-month rolling time period as determined at the end of each calendar month during maintenance checks and readiness testing and not more than a total of 500 hours of operation per engine per rolling 12-month rolling time period as determined at the end of each calendar month, total.² **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip FG3GENS-5102 with a non-resettable hour meter to track the number of operating hours.² **(40 CFR Part 60, Subpart III, 40 CFR 60.4209)**
2. If any emission unit of FG3GENS-5102 contains a diesel particulate filter to comply with SC I.3, the filter must be installed with a backpressure monitor that notifies the owner/operator when the high backpressure limit of the engine is approached.² **(40 CFR Part 60, Subpart III, 40 CFR 60.4209)**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall monitor the hours of operation of FG3GENS-5102 on a monthly basis, in a manner that is acceptable to the District Supervisor, Air Quality Division.² **(R 336.1205(3))**
2. The permittee shall monitor in a satisfactory manner, the fuel oil usage for each diesel generator within FG3GENS-5102 on a monthly basis. The total diesel oil usage for all equipment combined (using delivery records and monthly tank level(s) and measure engine fuel use as the difference between total diesel fuel usage and that used by Boilers 1 and 2.² **(R 336.1205(3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**
3. The permittee shall keep, in a satisfactory manner, the following records on file and make them available to the Department upon request:² **(40 CFR Part 60, Subpart III, 40 CFR 60.4211)**
 - a. Engine certification according to 40 CFR Part 89 or Part 94, as applicable, for the same engine model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
 - b. Records of performance test results for each pollutant for a test conducted on FG3GENS-5102. The test must have been conducted correctly and used the same methods specified in 40 CFR Part 60, Subpart III.
 - c. Records of engine manufacturer data indicating compliance with these standards.
 - d. Records of control device vendor data indicating compliance with these standards, as applicable.
4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FG3GENS-5102. The records must indicate the total amount of fuel used in FG3GENS-5102.² **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

- The permittee shall keep records of the sulfur content, in percent by weight, of the fuel oil. The permittee shall keep a separate record of the sulfur content for each shipment of fuel oil received.² **(R 336.1205, R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))**

VII. REPORTING

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

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. SV-DGEN-01	10 ²	193 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SV-DGEN-02	10 ²	193 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SV-DGEN-03	10 ²	193 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

- The permittee shall comply with all requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FG3GENS-5102.² **(R 336.1212(3), 40 CFR Part 60, Subparts A and IIII)**
- FG3GENS-5102 complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.² **(R 336.1212(3), 40 CFR 63.6590(c))**

Footnotes:

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

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

**FG4GENS-5173
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FG4GENS-5173 consists of a group of four (4) identical 2 MW diesel fuel-fired RICE generators, used for emergency power, located at the C.S. Mott Children's and Women's Hospital, Building 5173.

Emission Units: EUGEN-5173-01, EUGEN-5173-02, EUGEN-5173-03, EUGEN-5173-04

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NMHC* + NO _x	6.4 grams per kilowatt-hour**2	Hourly	Each engine in FG4GENS-5173	SC VI.1 & VI.2	40 CFR 60.4205
2. CO	3.5 grams per kilowatt-hour**2	Hourly	Each engine in FG4GENS-5173	SC VI.1 & VI.2	40 CFR 60.4205
3. PM	0.20 gram per kilowatt-hour**2	Hourly	Each engine in FG4GENS-5173	SC VI.1 & VI.2	40 CFR 60.4205
4. NO _x ***	35.9 tpy ²	12-month rolling time period as determined at the end of each calendar month	FG4GENS-5173	SC VI.2 & VI.3	R 336.1205(1)(a) & (3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)

* NMHC = Nonmethane hydrocarbon (40 CFR 89.3)

** Emission limits are based on weighted average per the EPA-approved performance requirements of 40 CFR Part 60, Subpart IIII.

*** The NO_x limit is based on an emission factor of 5.58 grams NO_x per HP-hour, and 500 hours per year of operation at 2,919 HP per engine.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	The permittee shall meet the specifications and requirements of 40 CFR 80.510(b) for all of the current diesel fuels. ²	Instantaneous	FG4GENS-5173	SC VI.5	R 336.1224 R 336.1225 40 CFR 60.4207(a) & (b) 40 CFR 80.510(b)
2. Diesel fuel	The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm ²	Instantaneous	FG4GENS-5173	SC VI.5	R 336.1224 R 336.1225 40 CFR 60.4207 40 CFR 80.510(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate each engine in FG4GENS-5173 in accordance with its manufacturer's written instructions or by operating procedures developed by the permittee that are approved by the manufacturer.² **(40 CFR 60.4211)**
2. The permittee shall not change or revise the operating instructions, procedures or settings for any engine in FG4GENS-5173 unless permitted by the manufacturer in writing.² **(40 CFR 60.4211)**
3. The permittee shall not operate any engine in FG4GENS-5173 for maintenance checks and readiness testing for more than 100 hours per 12-month rolling time period as determined at the end of each calendar month, except as allowed by 40 CFR 60.4211(e).² **(40 CFR 60.4211(e))**
4. The permittee shall not operate any engine in FG4GENS-5173 for any purpose for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG4GENS-5173 with a non-resettable hour meter before startup of the engine.² **(40 CFR 60.4209(a))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) and (3), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
2. The permittee shall monitor in a satisfactory manner the hours of operation for each engine in FG4GENS-5173 on a monthly basis.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
3. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NO_x emission calculation records for FG4GENS-5173, as required by SC I.4. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) and (3), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
4. The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of each engine in FG4GENS-5173. Each log entry shall state whether operation was for maintenance checks and readiness testing or for some other purpose. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
5. The permittee shall keep records of the sulfur content, in percent by weight, of the diesel fuel used in FG4GENS-5173. The permittee shall keep a separate record of the sulfur content for each shipment of diesel fuel received. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205, R 336.1401, 40 CFR 52.21 (c) and (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))**

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. SV-DGEN5173-01	20 ²	164.2 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. SV-DGEN5173-02	20 ²	164.2 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
3. SV-DGEN5173-03	20 ²	164.2 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
4. SV-DGEN5173-04	20 ²	164.2 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FG4GENS-5173.² **(R 336.1212(3), 40 CFR Part 60, Subparts A and IIII)**
2. FG4GENS-5173 complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.² **(R 336.1212(3), 40 CFR 63.6590(c))**

Footnotes:

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

**FG10DGENS-2MW
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FG10DGENS-2MW consists of ten (10)-2,000 kW diesel fuel-fired RICE generators for emergency power generation, located at the Medical Information Technology Center, the Cardiovascular Center, the Biological Sciences Research Building, The University of Michigan Hospital, and the Medical Center Information Technology Building.

Emission Units: EUMITC-GEN1, EUMITC-GEN2, EUMITC-GEN3, EUCVC-GEN1, EUCVC-GEN2, EUBSRB-GEN1, EUBSRB-GEN2, EUUMH-GEN4, EUMCIT-GEN1, EUMCIT-GEN2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	6.9 gram/HP-hr*2	Hourly	Each engine in FG10DGENS-2MW	SC VI.1 & VI.2	40 CFR 60.4205 R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
2. CO	8.5 gram/HP-hr*2	Hourly	Each engine in FG10DGENS-2MW	SC VI.1 & VI.2	40 CFR 60.4205 R 336.2804 40 CFR 52.21(d)
3. PM	0.4 gram/HP-hr*2	Hourly	Each engine in FG10DGENS-2MW	SC VI.1 & VI.2	40 CFR 60.4205 R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
4. VOC	1.0 gram/HP-hr*2	Hourly	Each engine in FG10DGENS-2MW	SC VI.1 & VI.2	40 CFR 60.4205 R 336.1205(1)(a) & (3) R 336.2804 40 CFR 52.21(d)
5. NOx	30.6 tons per year ²	12-month rolling time period as determined at the end of each calendar month	EUMITC-GEN1 EUMITC-GEN2 EUMITC-GEN3	SC VI.2 & VI.3	R 336.1205(1)(a) & (3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
6. NOx	20.4 tons per year ²	12-month rolling time period as determined at the end of each calendar month	EUCVC-GEN1 EUCVC-GEN2	SC VI.2 & VI.3	R 336.1205(1)(a) & (3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
7. NOx	22.0 tons per year ²	12-month rolling time period as determined at the end of each calendar month	EUBSRB-GEN1 EUBSRB-GEN2	SC VI.2 & VI.3	R 336.1205(1)(a) & (3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)
8. NOx	22.4 tons per year ²	12-month rolling time period as determined at the end of each calendar month	EUMCIT-GEN1 EUMCIT-GEN2	SC VI.2 & VI.3	R 336.1205(1)(a) & (3) R 336.2803 R 336.2804 40 CFR 52.21(c) & (d)

* Emission limits are based on weighted average per the EPA-approved performance requirements of 40 CFR Part 60, Subpart IIII.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	The permittee shall meet the specifications and requirements of 40 CFR 80.510(b) for all of the current diesel fuels. ²	Instantaneous	FG10DGENS-2MW	SC VI.5	R 336.1224 R 336.1225 40 CFR 60.4207(a) & (b) 40 CFR 80.510(b)
2. Diesel fuel	The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm ²	Instantaneous	FG10DGENS-2MW	SC VI.5	R 336.1224 R 336.1225 40 CFR 60.4207 40 CFR 80.510(b)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate each engine in FG10DGENS-2MW in accordance with its manufacturer's written instructions or by operating procedures developed by the permittee that are approved by the manufacturer.² **(40 CFR 60.4211)**
2. The permittee shall not change or revise the operating instructions, procedures or settings for any engine in FG10DGENS-2MW unless permitted by the manufacturer in writing.² **(40 CFR 60.4211)**
3. The permittee shall not operate any engine in FG10DGENS-2MW for maintenance checks and readiness testing for more than 100 hours per 12-month rolling time period as determined at the end of each calendar month, except as allowed by 40 CFR 60.4211(e).² **(40 CFR 60.4211(e))**
4. The permittee shall not operate any engine in FG10DGENS-2MW for any purpose for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FG10DGENS-2MW with a non-resettable hour meter before startup of the engine.² **(40 CFR 60.4209(a))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a) and (3), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
2. The permittee shall monitor in a satisfactory manner the hours of operation for each engine in FG10DGENS-2MW on a monthly basis.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

3. The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx emission calculation records for FG10DGENS-2MW, as required by SC I.5, I.6, I.7 and I.8. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) and (3), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
4. The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of each engine in FG10DGENS-2MW. Each log entry shall state whether operation was for maintenance checks and readiness testing or for some other purpose. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205(1)(a) and (3), R 336.1225, R 336.1702(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**
5. The permittee shall keep records of the sulfur content, in percent by weight, of the diesel fuel used in FG10DGENS-2MW. The permittee shall keep a separate record of the sulfur content for each shipment of diesel fuel received. The permittee shall keep all records on file and make them available to the Department upon request.² **(R 336.1205, R 336.1401, 40 CFR 52.21 (c) and (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))**

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. SV- MITC-GEN1	24 ²	17 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
2. SV- MITC-GEN2	24 ²	17 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
3. SV- MITC-GEN3	24 ²	17 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
4. SV- CVC-GEN1	24 ²	133 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
5. SV- CVC-GEN2	24 ²	133 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
6. SV-BSRB-GEN1	24 ²	126 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
7. SV-BSRB-GEN2	24 ²	126 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
8. SV-UMH-GEN4	35.8 ²	50 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
9. SV-MCIT-GEN1	24 ²	15.3 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)
10. SV-MCIT-GEN2	24 ²	15.3 ²	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FG10DGENS-2MW.² **(R 336.1212(3), 40 CFR Part 60, Subparts A and IIII)**
2. FG10DGENS-2MW complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.² **(R 336.1212(3), 40 CFR 63.6590(c))**

Footnotes:

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

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

**FGBOILERS1A&1B
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGBOILERS1A&1B consists of Clayton Steam Generator Boiler No. 1A and Boiler No. 1B, which are natural gas-fired boilers with No. 2 fuel oil capability, each rated at a capacity of 19.9 MMBTU/hr (17,150 lbs. steam/hr.), providing a fast response source of steam at the NCRC Powerhouse facility.

Emission Units: EUBOILER1A, EUBOILER1B

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.14 pound per million BTUs heat input for each boiler ²	30-day rolling time period	EUBOILER1A, and EUBOILER1B, each.	SC VI.4 and emission factors*	40 CFR 52.21 (c) and (d)
2. NOx	1.02 tons per month for each boiler ²	30-day rolling time period	EUBOILER1A, and EUBOILER1B, each.	SC VI.1 & VI.2 and emission factors*	40 CFR 52.21 (c) and (d)

*EMISSION FACTORS:

No. 2 Fuel Oil: 20 lbs. NOx/1000 gallons fuel oil (AP-42 Table 1.3-1 dated 9/98);

Natural Gas: 140 lbs. NOx/MMscf natural gas (AP-42 Emission Factor from 1985). Alternatively, other emission factors as approved by EGLE District Supervisor or the most recent emission factor verified by compliance stack testing may be used.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 2 Fuel Oil	0.05% Sulfur content by weight ²	30-day rolling time period	FGBOILERS1A&1B	SC VI.1, SC VI.2 & SC VI.3	R 336.1401, 40 CFR 52.21 (c) and (d)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(R 336.1401)**
2. The permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the NCRC during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(R 336.1401)**
3. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the NCRC demonstrating that the fuel sulfur content meets the requirement of SC II. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401)**
4. The permittee shall keep monthly and previous 12-month NO_x calculation records for FGBOILERS1A&1B. The permittee will show compliance with the SC I.1, NO_x emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data at the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.² **(R 336.1213(3), 40 CFR 52.21 (c) and (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))**
4. Semiannual reports of Certifications: The permittee will submit semiannual reports of sulfur content certifications required to be reported pursuant to 40 CFR 60.48c 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))**

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. SV-BOILERS1A&1B shared by both steam generators	NA	87 ²	40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGBOILERS1A&1B.² **(R 336.1213(3), 40 CFR Part 60, Subparts A and Dc)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGBOILERS1A&1B.² **(R 336.1213(3), 40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FGBOILERS2&3
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGBOILERS2&3 consists of Boiler No. 2 and Boiler No. 3, which are each 63.2 MMBTU/hr. (50,000 lbs. steam/hr.) natural gas-fired boilers with No. 2 fuel oil capability, producing steam at the NCRC Powerhouse facility.

Emission Units: EUBOILER2, EUBOILER3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.14 pound per million Btus heat input ²	30-day rolling time period	EUBOILER2, EUBOILER3	SC VI.4 and emission factors*	40 CFR 52.21 (c) and (d)
2. NOx	3.23 tons per month ²	30-day rolling time period	EUBOILER2, EUBOILER3	SC VI.4 and emission factors*	40 CFR 52.21 (c) and (d)

***EMISSION FACTORS**

No. 2 Fuel Oil: 20 lbs. NOx/1000 gallons fuel oil (AP-42 Table 1.3-1 dated 9/98);

Natural Gas: 140 lbs. NOx/MMscf natural gas (AP-42 Emission Factor from 1985). Alternatively, other emission factors as approved by EGLE District Supervisor or the most recent emission factor verified by compliance stack testing may be used.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. No. 2 Fuel Oil	0.10 % Sulfur content by weight ²	30 day rolling time period	FGBOILERS2&3	SC VI.1, VI.2 & VI.3	R 336.1401 40 CFR 60, Subpart Dc

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Upon the request of the District Supervisor, the permittee shall verify NOx emission rates from FGBOILERS2&3 by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District

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

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received.² **(R 336.1401, 40 CFR 60.42c)**
2. The permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the NCRC during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD.² **(R 336.1401, 40 CFR 60.42c)**
3. In lieu of taking a representative sample of the fuel oil fired, the permittee shall maintain a complete record of the fuel oil specifications and/or fuel analysis for each delivery, or storage tank of fuel oil used in the NCRC demonstrating that the fuel sulfur content meets the requirement of SC II. 1. These records may include purchase records for ASTM specification fuel oil, specifications or analyses provided by the vendor at the time of delivery, analytical results from laboratory testing, or any records adequate to demonstrate compliance with the percent sulfur limit in fuel oil. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1213(3), R 336.1401, 40 CFR 60.42c)**
4. The permittee shall keep monthly and previous 12-month NO_x calculation records for FGBOILERS2&3. The permittee will show compliance with the SC I.1, NO_x emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data at the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.² **(R 336.1213(3), 40 CFR 52.21 (c) and (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))**
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))**

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. SV-BLR2 (Boiler 2 stack)	NA	80 ²	40 CFR 52.21 (c) and (d)
2. SV-BLR3 (Boiler 3 stack)	NA	80 ²	40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGBOILERS5&6.² **(R 336.1213(3), 40 CFR Part 60, Subparts A and Dc)**
2. The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGBOILERS5&6.² **(R 336.1213(3), 40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FGBOILERS5&6
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGBOILERS5&6 - This flexible group consists of Boiler No. 5 and Boiler No. 6 at the NCRC Powerhouse. Boilers are a source of steam for the facility. Boilers fire natural gas or No. 2 fuel oil. Each boiler has natural gas maximum capacity at 72.0 MMBTU/hr and No. 2 fuel oil maximum capacity at 70 MMBTU/hr.

Emission Units: EUBOILER5, EUBOILER6

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.14 pound per million BTUs heat input ²	30-day rolling time period	FGBOILERS5&6	SC VI.2 & VI.3 and emission factors*	40 CFR 52.21(c) and (d)
2. NOx	3.58 tons per month ²	30-day rolling time period	EUBOILER5 EUBOILER6	SC VI.2 & VI.3 and emission factors*	40 CFR 52.21(c) and (d)
3. Opacity	20% as specified in 40 CFR 60.43(c) ²	6-minute average	EUBOILER5 EUBOILER6	SC III.1 & SC V.1 – V.2	40 CFR Part 60, Subparts A and Dc

***EMISSION FACTORS:**

No. 2 Fuel Oil: 20 lbs. NOx/1000 gallons #2 fuel oil (Manufacturer data plus 20% and AP-42 Table 1.3-1 dated 9/98); Natural Gas: 58.6 lbs. NOx/MMCF (Manufacturer data plus 20%). Or other emission factors as approved by EGLE District Supervisor.

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Fuel Oil No. 2	0.10% Sulfur content by weight ²	30-day rolling time period.	FGBOILERS5&6	SC VI.1	R 336.1401 40 CFR Part 60, Subparts A and Dc

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee will operate FGBOILERS5&6 in such a manner that the opacity limits as provided in 40 CFR 60.43c(c) will not be exceeded. The opacity standard applies at all times except during startup, shutdown, or malfunction.² **(40 CFR Part 60, Subparts A and Dc)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Upon the request of the District Supervisor, the permittee shall verify NOx and Opacity emission rates from FGBOILERS5&6 by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A and B

An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)**

2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall obtain fuel oil certification from the supplier for sulfur content of fuel oil used in FGBOILERS5&6. The permittee will provide sulfur content certification for fuel oil and record daily fuel combustion amounts as required to comply with all the applicable requirements in 40 CFR Part 60, Subparts A and Dc.² **(R 336.1213(3), 40 CFR 52.21 (c) and (d), 40 CFR 60, Subparts A and Dc)**
2. The permittee shall keep monthly and previous 12-month NOx calculation records for FGBOILERS5&6. The permittee will show compliance with the SC I.1, NOx emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data at the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors. **(R 336.1213(3), 40 CFR 52.21 (c) and (d))**
3. Monitoring and recording of emissions and operating information for EUBOILER5 and EUBOILER6 is required to comply with all the applicable requirements in the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc. All source emissions data and operating data required to be reported by 40 CFR 60.48c (Subpart Dc) shall be submitted in an acceptable format and 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 30.² **(40 CFR Part 60, Subparts A and Dc)**

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))**

- 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))**

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. SVBOILER5 (Boiler No. 5 stack)	NA	87 ²	40 CFR 52.21 (c) and (d)
2. SVBOILER6 (Boiler No. 6 stack)	NA	87 ²	40 CFR 52.21 (c) and (d)

IX. OTHER REQUIREMENT(S)

- The permittee shall comply with all applicable requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to FGBOILERS5&6.² **(R 336.1213(3), 40 CFR Part 60, Subparts A and Dc)**
- The permittee shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, as specified in 40 CFR Part 63, Subparts A and DDDDD, as they apply to FGBOILERS5&6.² **(R 336.1213(3), 40 CFR Part 63, Subparts A and DDDDD)**

Footnotes:

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

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

**FGB85-EMERGENS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGB85-EMERGENS consists of two (2) diesel, emergency RICE generators of 2.25 MW capacity each, located at NCRC Powerhouse.

Emission Units: EUB85-EMERGEN1, EUB85-EMERGEN2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Nitrogen Oxides (NOx)	15.4 tpy ²	12-month rolling time period as determined at the end of each calendar month	FGB85-EMERGENS	SC VI.4	R 336.1205(1)(a) R 336.1205(3)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Diesel fuel	Only allowed fuel ²	Instantaneous	FGB85-EMERGENS	SC VI.4	R 336.1205(1)(a) R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUB85-EMERGEN1 or EUB85-EMERGEN2 for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month.² (R 336.1205(1)(a), R 336.1205(3))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall equip and maintain each of the emergency generators in FGB85-EMERGENS with a device to monitor the hours of operation.² (R 336.1205 (1)(a), R 336.1205(3))
2. The permittee shall monitor the hours of operation for FGB85-EMERGENS on a monthly basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.² (R 336.1205(1)(a), R 336.1205(3))

3. The permittee shall keep records of the hours of operation of FGB85-EMERGENS on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month. All records shall be kept on file for a period of at least five years and made available to the Department upon request.² **(R 336.1205 (1)(a), R 336.1205(3))**
4. The permittee shall calculate monthly and 12-month rolling time period NOx emissions from FGB85-EMERGENS and shall keep these calculations on file for a period of at least five years and make them available to the Department upon request.² **(R 336.1205(1)(a), R 336.1205(3))**

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to FGB85-EMERGENS.² **(R 336.1213(3), 40 CFR Part 63, Subparts A and ZZZZ)**

Footnotes:

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

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

**FGPATHDGENS
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two 1500 kW diesel-fueled emergency engines manufactured in 2017, with a displacement of 4.3 liters/cylinder. Located in NCRC Pathology.

Emission Units: EUPATH-DGEN1, EUPATH-DGEN2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	9.2 g/kW-hr for each engine ²	Hourly	FGPATHDGENS	SC VI.2	40 CFR 60.4202(a)(2), Table 1 of 40 CFR 89.112
2. HC	1.3 g/kW-hr for each engine ²	Hourly	FGPATHDGENS	SC VI.2	40 CFR 60.4202(a)(2), Table 1 of 40 CFR 89.112
3. NMHC + NOx	6.4 g/kW-hr for each engine ²	Hourly	FGPATHDGENS	SC VI.2	40 CFR 60.4202(a)(2), Table 1 of 40 CFR 89.112
4. CO	3.5 g/kW-hr for each engine ²	Hourly	FGPATHDGENS	SC VI.2	40 CFR 60.4202(a)(2), Table 1 of 40 CFR 89.112
5. PM	0.20 g/kW-hr for each engine ²	Hourly	FGPATHDGENS	SC VI.2	40 CFR 60.4202(a)(2), Table 1 of 40 CFR 89.112

II. MATERIAL LIMIT(S)

- The permittee shall burn only diesel fuel, in FGPATHDGENS with the maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent.² (40 CFR 60.4207, 40 CFR 80.510(b))

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate either engine in FGPATHDGENS 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 hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2.² (R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))

2. The permittee may operate each engine in FGPATHDGENS for no 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.² **(40 CFR 60.4211(f)(2))**
3. Each engine in FGPATHDGENS may operate 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 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), 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.² **(40 CFR 60.4211(f)(3))**
4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine in FGPATHDGENS:
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
 - b. Change only those emission related settings that are permitted by the manufacturer, and
 - c. Meet the requirements as specified in 40 CFR 89, 94, and/or 1068, as it applies to you.

If you do 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.² **(40 CFR 60.4211(a))**

5. 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 for each engine in FGPATHDGENS and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.² **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGPATHDGENS with non-resettable hours meters to track the operating hours.² **(R 336.1225, 40 CFR 60.4209)**
2. The permittee shall install, maintain, and operate each engine in FGPATHDGENS certified to the emission standards in 40 CFR 60.4205(b), as described in SC I.1, I.2, I.3, I.4, I.5, for the same model year and NFPA nameplate engine power for each engine in FGPATHDGENS. The engine must be installed and configured according to the manufacturer's emission-related specifications.² **(40 CFR 60.4202, 40 CFR 60.4205)**

V. TESTING/SAMPLING

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

1. By February 2, 2019, the permittee shall conduct an initial performance test for each engine in FGPATHDGENS. to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR Part 60, Subpart IIII. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 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. Subsequent performance testing shall be conducted every 8,760 hours of engine operation or 3 years, whichever comes first.² **(40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60, Subpart IIII)**
2. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 7 days of the time and place before performance tests are conducted. **(R 336.1213(3), R 336.2001(4))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep all required records and calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(40 CFR 52.21 (c) & (d), R 336.1225, 40 CFR Part 60, Subpart IIII)**
2. For each engine in FGPATHDGENS, the permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification documentation indicating that each engine in FGPATHDGENS meets the applicable requirements contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60, Subpart IIII. If any engine in FGPATHDGENS becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request.² **(40 CFR 60.4211)**
3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine in FGPATHDGENS, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of each engine in FGPATHDGENS, including what classified the operation as emergency and how many hours are spent for non-emergency operation.² **(40 CFR 60.4211, 40 CFR 60.4214)**
4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGPATHDGENS, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil.² **(40 CFR 80.510(b))**

VII. REPORTING

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

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. SVENGINE1	14 ²	34.5 ²	R 336.1225 40 CFR 52.21 (c) & (d)
2. SVENGINE2	14 ²	34.5 ²	R 336.1225 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall submit a notification specifying whether each engine in FGPATHDGENS 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.² **(40 CFR Part 60, Subpart IIII)**
2. The permittee shall comply with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in in 40 CFR Part 60, Subparts A and IIII, as they apply to FGPATHDGENS.² **(R 336.1213(3), 40 CFR Part 60, Subparts A & IIII)**
3. The permittee shall comply with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to FGPATHDGENS.² **(R 336.1213(3), 40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6595)**

Footnotes:

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

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

**FGCITENGINES
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Three 2,682 hp (2000 kW) diesel-fueled emergency engines.

Emission Units: EUCIT01, EUCIT02, EUCIT03.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly	Each engine in FGCITENGINES	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112
2. CO	3.5 g/kW-hr	Hourly	Each engine in FGCITENGINES	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112
3. PM	0.20 g/kW-hr	Hourly	Each engine in FGCITENGINES	SC VI.2	40 CFR 60.4205(b), Table 1 of 40 CFR 89.112

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in FGCITENGINES with the maximum sulfur content of 15 ppm (0.0015 percent) by weight, and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent.² **(R 336.1205(1)(a), 40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each engine in FGCITENGINES 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 hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2.² **(R 336.1205(1)(a), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))**
2. The permittee may operate each engine in FGCITENGINES for no 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. Each engine in FGCITENGINES may operate 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. Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-

emergency situations cannot be used for peak shaving or demand response, or to generate income for the permittee to supply non-emergency power as part of a financial arrangement with another entity.² **(40 CFR 60.4211(a) and (c))**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year and maximum engine power, the permittee shall meet the following requirements for each engine in FGCITENGINES:
 - a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.
 - b. Change only those emission-related settings that are permitted by the manufacturer.
 - c. Meet the requirements as specified in 40 CFR 89, 94, and/or 1068, as they apply to you.

If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine may be considered a non-certified engine.² **(40 CFR 60.4211(g)(3), 40 CFR 60.4212)**

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 for FGCITENGINES and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions.² **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGCITENGINES with non-resettable hours meters to track the operating hours.² **(R 336.1205(1)(a), R 336.1225, 40 CFR 60.4209)**
2. The maximum rated power output of each engine in each engine in FGCITENGINES shall not exceed 2000 kW (2682 HP), as certified by the equipment manufacturer.² **(R 336.1205(1)(a), R 336.1225, 40 CFR 60.4202, 40 CFR 89.112(a))**

V. TESTING/SAMPLING

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

1. If the engine is 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 within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after you change 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 60.4212.
 - c. Conduct subsequent performance testing every 8,760 hours of engine operation or every three years, whichever comes first, thereafter, to demonstrate compliance with the applicable emission standards.

No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test.² **(40 CFR 60.4211(g)(3), 40 CFR 60.4212)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.² **(R 336.1205(1)(a), 40 CFR 52.21 (c) & (d))**
2. The permittee shall keep, in a satisfactory manner, the following records for each engine in FGCITENGINES:
 - a. For each certified engine: The permittee shall keep records of the manufacturer certification documentation.

- b. For each uncertified engine: The permittee shall keep records of testing required in SC V.1.

The permittee shall keep all records on file and make them available to the Department upon request.²
(40 CFR 60.4211)

3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for each engine in FGCITENGINES:
- For each certified engine: The permittee shall keep records of the manufacturer's emission-related written instructions, and records demonstrating that the engine has been maintained according to those instructions, as specified in SC III.3.
 - For each uncertified engine: The permittee shall keep records of a maintenance plan, as required by SC III.4, and maintenance activities.

The permittee shall keep all records on file and make them available to the Department upon request.²
(40 CFR 60.4211)

4. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine in FGCITENGINES, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of each engine in FGCITENGINES, including what classified the operation as emergency.² **(R 336.1205(1)(a), 40 CFR 60.4211, 40 CFR 60.4214)**
5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGCITENGINES, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil.² **(R 336.1205(1)(a), 40 CFR 60.4207, 40 CFR 80.510(b))**

VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each engine in FGCITENGINES.² **(R 336.1201(7)(a))**
- The permittee shall submit a notification specifying whether each engine in FGCITENGINES 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.² **(40 CFR Part 60, Subpart IIII)**
- The permittee shall submit an initial notification as required in 40 CFR 63.6645(f) for each engine in FGCITENGINES. The notification must include the information in 40 CFR 63.9(b)(2)(i)-(v):
 - The name and address of the owner or operator.
 - The address (i.e., physical location) of each engine in FGCITENGINES.
 - An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date.

- d. A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted.
- e. A statement of whether the affected source is a major source or an area source.

The notification must also include a statement that each engine in FGCITENGINES has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).² **(40 CFR 63.9(b)(2)(i)-(v), 40 CFR 63.6590(b)(1), 40 CFR 63.6645(f))**

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. SVCIT01	22 ¹	221.5 ¹	R 336.1225
2. SVCIT02	22 ¹	221.5 ¹	R 336.1225
3. SVCIT03	22 ¹	221.5 ¹	R 336.1225

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 IIII, as they apply to each engine in FGCITENGINES.² **(40 CFR Part 60, Subparts A & IIII)**
- 2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and ZZZZ, as they apply to each engine in FGCITENGINES.² **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6585)**

Footnotes:

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

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

**FGEMERG-III
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGEMERG-III consists of emergency, stationary, compression ignition (CI) internal combustion engines (ICE), which commenced construction after July 11, 2005, where the stationary, CI ICE are manufactured after April 1, 2006, and are not fire pump engines, which are subject to 40 CFR Part 60, Subpart IIII-The Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. For the purpose of Subpart IIII, the date that construction commences is the date the engine is ordered by the owner or operator.

Emission Units: EUGEN-5102-01, EUGEN-5102-02, EUGEN-5102-03, EUGEN-5173-01, EUGEN-5173-02, EUGEN-5173-03, EUGEN-5173-04, EUMITC-GEN1, EUMITC-GEN2, EUMITC-GEN3, EUCVC-GEN1, EUCVC-GEN2, EUMCIT-GEN1, EUMCIT-GEN2, EUB800-GEN1, EUBOTGARDEN, EUPATH-DGEN1, EUPATH-DGEN2, EUCIT01, EUCIT02, EUCIT03

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	See Table 1 and/or Table 2 Subpart IIII	instantaneous	FGEMERG-III	SC V1	40 CFR Part 60, Subpart IIII
2. HC	See Table 1 and/or Table 2 Subpart IIII	instantaneous	FGEMERG- IIII	SC V1	40 CFR Part 60, Subpart IIII
3. NMHC+NOx	See Table 1 and/or Table 2 Subpart IIII	instantaneous	FGEMERG-III	SC V1	40 CFR Part 60, Subpart IIII
4. CO	See Table 1 and/or Table 2 Subpart IIII	instantaneous	FGEMERG-III	SC V1	40 CFR Part 60, Subpart IIII
5. PM	See Table 1 and/or Table 2 Subpart IIII	instantaneous	FGEMERG-III	SC V1	40 CFR Part 60, Subpart IIII

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NR Diesel Fuel	Sulfur content shall not exceed 15 ppm	Instantaneous	FGEMERG-III	SC V.1	40 CFR 60.4207(b) 40 CFR 80.510(b)(1)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 60.4211(f)(1))**
2. The permittee may operate each engine in FGEMERG-III for no 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. **(40 CFR 60.4211(f)(2))**

3. Each engine in FGEMERG-III may operate 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 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), 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. **(40 CFR 60.4211(f)(3))**
4. The owner or operator must purchase an engine certified according to 40 CFR Part 89 or 40 CFR Part 94 as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. **(40 CFR 60.4211(b)(1))**
5. The owner or operator must operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you. **(40 CFR 60.4211(a)(1), (2), and (3))**
6. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine. **(40 CFR 60.4206)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The owner or operator shall equip and maintain each engine in FGEMERG-III with non-resettable hour meters to track the operating hours. **(40 CFR 60.4209(a))**

V. TESTING/SAMPLING

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

1. The owner or operator is not required to conduct testing of CI ICE if certified by the equipment manufacturer as required by 40 CFR 60.4210. **(40 CFR 60.4210)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep records of the following for FGEMERG-III:
 - a. All notifications. **(40 CFR 60.4211(b))**
 - b. All maintenance performed on the engine. **(40 CFR 60.4211(b))**
 - c. If using a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards of 40 CFR Part 60, Subpart IIII. **(40 CFR 60.4211(b))**
 - d. If not using a certified engine, documentation that the engine meets the emission standards, which shall be demonstrated with an initial performance test within one year of engine installation. **(40 CFR 60.4211(b))**
 - e. The permittee shall keep a complete copy of the diesel fuel analysis including the sulfur content in percent, as supplied by the vendor for each shipment of diesel fuel received. **(40 CFR 60.4207 (a) and (b))**

VII. REPORTING

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

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and IIII, as they apply to FGEMERG-IIII. **(40 CFR Part 60, Subparts A and IIII)**
2. FGEMERG-IIII complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII. **(40 CFR 63.6590(c))**

**FGEMERG-JJJJ
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

FGEMERG-JJJJ consists of emergency, stationary, spark ignition (SI) internal combustion engines (ICE) with a maximum engine power greater than 19 kW (25 HP) that commence construction on and after January 1, 2009, which are subject to 40 CFR Part 60, Subpart JJJJ, the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. For the purposes of this Subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Emission Units: EUGERST, EUCSSB, EUCOUZENS, EUCCLITTLE, EUHILLSTPARK, EURUTHVEN, EUSOUTHALL, EUTHOMPSONPK, EUVARSITYDR, EUGLENPARKING, EUWALLPARKING, EUMUSIC, EUROSS500KW, EUROSS350KW, EUVARSITY550KW, EUGGBROWN150KW, EUNCACNATGAS, EULORCH, EUGEN-ISR, EUGENSOUTHQUAD, EUBSB-01, EUBSB-02, EUMUNGER-02, EUNCRCB073, EUWESTQUAD, EUROBOTICS, EUMEDCTRPARKING, EUKRAUS, EUSOUTHPERFORMANCE.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx for each engine 25<HP<130	10 g/HP-hr or NA ppmvd @ 15% O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1
2. NOx for each engine HP>=130	2.0 g/HP-hr or 160 ppmvd @ 15% O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1
3. CO for each engine 25<HP<130	387 g/HP-hr or NA ppmvd @ 15% O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1
4. CO for each engine HP>=130	4.0 g/HP-hr or 540 ppmvd @ 15% O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. VOC for each engine 25<HP<130	NA g/HP-hr or NA ppmvd @ 15 % O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1
6. VOC for each engine HP>=130	1.0 g/HP-hr or 86 ppmvd @ 15% O2	Instantaneous	FGEMERG-JJJJ	SC V.1 & V.2	40 CFR Part 60, Subpart JJJJ, 40 CFR 60.4233(d) and Table 1

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. There is no time limit on the use of emergency stationary RICE in emergency situations. **(40 CFR 60.4243(d)(1))**
2. The permittee may operate each engine in FGEMERG-JJJJ for no 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. **(40 CFR 60.4243(d)(2))**
3. Each engine in FGEMERG-JJJJ may operate 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 40 CFR 60.4243(d)(3)(i), 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. **(40 CFR 60.4243(d)(3))**
4. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. **(40 CFR 60.4233(e))**
5. If you are an owner or operator of a stationary SI ICE that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI ICE and control device according to the manufacturer’s written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). **(40 CFR 60.4243(f))**
6. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. **(40 CFR 60.4243(g))**

7. If you are an owner/operator of a stationary SI ICE with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section. **(40 CFR 60.4243(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Starting on July 1, 2010, if the emergency stationary SI ICE that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. **(40 CFR 60.4237(a))**
2. Starting on January 1, 2011, if the emergency stationary SI ICE that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. **(40 CFR 60.4237(b))**
3. If you are an owner or operator of an emergency stationary SI ICE that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine. **(40 CFR 60.4237(c))**

V. TESTING/SAMPLING

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

1. If you are an owner or operator of a stationary SI ICE that is manufactured after July, 1, 2008, and must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI ICE will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section. **(40 CFR 60.4243(a))**
2. If you are an owner or operator of a stationary SI ICE and must comply with the emission standards specified in 40 CFR 60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) or this section. **(40 CFR 60.4243(b))**
 - a. Purchasing an engine certified according to procedures specified in this Subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph 40 CFR 60.4243(a). **(40 CFR 60.4233(b)(1))**
 - b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to paragraphs 40 CFR 60.4243(b)(2)(i) and (ii). **(40 CFR 60.4233(b)(2))**
 - i. If you are an owner or operator of a stationary SI ICE greater than 25 HP and less than or equal to 500 HP, you must conduct an initial performance test to demonstrate compliance. **(40 CFR 60.4233(b)(2)(i))**
 - ii. If you are an owner or operator of a stationary SI ICE greater than 500 HP, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter, to demonstrate compliance. **(40 CFR 60.4233(b)(2)(ii))**

VI. MONITORING/RECORDKEEPING

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

1. For each emergency stationary SI ICE, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2)(i) and (ii))**
2. The permittee shall keep records of the following for FGEMERG-JJJJ: **(40 CFR 60.4245(a))**
 - a. All notifications.
 - b. All maintenance performed on the engine.
 - c. If using a certified engine, documentation from the manufacturer that the engine is certified to meet the emissions standards of 40 CFR Part 60, Subpart JJJJ, as applicable.

- d. If not using a certified engine, documentation that the engine meets the emissions standards, which shall be demonstrated with an initial performance test within one year of engine installation.

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))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with applicable requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, as specified in 40 CFR Part 60, Subparts A and JJJJ, as they apply to FGEMERG-JJJJ. **(40 CFR Part 60, Subparts A and JJJJ)**
2. FGEMERG-JJJJ complies with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, as specified in 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart JJJJ. **(40 CFR 63.6590(c))**

FGZZZZ-CI<500 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, compression ignition (CI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.

Emission Units: EUB080-GEN, EUB85-FIREPUMP2, EUKELLOGG-UP, EUALICELLOVD, EUCPP, EUNCADMIN

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 63.6604(b), 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with the requirements in Item 1 of Table 2c of 40 CFR Part 63, Subpart ZZZZ which apply to each engine in FGZZZZ-CI<500 as specified in the following:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.2;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.If the emergency engine is being operated during an emergency and it is not possible to shut down the engine to perform the management practice requirements on the schedule required, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law or which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c.1)**
2. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in SC III.1. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.1. **(40 CFR 63.6625(i))**
3. The permittee shall operate and maintain each engine in FGZZZZ-CI<500 and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6605, 40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**

4. For each engine in FGZZZZ-CI<500, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
5. The permittee may operate each engine in FGZZZZ-CI<500 for no 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. **(40 CFR 63.6640(f)(2))**
6. Each engine in FGZZZZ-CI<500 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-CI<500 with non-resettable hours meters to track the operating hours. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. If using the oil analysis program, the permittee must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30% of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(i))**

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-CI<500, the permittee shall keep in a satisfactory manner the following:
 - a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted,
 - b. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment,
 - c. Records of performance tests and performance evaluations,
 - d. Records of all required maintenance performed on the air pollution control and monitoring equipment,
 - e. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a), 40 CFR 63.6660)**

2. For each engine in FGZZZZ-CI<500, the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with the operation and maintenance of the engine according to the manufacturer's emission-related operation and maintenance instructions; or of a maintenance plan that provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660, 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**
3. For each engine in FGZZZZ-CI<500 the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
4. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-CI<500 on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-CI<500 on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(f), 40 CFR 63.6660)**
5. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGZZZZ-CI<500, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3), 40 CFR 1090.305)**
6. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
7. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGZZZZ-SI<500
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, spark ignition (SI) RICE equal to or less than 500 brake hp. A RICE is existing if the date of installation is before June 12, 2006.

Emission Units: EUAUXSERV, EUBIOMEDENG, EUCOOLEY, EUCSE, EUDUDER, EUFACSERVA, EUFORDLIB, EUFXB, EUNCMICRO, EUPRINTGEN, EUPERRY, EUROSSACAD, EUSINDUST, EUWOLVERINE, EUWOMENGYM, EUANNPARK, EUHEALTH, EUMEDSCI2, EUSIMPSONPKG, EUUMHOLDEN, EUUMHMEDINN, EUCHURCHST, EUKOOKLEGAL, EUEASTQUAD, EUHAVEN, EUKRESGELIB, EUOBSERLODGE, EURACKHAM, EUSOCIALWK, EUWESTHALL, EUWYLYHALL, EUARBORLKS1, EUNURSING, EUNCRC-B075, EUTRAVERWOOD, EUARBORLKS2-45, EUPHOENIX, EUWALGREEN, EUARF, EUDENNISON, EUFLETCHER, EUFORDSCHOOL, EUSPH2, EUMOJOFOOD, EUSTOCKWELL, EUSHEPARDGYM.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must comply with the requirements in Item 6 of Table 2c of 40 CFR Part 63, Subpart ZZZZ which apply to each engine in FGZZZZ-SI<500 as specified in the following:
 - a. Change oil and filter every 500 hours of operation or annually, whichever comes first, except as allowed in SC III.2,
 - b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If the emergency engine is being operated during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice standard can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has been abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. **(40 CFR 63.6602, 40 CFR Part 63, Subpart ZZZZ, Table 2c.6)**

2. The permittee may utilize an oil analysis program in order to extend the specified oil change requirement in SC III.1. The oil analysis must be performed at the same frequency specified for changing the oil in SC III.1. **(40 CFR 63.6625(j))**

3. The permittee shall operate and maintain each engine in FGZZZZ-SI<500 and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6605, 40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**
4. For each engine in FGZZZZ-SI<500 the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
5. The permittee may operate each engine in FGZZZZ-SI<500 for no 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, but 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. **(40 CFR 63.6640(f)(2))**
6. Each engine in FGZZZZ-SI<500 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per calendar year provided for maintenance and testing 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-SI<500 with non-resettable hours meters to track the operating hours. **(40 CFR 63.6625(f))**

V. TESTING/SAMPLING

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

1. If using the oil analysis program, the permittee must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **(40 CFR 63.6625(j))**

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-SI<500 the permittee shall keep in a satisfactory manner the following:
 - a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted,
 - b. Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment,
 - c. Records of performance tests and performance evaluations,

- d. Records of all required maintenance performed on the air pollution control and monitoring equipment,
- e. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(a), 40 CFR 63.6660)**

- 2. For each engine in FGZZZZ-SI<500 the permittee shall keep in a satisfactory manner, records to demonstrate continuous compliance with the operation and maintenance of the engine according to the manufacturer's emission-related operation and maintenance instructions; or of a maintenance plan that provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(d), 40 CFR 63.6660, 40 CFR Part 63, Subpart ZZZZ, Table 6.9)**
- 3. For each engine in FGZZZZ-SI<500 the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e), 40 CFR 63.6660)**
- 4. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-SI<500 on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-SI<500 on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(40 CFR 63.6655(f), 40 CFR 63.6660)**
- 5. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
- 6. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

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

FGZZZZ-SI>500 FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, spark ignition (SI) RICE greater than 500 brake hp. An existing emergency spark ignition engine is one that commenced construction or reconstruction before December 19, 2002.

Emission Units: EUADMIN SERV, EUMSRB-III, EUMLB, EUPALMERCMM, EUPALMER PARK

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGZZZZ-SI>500 and after-treatment control device (if any) in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGZZZZ-SI>500, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGZZZZ-SI>500 for no 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, but 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. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGZZZZ-SI>500 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in **SC III.3**. 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-SI>500 with non-resettable hours meters to track the operating hours. **(R 336.1213(3)(a))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-SI>500, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-SI>500 on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-SI>500 on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGZZZZ-CI>500
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, existing emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is existing if the date of installation is before December 19, 2002.

Emission Units: EUUMH-GEN4, EUUMHGEN1, EUUMHGEN2, EUUMHGEN3, EUUMHMCHC, EUUMHEMBMOTT, EUARBORLKS3, EUB550-GEN, EUB016-GEN

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 63.6604(b), 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGZZZZ-CI>500 and after-treatment control device (if any) in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGZZZZ-CI>500, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGZZZZ-CI>500 for no 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, but 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. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGZZZZ-CI>500 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted towards the 100 hours per calendar year provided for maintenance and testing as provided in **SC III.3**. 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-CI>500 with non-resettable hours meters to track the operating hours. **(R 336.1213(3))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-CI>500, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 63.6655(e))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-CI>500 on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-CI>500 on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGZZZZ-CI>500, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. **(40 CFR 80.510(b))**
4. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGZZZZ-SI>500 NEW FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, **new or reconstructed** emergency, spark ignition (SI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002.

Emission Units: EUEECS-880KW, EUEECS-800KW, EUFBALL-WEST, EUFBALL-EAST, EUHATCHER, EULSA, EULS11, EULS12, EUNORTHQUAD, EUROSSBUS1, EUROSSBUS2, EUSPH1, EUTHAYER, EUUNDERSCI

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGZZZZ-SI>500 NEW and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGZZZZ-SI>500 NEW the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGZZZZ-SI>500 NEW for no 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. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGZZZZ-SI>500 NEW may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in **SC III.3**. 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-SI>500 NEW with non-resettable hours meters to track the operating hours. **(R 336.1213(3))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-SI>500 NEW, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-SI>500 NEW on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-SI>500 NEW on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
4. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit an Initial Notification that includes the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that FGZZZZ-SI>500 NEW has no additional requirements and the basis of the exclusion. **(40 CFR 63.6645(f))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGZZZZ-CI>500 NEW FLEXIBLE GROUP CONDITIONS

DESCRIPTION

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), located at a major source of HAP emissions, **new or reconstructed** emergency, compression ignition (CI) RICE greater than 500 brake hp. A RICE is new or reconstructed if the date of installation or modification is after December 19, 2002.

Emission Units: EUBSRB-GEN1, EUBSRB-GEN2, EUARBORLKS2, EUB85-EMERGEN1, EUB85-EMERGEN2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall burn only diesel fuel in each engine with a maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 63.6604(c), 40 CFR 1090.305)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGZZZZ-CI>500 NEW and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. **(40 CFR 63.6605)**
2. For each engine in FGZZZZ-CI>500 NEW, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. **(40 CFR 63.6625(h))**
3. The permittee may operate each engine in FGZZZZ-CI>500 NEW for no 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. **(40 CFR 63.6640(f)(2))**
4. Each engine in FGZZZZ-CI>500 NEW may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in **SC III.3**. 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 power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 63.6640(f)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGZZZZ-CI>500 NEW with non-resettable hours meters to track the operating hours. **(R 336.1213(3))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. For each engine in FGZZZZ-CI>500 NEW the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
2. The permittee shall monitor and record, the total hours of operation for each engine in FGZZZZ-CI>500 NEW on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGZZZZ-CI>500 NEW on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3))**
3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGZZZZ-CI>500 NEW, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. **(R 336.1213(3), 40 CFR 1090.305)**
4. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). **(40 CFR 63.6660(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6660(b))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit an Initial Notification that includes the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that FGZZZZ-CI>500 NEW has no additional requirements and the basis of the exclusion. **(40 CFR 63.6645(f))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGBLRMACT-LG

FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units: EUB0260-02, EUB0260-03, EUB0260-04, EUB0260-06, EUB0805-02, EUB0805-03, EUB0805-04, EUB5102-01, EUB5102-02, EUB5102-03, EUB5102-04, EUBOILER2, EUBOILER3, EUBOILER1A, EUBOILER1B, EUBOILER5, EUBOILER6, EUB0400-01, EUB0400-02, EUB0407-LP-01, EUB0407-LP-02, EUB0407-LP-03, EUB0423-01, EUB0423-02, EUB0425-03, , EUB0555-01, EUB0555-02

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

2. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
3. The permittee shall conduct a tune-up of each emission unit that has an oxygen trim system installed in FGBLRMACT-LG of the burner(s) and combustion controls, as applicable, every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi). **(40 CFR 63.7500(d), 40 CFR 63.7540(a)(12), Table 3 of 40 CFR Part 63, Subpart DDDDD)**
 - a. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. **(40 CFR 63.7515(d))**
 - b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7540(a)(12))**
 - c. If the unit is not operating on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
4. At all times, the permittee must operate and maintain each existing gas 1 boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

4. The permittee's records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). **(40 CFR 63.7560(a))**
5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5-years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
6. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. For the initial compliance demonstration for each boiler or process heater, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of all compliance demonstrations. The Notification of Compliance Status report must contain all of the information specified below.
 - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(e)(1))**
 - b. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official.
 - i. "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR Part 63, Subpart DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)." **(40 CFR 63.7545(e)(8)(i))**
 - ii. "The facility has had an energy assessment performed according to 40 CFR 63.7530(e)." **(40 CFR 63.7545(e)(8)(ii))**
5. The permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**
6. If the permittee intends to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of 40 CFR Part 63, Part 60, Part 61, or Part 65, or Other Gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575, the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information as listed below.
 - a. Company name and address. **(40 CFR 63.7545(f)(1))**
 - b. Identification of the affected unit. **(40 CFR 63.7545(f)(2))**
 - c. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared, or the natural gas supply interruption began. **(40 CFR 63.7545(f)(3))**
 - d. Type of alternative fuel that the permittee intends to use. **(40 CFR 63.7545(f)(4))**
 - e. Dates when the alternative fuel use is expected to begin and end. **(40 CFR 63.7545(f)(5))**

7. If the permittee has switched fuels or made a physical change to the boiler or process heater and the fuel switch or physical change resulted in the applicability of a different subcategory, the permittee must provide notice of the date upon which the permittee switched fuels or made the physical change within 30 days of the switch/change. The notification must identify.
 - a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice. **(40 CFR 63.7545(h)(1))**
 - b. The currently applicable subcategory under 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7545(h)(2))**
 - c. The date upon which the fuel switch or physical change occurred. **(40 CFR 63.7545(h)(3))**
8. The permittee must submit boiler and process heater tune-up compliance reports to the appropriate AQD District Office. The reports must be postmarked or submitted by March 15th and must cover the period of January 1 through December 31 of the reporting year. For new units, the first report should cover the period of startup to December 31 of the reporting year. Compliance reports must also be submitted to EPA using the Compliance and Emissions Data Reporting Interface (CEDRI) which is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). **(40 CFR 63.7550(b))**
9. The permittee must submit a compliance report containing the following information.
 - a. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
 - b. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
 - c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
 - d. Include the date of the most recent tune-up for each unit. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
 - e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
10. The permittee must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the EPA Region V at the appropriate address listed in 40 CFR 63.13 and to the appropriate AQD District Office. **(40 CFR 63.7550(h)(3))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

Footnotes:

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

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

**FGBLRMACT-SM
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

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

Emission Units:

<p>Equal to or less than 5 MMBTU/hr and only burns gaseous or light liquid fuels</p>	<p>EUB0350-01, EUB0396-03, EUB0399-01, EUB0399-02, EUB0399-03 EUB0406-01, EUB0406-02, EUB0406-NEW-1, EUB0406-NEW-02, EUB0409-01 EUB0437-01, EUB0437-02, EUB0437-03, EUB0437-SB-01, EUB0439-01 EUB0439-02, EUB0440-02, EUB0515-01, EUB0515-02 EUB0515-03, EUB0515-04, EUB0709-02, EUB0710-01, EUB0711-DHWH-1 EUB0711-DHWH-2, EUB0742-01, EUB0742-02, EUB0799-01, EUB0812-01 EUB0816-01, EUB0857-01, EUB0857-02, EUB0890-01, EUB0890-02 EUB0890-03, EUB0982-01, EUB0982-02, EUB0982-03, EUB2501-01 EUB5038-01, EUB5038-02, EUB5038-DHWH-1, EUB5038-DHWH-2 EUB5092-01, EUB5092-02, EUB5092-03, EUB5059-01, EUB5059-02 EUB5059-03, EUB5059-04, EUB5059-DHWH-05, EUB5117-01, EUB5117-02 EUB5283-01, EUB8081-2-01, EUB5418-01, EUB5418-02, EUCOLISEUM EUB0427-01, EUB0427-02, EUB0444-01, EUB0444-02, EUB044-03 EUB0457-01, EUB0457-02, EUB0460-01, EUB0460-02, EUB0498-01 EUB0498-02, EUB0498-03, EUB0812-02, EUB0812-03, EUB8090-01 EUB8090-02, EUB8090-03, EUB8090-04, EUB5399-01, EUB5399-02 EUB5399-03, EUB5347-01, EUB5347-02, EUB5347-03, EUB5369-01 EUB5369-02, EUB5369-03</p>
<p>Greater than 5 MMBTU/hr and less than 10 MMBTU/hr that burns gaseous or light liquid fuels or any unit that is less than 10 MMBTU/hr and burns any heavy liquid or solid fuels</p>	<p>EUB0324-01, EUB0324-02, EUB0396-01, EUB0396-02, EUB0403-01 EUB0403-02, EUB0403-03, EUB0437-SB-02, EUB0437-SB-03, EUB0440-01 EUB0440-03, EUB0441-01, EUB0441-02, EUB0512-01, EUB0512-02, EUB0442-02, EUB0442-03, EUB0448-01, EUB0448-02, EUB0448-03, EUB0448-04 EUB0555-03, EUB0555-04, EUB0555-05, EUB0799-02, EUB0831-01, EUB0831-02, EUB0432-01, EUB0432-02</p>

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must, for boilers or process heaters with a heat input capacity of less than or equal to 5 MMBTU/hr, conduct a 5-year tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. The burner inspection may be delayed until the next scheduled or

unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7500(d) or (e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**

2. The permittee must, for boilers or process heaters with a heat input capacity of greater than 5 MMBTU/hr and less than 10 MMBTU/hr, conduct a biennial tune-up of the boiler or process heater according to 40 CFR 63.7540(a)(11) no more than 25 months after the previous tune-up. **(40 CFR 63.7500(e), 40 CFR 63.7515(d), 40 CFR 63.7540(a)(11), 40 CFR Part 63, Subpart DDDDD, Table 3.2)**
3. The permittee must, for boilers or process heaters that has a continuous oxygen trim system installed, conduct a tune-up of the burner(s) and combustion controls, as applicable, every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi). **(40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3.1)**
 - a. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. **(40 CFR 63.7515(d))**
 - b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7540(a)(12))**
 - c. The permittee shall 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))**
4. The permittee must conduct a tune-up of each boiler or process heater as specified in the following: **(40 CFR 63.7540(a)(11) or (12))**
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune-up or may delay the burner inspection until the next scheduled unit shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
 - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown. **(40 CFR 63.7540(a)(10)(iii))**
 - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NOX requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
 - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
5. If the unit is not operated on the required date for the tune-up, the tune-up must be conducted within 30 calendar days of startup. **(40 CFR 63.7540(a)(13))**
6. At all times, the permittee must operate and maintain each existing small boiler or process heater, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.7500(a)(3))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep a copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or 2 or 5 year compliance report or one-time energy assessment, as applicable, that the permittee submitted. **(40 CFR 63.7555(a)(1))**
2. The permittee must keep the records in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
3. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
4. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

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

FGCOLDCLEANERS FLEXIBLE GROUP CONDITIONS

DESCRIPTION

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

Emission Units EUHEAVY-CC-01, EUHEAVY-CC-02, EUBLEUEGC-CC, EURADRICK-CC, EUTRANSPO-CC-01, EUTRANSPO-CC-02, EUWILSON-CC, EUCPP-CC

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

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

III. PROCESS/OPERATIONAL RESTRICTION(S)

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

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The cold cleaner must meet one of the following design requirements:
 - a. The air/vapor interface of the cold cleaner is no more than ten square feet. **(R 336.1281(2)(h))**
 - b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment. **(R 336.1285(2)(r)(iv))**
2. The cold cleaner shall be equipped with a device for draining cleaned parts. **(R 336.1611(2)(b), R 336.1707(3)(b))**
3. All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner. **(R 336.1611(2)(a), R 336.1707(3)(a))**
4. The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated. **(R 336.1707(3)(a))**
5. If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions:
 - a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. **(R 336.1707(2)(a))**

- b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. **(R 336.1707(2)(b))**
- c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD. **(R 336.1707(2)(c))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

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

VII. REPORTING

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

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

**FGRULE287(2)(c)
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.

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

Emission Units installed prior to December 20, 2016: EUPAINTPLANTOPS, EUPAINTTRANSP, EUPAINTPRINTING, EUPAINTWILSON, EUPRINTING

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 Gallons/month (minus water as applied)	Calendar month	Each emission unit	R 336.1287(2)(c)(i)

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

- Any exhaust system installed on or after December 20, 2016, that serves only coating spray equipment shall be equipped with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer’s specifications, or the permittee develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions. All emission units installed before December 20, 2016, with an exhaust system that serves only coating spray equipment must have a properly installed and operated particulate control system. (R 336.1213(2), R 336.1287(2)(c)(ii), R 336.1910)

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the EGLE, AQD Rule 287(2)(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor. **(R 336.1213(3))**
 - a. Volume of coating used, as applied, minus water, in gallons. **(R 336.1287(2)(c)(iii))**
 - b. Documentation of any filter replacements or maintenance of water wash control for exhaust systems serving coating spray equipment or other documentation included in a plan developed by the owner or operator of the equipment. **(R 336.1213(3))**

VII. REPORTING

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

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

E. NON-APPLICABLE REQUIREMENTS

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

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ 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 ₂ 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 _x	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 ₂	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

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EUCPP-CHPHRSG.

Continuous Emission Monitoring System (CEMS) Requirements (PTI 1-18)

1. Within 30 calendar days after commencement of trial start-up, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS.
2. Within 150 calendar days after commencement of trial start-up, the permittee shall submit two copies of a complete test plan for the CEMS to the AQD for approval.
3. Within 180 calendar days after commencement of trial start-up, the permittee shall complete the installation and testing of the CEMS.
4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

Emission	Applicable PS
NO _x	2
O ₂	3

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.
6. The CEMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS, listed in the table above, of Appendix B to 40 CFR Part 60.
7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS set forth in Appendix F of 40 CFR Part 60. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F).
8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The Summary Report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:
 - a. A report of each exceedance above the limits specified in the conditions of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.
 - b. A report of all periods of CEMS downtime and corrective action.
 - c. A report of the total operating time of EUCPP-CHPHRSG during the reporting period.
 - d. A report of any periods that the CEMS exceeds the instrument range.
 - e. If no exceedances or CEMS downtime occurred during the reporting period, the permittee shall report that fact.

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

Appendix 4. Recordkeeping

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

Appendix 5. Testing Procedures

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

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-M0675-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-M0675-2014a is being reissued as Source-Wide PTI No. MI-PTI-M0675-2021a.

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
52-12A	201600101	Incorporated PTI 52-12A to remove the requirement of having a high induction fan installed for the Crematory Incinerator at the Medical Science II Building 0213.	EUI0213-02
188-16	NA	Added new FGPATHDGENS (2) 1500 kW diesel fueled emergency generators.	FGPATHDGENS
31-18	201800119*	Incorporated PTI 31-18 to modify monitoring device on EUT0260-09, EUT0260-10, and FGBT0260-CO	EUT0260-09, EUT0260-10, and FGBT0260-CO
1-18	NA	Added a new Dual fuel combustion turbine in Central Power Plant. (NOTE: This equipment has not yet been installed. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(4)))	EUTURBINE
34-20*	NA	Incorporated PTI 34-20 to add CIT Engines.	FGCITENGINES

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
		(NOTE: This equipment has not yet been installed. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. (R 336.1201(4)))	EUCIT01, EUCIT02, EUCIT03

The following table lists the ROP amendments or modifications issued after the effective date of ROP No. MI-ROP-M0675-2021.

Permit to Install Number	ROP Revision Application Number-Issuance Date	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	202200123 / August 3, 2022	Update an error in the ROP for SC VII.4 of both FGZZZZ-SI<500 and FGZZZZ-CI<500 tables that indicated the facility was required to submit semi-annual compliance reports in accordance with 40 CFR 63.6595. These Conditions (SCVII.4 of both FGZZZZ-SI<500 and FGZZZZ-CI<500) are considered obsolete since the reporting requirement only applies to area sources of HAPs and this source is a major source of HAPs, so these Conditions were removed.	FGZZZZ-SI<500, FGZZZZ-CI<500
NA	202200146 / October 19, 2022	Remove references from the ROP of the six ethylene oxide sterilizer units (EUETO-1E through EUETO-6E and FG6ETO) since they were permanently shut down and rendered out of service since June 17, 2022. The units are planned to be permanently removed from the facility.	Emission Units and Flexible Group Removed: EUETO-1E, EUETO-2E, EUETO-3E, EUETO-4E, EUETO-5E, EUETO-6E FG6ETO

Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in 1. **EUB0260-06** and 2. **EUCPP-CHPHRSG**:

1. EUB0260-06

Sulfur Dioxide (SO2)

The total combined SO2 emission rate from Boiler No. 6, not to exceed 38.6 tons per 12-month rolling time period, shall be calculated by the tenth day of each calendar month using the following algorithms, based upon information supplied in permit application No. 42-98, or other method approved by AQD:

Where:

SO2-FO	=	Tons of SO2 emitted as a result of burning No. 2 fuel oil in Boiler No. 6 during the specified time period.
SO2-NG	=	Tons of SO2 emitted as a result of burning natural gas in Boiler No. 6 during the specified time period.
SO2-TC	=	Total combined tons of SO2 emitted as a result of burning both fuel oil and natural gas fuels in Boiler No. 6 during the specified time period.

and

S-FO	=	The sulfur content, in % by weight, of the No. 2 fuel oil burned during the specified time period based on the results of the monthly fuel analysis described in EUB0260-06, SC III.
D-FO	=	The density, in pounds per gallon, of the No. 2 fuel oil burned during the specified time period based on the results of the monthly fuel analysis described in EUB0260-06, SC III.
V-FO	=	The volume, in gallons, of the No. 2 fuel oil burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.
V-NG	=	The volume, in standard cubic feet, of the natural gas burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.

SO2-FO:

$$V\text{-FO gallons} \times \frac{D\text{-FO pounds}}{\text{gallon}} \times \frac{S\text{-FO}}{100} \times \frac{2 \text{ pound SO}_2}{\text{pound S}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

SO2-NG:

For natural gas, sulfur in fuel is calculated utilizing AP-42 value for average sulfur content of 2000 grains S per million standard cubic feet (MMscf), and is calculated as follows:

$$\frac{V\text{-NG scf}}{1,000,000} \times \frac{2,000 \text{ gr. S}}{\text{MMscf gas}} \times \frac{\text{lbs. S}}{7000 \text{ gr.S}} \times \frac{2 \text{ pounds SO}_2}{\text{pound S}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

SO2-TC:

$\frac{SO2-FO + SO2-NG}{12 \text{ month rolling time period}}$

Nitrogen Oxides (NOx)

Unless total NOx mass emissions are determined by a continuous emission monitoring system operated and maintained in conformance with Appendix D, 40 CFR Part 75, the total combined NOx emission rate from Boiler No. 6, not to exceed 88.3 tons per 12-month rolling time period, and calculated for the previous 12-month time period by the tenth day of each calendar month, shall be calculated as follows, based upon performance stack testing conducted by the facility on 2-23-2000 through 2-25-2000 or the most recent subsequent testing data.

Where:

NOx-FO	=	Tons of NOx emitted as a result of burning No. 2 fuel oil in Boiler No. 6 during the specified time period.
NOx-NG	=	Tons of NOx emitted as a result of burning natural gas in Boiler No. 6 during the specified time period.
NOx-TC	=	Total combined tons of NOx emitted as a result of burning both fuel oil and natural gas in Boiler No. 6 during the specified time period.

and

NEF-FO	=	The NOx emission factor while burning fuel oil, in pounds of NOx per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 0.096 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
NEF-NG	=	The NOx emission factor while burning natural gas, in pounds of NOx per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 0.051 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
BTU-FO	=	The heat content, in BTUs per gallon, of the No. 2 fuel oil burned during the specified time period based on the results of the monthly fuel analysis described in EUB0260-06, SC III.
V-FO	=	The volume, in gallons, of the No. 2 fuel oil burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.
V-NG	=	The volume, in standard cubic feet, of the natural gas burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.

NOx-FO:

$$V-FO \text{ gallons} \times \frac{BTU-FO \text{ BTU}}{\text{gallon}} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{NEF-FO \text{ lbs NOx}}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

NOx-NG:

$$V\text{-FO scf} \times \frac{1,000 \text{ BTU}}{\text{scf}} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{\text{NEF-NG lbs NO}_x}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

NO_x-TC:

$$\frac{\text{NO}_x\text{-FO} + \text{NO}_x\text{-NG}}{12 \text{ month rolling time period}}$$

Volatile Organic Compounds (VOC):

The total combined VOC emission rate from Boiler No. 6, not to exceed 41.2 tons per 12-month rolling time period, and calculated for the previous 12-month time period by the tenth day of each calendar month, shall be calculated as follows, based upon performance stack testing conducted by the facility on 2-23-2000 through 2-25-2000 or the most recent subsequent testing.

Where:

VOC-FO	=	Tons of VOC emitted as a result of burning No. 2 fuel oil in Boiler No. 6 during the specified time period.
VOC-NG	=	Tons of VOC emitted as a result of burning natural gas in Boiler No. 6 during the specified time period.
VOC-TC	=	Total combined tons of VOC emitted as a result of burning both fuel oil and natural gas in Boiler No. 6 during the specified time period.

and

VEF-FO	=	The VOC emission factor while burning fuel oil, in pounds of VOC per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 3.96E-6 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
VEF-NG	=	The VOC emission factor while burning natural gas, in pounds of VOC per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 4.00E-6 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
BTU-FO	=	The heat content, in BTUs per gallon, of the No. 2 fuel oil burned during the specified time period based on the results of the monthly fuel analysis described in EUB0260-06, SC III.
V-FO	=	The volume, in gallons, of the No. 2 fuel oil burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.
V-NG	=	The volume, in standard cubic feet, of the natural gas burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.

VOC-FO:

$$V\text{-FO gallons} \times \text{BTU-FO BTU} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{\text{VEF-FO lbs NO}_x}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

gallon 1,000,000 BTU MMBTU 2000 pounds

VOC-NG:

$$V\text{-FO scf} \times \frac{1,000 \text{ BTU}}{\text{scf}} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{\text{VEF-NG lbs NO}_x}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

VOC-TC:

$$\frac{\text{VOC-FO} + \text{VOC-NG}}{12 \text{ month rolling time period}}$$

Carbon Monoxide (CO):

The total combined CO emission rate from boiler No. 6, not to exceed 38.6 tons 170.3 per 12-month rolling time period, and calculated for the previous 12-month time period by the tenth day of each calendar month, shall be calculated as follows, based upon performance stack testing conducted by the facility on 2-23-2000 through 2-25-2000 or the most recent subsequent testing.

Where:

CO-FO	=	Tons of CO emitted as a result of burning No. 2 fuel oil in Boiler No. 6 during the specified time period.
CO-NG	=	Tons of CO emitted as a result of burning natural gas in Boiler No. 6 during the specified time period.
CO-TC	=	Total combined tons of CO emitted as a result of burning both fuel oil and natural gas in Boiler No. 6 during the specified time period.

and

CEF-FO	=	The CO emission factor while burning fuel oil, in pounds of CO per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 0.0022 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
CEF-NG	=	The CO emission factor while burning natural gas, in pounds of CO per million BTU of heat input, based on the most recent approved performance stack testing as described in EUB0260-06, SC III. Based on the stack testing conducted by facility on 2-23-2000 through 2-25-2000, this emission factor is 0.0099 pounds per million BTU of heat input, or the emission factor produced from the most recent subsequent stack test.
BTU-FO	=	The heat content, in BTUs per gallon, of the No. 2 fuel oil burned during the specified time period based on the results of the monthly fuel analysis described in E-B0260-06, SC III.
V-FO	=	The volume, in gallons, of the No. 2 fuel oil burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.
V-NG	=	The volume, in standard cubic feet, of the natural gas burned during the specified time period based on the daily usage monitoring described in EUB0260-06, SC III.

CO-FO:

$$\text{V-FO gallons} \times \frac{\text{BTU-FO BTU}}{\text{gallon}} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{\text{CEF-FO lbs NO}_x}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

CO-NG:

$$\text{V-FO scf} \times \frac{1,000 \text{ BTU}}{\text{scf}} \times \frac{1 \text{ MMBTU}}{1,000,000 \text{ BTU}} \times \frac{\text{CEF-NG lbs NO}_x}{\text{MMBTU}} \times \frac{1 \text{ ton}}{2000 \text{ pounds}}$$

CO-TC:

CO-FO + CO-NG
12 month rolling time period

2. EUCPP-CHPHRSG

CO₂e Emission Calculations for EUCPP-CHPHRSG (PTI 1-18)

CO ₂ emissions (tons/month)	=	CO ₂ EF (scf/MMBTU) x Fuel Usage (MMscf/month) x Higher Heating Value (MMBTU/MMscf) x CO ₂ MW (lb/lb-mol) x CO ₂ GWP / molar volume (scf/lb-mol) / 2,000 lb/ton
CO ₂ EF (scf/MMBTU)	=	carbon based F-factor for natural gas according to the methodology from equation G-4 of Appendix G to Part 75
Fuel Usage (MMscf/month)	=	monthly fuel usage data from fuel flow meter
Heat Content (MMBTU/MMscf)	=	standard value in AP-42 for natural gas or supplier data, if available
CO ₂ MW (lb/lb-mol)	=	44 [C = 6; O = 8; 6 + (8 x 2) = 22]
CO ₂ GWP	=	global warming potential from 40 CFR Part 98, Subpart A, Table A-1 (January 1, 2014) Molar volume (scf/lb-mol) = 385
CO ₂ e emissions (tons/month)	=	CO ₂ emissions (tons/month) + [(Fuel Usage (MMscf/month) x Higher Heating Value(MMBTU/MMscf)) x (CH ₄ EF (kg/MMBTU) x CH ₄ GWP + N ₂ O EF (kg/MMBTU) x N ₂ O GWP)] x 2.20462 (lb/kg) x 1/2000 (ton/lb)]

Where:

Fuel Usage (MMscf/month)	=	monthly fuel usage data from fuel flow meter
Heat Content (MMBTU/MMscf)	=	standard value in AP-42 for natural gas or supplier data, if available
CH ₄ EF (kg/MMBTU)	=	emission factors from AP-42 Ch. 3.1 for Stationary Gas Turbines, Table 2a (April 2000)
N ₂ O EF (kg/MMBTU)	=	emission factors from AP-42 Ch. 3.1 for Stationary Gas Turbines, Table 2a (April 2000)
CH ₄ GWP	=	global warming potential from 40 CFR Part 98, Subpart A, Table A-1 (January 1, 2014)
N ₂ O GWP	=	global warming potential from 40 CFR Part 98, Subpart A, Table A-1 (January 1, 2014)

Where:

Fuel Usage (MMscf/month)	=	monthly fuel usage data from fuel flow meter
Heat Content (MMBTU/MMscf)	=	standard value in AP-42 for natural gas or supplier data, if available
CH ₄ EF (kg/MMBTU)	=	emission factors from AP-42 Ch. 3.1 for Stationary Gas Turbines, Table 2a (April 2000)
N ₂ O EF (kg/MMBTU)	=	emission factors from AP-42 Ch. 3.1 for Stationary Gas Turbines, Table 2a (April 2000)
CH ₄ GWP =	=	global warming potential from 40 CFR Part 98, Subpart A, Table A-1 (January 1, 2014)
N ₂ O GWP	=	global warming potential from 40 CFR Part 98, Subpart A, Table A-1 (January 1, 2014)

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.