

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

November 30, 2017

PERMIT TO INSTALL  
202-15A

ISSUED TO  
Consumers Energy Company

LOCATED AT  
12201 Pleasant Lake Road  
Manchester, Michigan

IN THE COUNTY OF  
Washtenaw

STATE REGISTRATION NUMBER  
N3920

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

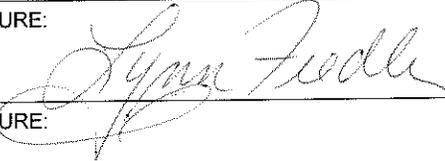
DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**August 15, 2017**

DATE PERMIT TO INSTALL APPROVED:

**November 30, 2017**

SIGNATURE:



DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

## PERMIT TO INSTALL

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**Common Abbreviations / Acronyms**

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

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

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. 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))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install 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 this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit 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 R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. 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 Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department 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 condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. 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 R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

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

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUENGINE3-1	Natural gas fired, 4-stroke lean burn (4SLB) reciprocating internal combustion engine (RICE) with maximum rating of 3,750 HP used for compression and transmission of natural gas. Equipped with oxidation catalyst.	05/26/2016	FGENGINES-P3, FGNSPSJJJJ, FGNESHAPZZZZ
EUENGINE3-2	Natural gas fired, 4-stroke lean burn (4SLB) RICE with maximum rating of 3,750 HP used for compression and transmission of natural gas. Equipped with oxidation catalyst.	05/26/2016	FGENGINES-P3, FGNSPSJJJJ, FGNESHAPZZZZ
EUENGINE3-3	Natural gas fired, 4-stroke lean burn (4SLB) RICE with maximum rating of 3,750 HP used for compression and transmission of natural gas. Equipped with oxidation catalyst.	TBD	FGENGINES-P3, FGNSPSJJJJ, FGNESHAPZZZZ
EUENGINE3-4	Natural gas fired, 4-stroke lean burn (4SLB) RICE with maximum rating of 3,750 HP used for compression and transmission of natural gas. Equipped with oxidation catalyst.	TBD	FGENGINES-P3, FGNSPSJJJJ, FGNESHAPZZZZ
EUENGINE3-5	Natural gas fired, 4-stroke lean burn (4SLB) RICE with maximum rating of 3,750 HP used for compression and transmission of natural gas. Equipped with oxidation catalyst.	TBD	FGENGINES-P3, FGNSPSJJJJ, FGNESHAPZZZZ
EUEGEN-3-25-01	Natural gas fired RICE with maximum rating of 1,818 HP, for emergency power generation.	TBD	NA
EUBOIL-3-09-01	Natural gas fired auxiliary boiler with maximum rating of 12.5 MMBtu/hr, equipped with low-NOx burner design.	TBD	FGNESHAPDDDDD
EUFGHT-3-04-01	Natural gas fired fuel heater with maximum heat input rating of 0.63 MMBtu/hr.	TBD	FGNESHAPDDDDD
EUTANK-3-07-01	Above ground storage tank for new engine oil.	TBD	FGTANKS
EUTANK-3-07-02	Above ground storage tank for new compressor oil.	TBD	FGTANKS
EUTANK-3-07-03	Above ground storage tank for maintenance oil.	TBD	FGTANKS
EUTANK-3-07-04	Above ground storage tank for recovered compressor oil.	TBD	FGTANKS

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUTANK-3-07-05	Above ground storage tank for used oil.	TBD	FGTANKS
EUTANK-3-22-01	Above ground storage tank for natural gas condensate.	TBD	FGTANKS
EUTANK-3-22-02	Sump tank - storage for wash down water and auxiliary building sump.	TBD	FGTANKS
EUTANK-3-24-01	Above ground storage tank for new coolant.	TBD	FGTANKS
EUTANK-3-24-02	Above ground storage tank for used/maintenance coolant.	TBD	FGTANKS
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**The following conditions apply to:**  
**EUEGEN-3-25-01**

**DESCRIPTION:** Natural gas fired RICE with maximum rating of 1,818 HP, for emergency power generation.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	2.0 g/HP-hr <sup>a</sup> or 160 ppmvd at 15% O <sub>2</sub> <sup>a</sup>	Hourly	EUEGEN-3-25-01	SC V.1, VI.1, VI.2	R 336.1205(1)(a), 40 CFR 60.4233(e), Table 1 to Subpart JJJJ of Part 60
2. CO	4.0 g/HP-hr <sup>a</sup> or 540 ppmvd at 15% O <sub>2</sub> <sup>a</sup>	Hourly	EUEGEN-3-25-01	SC V.1, VI.1, VI.2	40 CFR 60.4233(e), Table 1 to Subpart JJJJ of Part 60
3. VOC	1.0 g/HP-hr <sup>a, b</sup> or 86 ppmvd at 15% O <sub>2</sub> <sup>a, b</sup>	Hourly	EUEGEN-3-25-01	SC V.1, VI.1, VI.2	R 336.1205(1)(a), R 336.1702(b), 40 CFR 60.4233(e), Table 1 to Subpart JJJJ of Part 60

<sup>a</sup> Owners and operators of stationary *non-certified* SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>. (See Table 1 to 40 CFR 60 Subpart JJJJ.)  
<sup>b</sup> For purposes of this emission limit, when calculating emissions of VOC, emissions of formaldehyde should not be included. (See Table 1 to 40 CFR 60 Subpart JJJJ.)

**II. MATERIAL LIMITS**

1. The permittee shall burn only pipeline quality natural gas, as defined in 40 CFR 60.4248, in EUEGEN-3-25-01. (R 336.1205(1)(a)(ii)(D), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUEGEN-3-25-01 for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes the 100 hours as described in SC III.2. (R 336.1205(1)(a)(ii)(B), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))
2. The permittee may operate EUEGEN-3-25-01 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. EUEGEN-3-25-01 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 described in SC III.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 demand response, or to generate income for the permittee by supplying power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **(40 CFR 60.4243(d)(3))**
4. The permittee shall operate and maintain EUEGEN-3-25-01 such that it meets the emission limits in SC I.1, I.2, and I.3 over the entire life of the engine. **(40 CFR 60.4234)**
5. If EUEGEN-3-25-01 is operated as a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUEGEN-3-25-01:
  - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
  - b) Meet the requirements as specified in 40 CFR 1068 Subparts A through D, as applicable, including labeling and maintaining certified engines according to the manufacturer's recommendations,
  - c) Only change those engine settings that are permitted by the manufacturer.

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

6. If EUEGEN-3-25-01 is a non-certified engine or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee shall keep a maintenance plan for EUEGEN-3-25-01 and shall, to the extent practicable, maintain and operate EUEGEN-3-25-01 in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(b)(2))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall equip and maintain EUEGEN-3-25-01 with a non-resettable hours meter to track the operating hours. **(R 336.1205(1)(a)(ii)(B), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4237(a))**
2. The nameplate capacity of EUEGEN-3-25-01 shall not exceed 1,818 HP, as certified by the equipment manufacturer. **(R 336.1205(1)(a)(ii), 40 CFR 52.21(c) & (d))**

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. If EUEGEN-3-25-01 is a non-certified engine or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee must demonstrate compliance as follows:
  - a) Conduct an initial performance test to demonstrate compliance with the applicable emission limits in SC I.1, I.2, and I.3 within 60 days after achieving the maximum production rate at which EUEGEN-3-25-01 will be operated, but not later than 180 days after initial startup of EUEGEN-3-25-01, or within 1 year after EUEGEN-3-25-01 is no longer operated as a certified engine.
  - b) Compliance with the emission limits in SC I.1, I.2, and I.3 shall be based on an average of three 1-hour or longer test runs conducted according to 40 CFR 60.4244 and Table 2 to 40 CFR Part 60 Subpart JJJJ.
  - c) Subsequent performance testing shall be completed every 8,760 hours of engine operation or every 3 years, whichever comes first, to demonstrate compliance with the applicable emission limits.

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

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep, in a satisfactory manner, the following records for EUEGEN-3-25-01:
  - a) If certified: The permittee shall keep records of the documentation from the manufacturer that the EUEGEN-3-25-01 is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
  - b) If non-certified: 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. **(R 336.1205(1)(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4233(e), 40 CFR 60.4243, 40 CFR 60.4245(a))**

2. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EUEGEN-3-25-01:
  - a) If certified: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EUEGEN-3-25-01 has been maintained according to them, as specified in SC III.5.
  - b) If non-certified: The permittee shall keep records of a maintenance plan, as required by SC III.6 and records of conducted maintenance.

The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4243, 40 CFR 60.4245(a), 40 CFR Part 60 Subpart JJJJ)**

3. The permittee shall monitor and record the total hours of operation for EUEGEN-3-25-01. The permittee shall document how many hours are spent for emergency operation of EUEGEN-3-25-01 including what classified the operation as emergency. **(R 336.1205(1)(a)(ii)(B), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243(d), 40 CFR 60.4245(b))**
4. The permittee shall keep records of notifications submitted for the completion of construction and start-up of EUEGEN-3-25-01, as applicable. **(40 CFR 60.4245(a))**

## **VII. REPORTING**

1. 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 EUEGEN-3-25-01. **(R 336.1201(7)(a))**
2. The permittee shall submit a notification specifying whether EUEGEN-3-25-01 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 EUEGEN-3-25-01 and within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart JJJJ)**
3. If EUEGEN-3-25-01 has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1), if applicable. The notification must include the following information:
  - a) Name and address of the owner or operator;
  - b) The address of the affected source;
  - c) EUEGEN-3-25-01 information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
  - d) EUEGEN-3-25-01 emission control equipment; and
  - e) Fuel used in EUEGEN-3-25-01.

The notification must be postmarked no later than 30 days after construction commenced for EUEGEN-3-25-01. **(40 CFR 60.7(a)(1), 40 CFR 60.4245(c))**

4. The permittee shall submit an initial notification as required in 40 CFR 63.6645(f) for EUEGEN-3-25-01. The notification must include the information in 40 CFR 63.9(b)(2)(i)-(v):
- a) The name and address of the owner or operator;
  - b) The address (i.e., physical location) of the affected source;
  - c) 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; and
  - e) A statement of whether the affected source is a major source or an area source.

The notification must also include a statement that EUEGEN-3-25-01 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). **(40 CFR 63.9(b)(2)(i)-(v), 40 CFR 63.6590(b)(1), 40 CFR 63.6645(f))**

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVEGEN-3-25-01	22	40	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

- 1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart JJJJ, as they apply to EUEGEN-3-25-01. **(40 CFR Part 60 Subparts A & JJJJ)**
- 2. The permittee shall comply with the provisions of the federal National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines as specified in 40 CFR Part 63 Subpart A and Subpart ZZZZ, as they apply to EUEGEN-3-25-01. **(40 CFR Part 63 Subparts A & ZZZZ)**

**The following conditions apply to:**  
**EUBOIL-3-09-01**

**DESCRIPTION:** Natural gas fired auxiliary boiler with maximum rating of 12.5 MMBtu/hr.

**Flexible Group ID:** FGNESHAPDDDDDD

**POLLUTION CONTROL EQUIPMENT:** equipped with low-NOx burner design

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	1.7 tpy <sup>a</sup>	12-month rolling time period as determined at the end of each calendar month	EUBOIL-3-09-01	SC VI.3, SC VI.4	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
2. NO <sub>x</sub>	50 lb/MMscf	Hourly	EUBOIL-3-09-01	SC VI.3	R 336.1205(1)(a), 40 CFR 52.21(c) & (d)

<sup>a</sup> This limit will remain in effect until the permanent shutdown of all 9 existing RICE that were installed between 1946-1955.

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Natural gas	69.7 MMscf/yr <sup>a</sup>	12-month rolling time period as determined at the end of each calendar month	EUBOIL-3-09-01	SC VI.4	R 336.1205(1)(a)(ii)(D), R 336.2802(4), 40 CFR 52.21(c) & (d)

<sup>a</sup> This limit will remain in effect until the permanent shutdown of all 9 existing RICE that were installed between 1946-1955.

2. The permittee shall burn only natural gas, as defined in 40 CFR 60.41c, in EUBOIL-3-09-01. **(R 336.1205(1)(a)(ii)(D), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The maximum design heat input capacity for EUBOIL-3-09-01 shall not exceed 12.5 MMBtu per hour on a fuel heat input basis. **(R 336.1205(1)(a)(ii), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
2. The permittee shall not operate EUBOIL-3-09-01 unless the low NOx burners are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a)(ii), R 336.1910, 40 CFR 52.21(c) & (d))**

3. The permittee shall install, calibrate, maintain and operate, in a satisfactory manner, a device to monitor and record the fuel usage rate for EUBOIL-3-09-01 on a continuous basis. **(R 336.1205(1)(a)(ii)(D), 40 CFR 52.21(c) & (d))**

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), 40 CFR 52.21(c) & (d))**
2. The permittee shall keep, in a satisfactory manner, monthly fuel use records for EUBOIL-3-09-01. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(40 CFR 60.48c(g))**
3. The permittee shall keep, in a satisfactory manner, records of the vendor guaranteed NO<sub>x</sub> emission factor for EUBOILER6, to demonstrate compliance with SC I.1 and I.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 52.21 (c) & (d))**
4. Until such time the 9 existing RICE that were installed between 1946-1955 are permanently shut down, the permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NO<sub>x</sub> emission calculation records and natural gas fuel use records for EUBOIL-3-09-01, as required by SC I.1 and SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a)(ii)(D), R 336.2802(4), 40 CFR 52.21 (c) & (d))**
5. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
  - a) Compliance tests and any testing required under the special conditions of this permit;
  - b) Verification of heat input capacity required to show compliance with SC IV.1;
  - c) Identification, type and the amounts of fuel combusted in EUBOIL-3-09-01 on a calendar month basis;
  - d) Records required by 40 CFR 60.7, 60.48c, as applicable;
  - e) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f), as applicable. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart Dc)**

#### **VII. REPORTING**

1. The permittee shall provide written notification of the date construction commences (if applicable) and actual startup of EUBOIL-3-09-01, in accordance with 40 CFR 60.7 and 60.48c. The notification shall include the design heat input, an identification of the fuels to be combusted and the anticipated annual capacity factor for EUBOIL-3-09-01. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7, 40 CFR 60.48c)**

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVBOIL-3-09-01	20	40	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the federal 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 EUBOIL-3-09-01. **(40 CFR Part 60 Subparts A & Dc)**

**The following conditions apply to:**  
**EUFGHT-3-04-01**

**DESCRIPTION:** Natural gas fired fuel heater with maximum heat input rating of 0.63 MMBtu/hr.

**Flexible Group ID:** FGNESHAPDDDDD

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

1. The permittee shall burn only natural gas, as defined in 40 CFR 63.7575, in EUFGHT-3-04-01. **(R 336.1205(1)(a)(ii)(D), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The maximum heat input capacity rating of EUFGHT-3-04-01 shall not exceed 0.63 MMBtu/hr. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall maintain records that verify the heat input capacity of EUFGHT-3-04-01, which are required to show compliance with SC IV.1. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVFGHT-3-04-01	14	10	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**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
FGTANKS	Nine (9) above ground storage tanks for holding oils, natural gas condensate, coolant and wash down water.	EUTANK-3-07-01, EUTANK-3-07-02, EUTANK-3-07-03, EUTANK-3-07-04, EUTANK-3-07-05, EUTANK-3-22-01, EUTANK-3-22-02, EUTANK-3-24-01, EUTANK-3-24-02
FGENGINES-P3	Five (5) natural gas fired, 4-stroke lean burn (4SLB) reciprocating internal combustion engines (RICE) with maximum rating of 3,750 HP each. Each engine is equipped with oxidation catalyst.	EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5
FGNSPSJJJJ	40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Requirements for non-emergency engines greater than 500 brake HP, commencing construction after June 12, 2006 and manufactured on or after July 1, 2010.	EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5
FGNESHAPZZZZ	40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) for new or reconstructed spark ignition non-emergency engines greater than 500 brake hp located at a major source of HAP emissions.	EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5
FGNESHAPDDDDD	Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These new boilers or process heaters must comply with this subpart upon startup.	EUBOIL-3-09-01, EUFGHT-3-04-01

**The following conditions apply to:**  
**FGTANKS**

**DESCRIPTION:** Nine (9) above ground storage tanks for holding oils, natural gas condensate, coolant and wash down water.

**Emission Units:** EUTANK-3-07-01, EUTANK-3-07-02, EUTANK-3-07-03, EUTANK-3-07-04, EUTANK-3-07-05, EUTANK-3-22-01, EUTANK-3-22-02, EUTANK-3-24-01, EUTANK-3-24-02

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not store liquids in FGTANKS other than the following: **(R 336.1205(1)(a)(ii)(C), R 336.1224, R 336.1225, R 336.1702(a))**

EUTANK-3-24-01, EUTANK-3-24-02	Coolant
EUTANK-3-07-02, EUTANK-3-07-01, EUTANK-3-07-05, EUTANK-3-07-04, EUTANK-3-07-03	Oil
EUTANK-3-22-01	Natural gas condensate
EUTANK-3-22-02	Wash down water

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The capacity of the tanks in FGTANKS shall not exceed the following: **(R 336.1205(1)(a)(ii)(C), R 336.1224, R 336.1225, R 336.1702)**

EUTANK-3-24-01	6,000 gallons
EUTANK-3-24-02	6,000 gallons
EUTANK-3-07-02	6,000 gallons
EUTANK-3-07-01	6,000 gallons
EUTANK-3-07-05	6,000 gallons
EUTANK-3-07-04	1,000 gallons
EUTANK-3-22-01	1,000 gallons
EUTANK-3-07-03	300 gallons
EUTANK-3-22-02	950 gallons

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**The following conditions apply to:**  
**FGENGINES-P3**

**DESCRIPTION:** Five (5) natural gas fired, 4-stroke lean burn (4SLB) reciprocating internal combustion engines (RICE) with maximum rating of 3,750 HP each.

**Emission Units:** EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5

**POLLUTION CONTROL EQUIPMENT:** Each engine is equipped with oxidation catalyst.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	35.9 tpy <sup>a, b</sup>	12-month rolling time period as determined at the end of each calendar month	FGENGINES-P3	SC VI.2	R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21(c) & (d)
2. NOx	0.6 g/HP-hr	Hourly	Each engine of FGENGINES-P3	SC V.1	R 336.1205(1)(a), 40 CFR 52.21(c) & (d)
3. VOC	36.2 tpy <sup>c</sup>	12-month rolling time period as determined at the end of each calendar month	FGENGINES-P3	SC VI.2	R 336.1205(1)(a), R 336.1702(a)
4. VOC	0.2 g/HP-hr <sup>c</sup>	Hourly	Each engine of FGENGINES-P3	SC V.1	R 336.1205(1)(a), R 336.1702(a)
5. CO	0.14 g/HP-hr	Hourly	Each engine of FGENGINES-P3	SC V.1	R 336.1205(1)(a)

<sup>a</sup> This limit will remain in effect until the permanent shutdown of all 9 existing RICE that were installed between 1946-1955.

<sup>b</sup> NOx mass emissions shall be calculated using a default NOx emission factor of 0.6 g/hp-hr, until an emission factor has been established from stack testing. Thereafter, the most recent stack test shall be used.

<sup>c</sup> This emission limit includes formaldehyde, unlike the VOC emission limit under FGNSPSJJJJ.

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Natural Gas	394 MMscf/yr <sup>a</sup>	12-month rolling time period as determined at the end of each calendar month	FGENGINES-P3	SC VI.2	R 336.1205(1)(a)(ii)(D), R 336.2802(4), 40 CFR 52.21(c) & (d)

<sup>a</sup> This limit will remain in effect until the permanent shutdown of all 9 existing RICE that were installed between 1946-1955.

2. The permittee shall burn only natural gas, as defined in 40 CFR §60.4248, in FGENGINES-P3. **(R 336.1205(1)(a)(ii)(D), R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the natural gas usage for each engine included in FGENGINES-P3 on a continuous basis. **(R 336.1205, 40 CFR 52.21 (c) & (d))**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after commencement of initial startup, the permittee shall verify emission rates of NOx, VOCs (including formaldehyde), and CO from FGENGINES-P3 by testing at owner's expense, in accordance with Department requirements. Testing shall be based on an average of three 1-hour or longer test runs performed using an approved EPA Method listed below to demonstrate compliance with the emission limits in SC I.2, I.4, and SC I.5:

Pollutant	Test Method Reference
NOx	40 CFR Part 60, Appendix A
VOCs	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 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 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor, in a satisfactory manner, the natural gas usage for each engine included in FGENGINES-P3 on a continuous basis. **(R 336.1205(1)(a)(ii)(D), 40 CFR 52.21 (c) & (d))**
2. Until such time the 9 existing RICE that were installed between 1946-1955 are permanently shut down, the permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period NOx and VOC emission calculation records and natural gas fuel use records for FGENGINES-P3, as required by SC I.1 and SC II.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2802(4), 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

1. 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 FGENGINES-P3. **(R 336.1201(7)(a))**

**VIII. STACK/VENT RESTRICTIONS**

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

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-ENGINE3-1	36	65	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-ENGINE3-2	36	65	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-ENGINE3-3	36	65	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-ENGINE3-4	36	65	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-ENGINE3-5	36	65	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**The following conditions apply to:**  
**FGNSPSJJJJ**

**DESCRIPTION:** 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Requirements for non-emergency engines greater than 500 brake HP, commencing construction after June 12, 2006 and manufactured on or after July 1, 2010.

**Emission Units:** EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5

**POLLUTION CONTROL EQUIPMENT:** Each engine is equipped with oxidation catalyst.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	1.0 g/HP-hr or 82 ppmvd at 15% O <sub>2</sub> <sup>a</sup>	Hourly	Each engine in FGNSPSJJJJ	SC V.1, SC VI.1	40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ
2. VOC	0.7 g/HP-hr or 60 ppmvd at 15% O <sub>2</sub> <sup>a,b</sup>	Hourly	Each engine in FGNSPSJJJJ	SC V.1, SC VI.1	40 CFR 60.4233(e), Table 1 to 40 CFR 60 Subpart JJJJ

<sup>a</sup> Owners and operators of stationary *non-certified* SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>. (See Table 1 to 40 CFR 60 Subpart JJJJ.)  
<sup>b</sup> For purposes of this emission limit, when calculating emissions of VOC, emissions of formaldehyde should not be included. (See Table 1 to 40 CFR 60 Subpart JJJJ.)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year and maximum engine power, the permittee shall meet the following requirements for FGNSPSJJJJ:
  - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions;
  - b) Only adjust engine settings according to and consistent with the manufacturer's instructions; and
  - c) Meet the requirements as specified in 40 CFR 1068, Subparts A through D, 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.

**(40 CFR 60.4243(b)(1))**

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

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

NA

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. If the permittee purchased a non-certified engine or operates a certified engine in a non-certified manner, the permittee must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance with the emission limits in SC I.1 and SC I.2. Each performance test required in 40 CFR 60.4244 shall be based on an average of three 1-hour or longer test runs conducted according to the requirements specified in 40 CFR 60.4244 and Table 2 to 40 CFR Part 60 Subpart JJJJ, as applicable. **(40 CFR 60.4243(b)(2)(ii), 40 CFR 60.4244)**

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall keep records of the following information:
  - a) All notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ and all documentation supporting any notification.
  - b) Maintenance conducted on the engine.
  - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
  - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards as specified in 40 CFR 60.4233(e).**(40 CFR 60.4245(a))**

#### **VII. REPORTING**

1. If the permittee purchased a non-certified engine or operates a certified engine in a non-certified manner, the permittee shall submit to the AQD District Supervisor an initial notification as required in §60.7(a)(1). The notification must include the following information: **(40 CFR 60.4245(c))**
  - a) Name and address of the owner or operator;
  - b) The address of the affected source;
  - c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
  - d) Emission control equipment; and
  - e) Fuel used.
2. If the permittee is subject to performance testing according to 40 CFR 60.4243(b)(2)(ii), the permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed. **(40 CFR 60.4245(d))**

#### **VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the federal Standards of Performance for Stationary Spark Ignition Internal Combustion Engines as specified in 40 CFR Part 60 Subpart A and Subpart JJJJ, as they apply to the engines. **(40 CFR Part 60 Subparts A & JJJJ)**

**The following conditions apply to:**  
**FGNESHAPZZZZ**

**DESCRIPTION:** 40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) for new or reconstructed spark ignition non-emergency engines greater than 500 brake hp located at a major source of HAP emissions

**Emission Units:** EUENGINE3-1, EUENGINE3-2, EUENGINE3-3, EUENGINE3-4, EUENGINE3-5

**POLLUTION CONTROL EQUIPMENT:** Each engine is equipped with oxidation catalyst.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. CO or Formaldehyde	93 percent or more reduction in CO emissions or Formaldehyde concentration of $\leq 14$ ppmvd at 15% O <sub>2</sub> <sup>a</sup>	During all periods of operation, except during periods of startup	Each engine in FGNESHAPZZZZ	SC V.1-V.8	40 CFR 63.6600(b), Table 2a to 40 CFR 63 Subpart ZZZZ

<sup>a</sup> These limits apply at 100% load (plus or minus 10% load) during all periods of operation, except for periods of startup. (40 CFR Part 63 Subpart ZZZZ, Table 2a, 40 CFR 63.6605(a))

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. At all times, the permittee must operate and maintain each engine in FGNESHAPZZZZ, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.6605(b))**
2. The permittee must meet the following operating limitation, except during periods of startup:
  - a) Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
  - b) Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F or as established pursuant to a petition for a different temperature range granted in accordance with 40 CFR 63.8(f).  
**(40 CFR 63.6600(b), Table 2b of 40 CFR Part 63 Subpart ZZZZ)**
3. The permittee shall prepare a site-specific monitoring plan that addresses monitoring system design, data collection, and the quality assurance and quality control elements outlined below, and in 40 CFR 63.6625(b)(1)(i) through (v) and in §63.8(d).
  - a) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
  - b) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

- c) Equipment performance evaluations, system accuracy audits, or other audit procedures;
- d) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3);
- e) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

“Monitoring System” refers to **Continuous Monitoring Systems (CMS)**, which includes **Continuous Parameter Monitoring Systems (CPMS)**. As specified in §63.8(f)(4), the permittee may request approval of alternative monitoring system quality assurance and quality control procedures. **(40 CFR 63.6625(b))**

- 4. The permittee shall conduct a performance evaluation of each CPMS in accordance with their site-specific monitoring plan. The permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in their site-specific monitoring plan at least annually. **(40 CFR 63.6625(b)(5) & (6))**
- 5. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standard applicable to all times other than startup in SC I.1 applies. **(40 CFR 63.6625(h))**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

- 1. The permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in their site-specific monitoring plan required by SC III.3. **(40 CFR 63.6625(b)(2))**
- 2. The permittee shall ensure that the CPMS collects data at least once every 15 minutes. For a CPMS that measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. **(40 CFR 63.6625(b)(3) & (4))**

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

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

- 1. The permittee shall conduct the initial performance test and start operation of the CPMS within 180 days after initial startup, for each engine in FGNESHAPZZZZ. During the initial performance test, the permittee must establish each operating limitation in Table 2b of 40 CFR 63 Subpart ZZZZ that applies. **(40 CFR 63.6610(a))**
- 2. The permittee shall perform subsequent performance tests for each engine in FGNESHAPZZZZ on a semiannual basis. The permittee may reduce the frequency of subsequent performance tests to annually after compliance has been demonstrated for two consecutive tests. The permittee shall resume semiannual performance tests if the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or if the permittee has deviated from any of their operating limitations. **(40 CFR 63.6615, Table 3 of 40 CFR 63 Subpart ZZZZ)**
- 3. The permittee shall conduct each performance test according to the requirements specified in 40 CFR Part 63, Subpart ZZZZ Table 4, including the requirements specified in SC V.4 through SC V.6. The permittee is not required to start up the engine solely to conduct the performance test. If the engine is non-operational, the permittee shall conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load. **(40 CFR 63.6620(b))**
- 4. Unless an alternative is approved by the AQD District Supervisor, the permittee shall meet the following requirements for selecting the sampling port location and the number/location of traverse points at the inlet and outlet of the control device when measuring CO, formaldehyde, O<sub>2</sub>, and moisture (as applicable):
  - a) Ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid;
  - b) Ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3 percent of the measurement line ('3-point long line');

- c) If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at '3-point long line';
- d) Otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.

**(40 CFR 63.6620(b), Table 4 of 40 CFR 63 Subpart ZZZZ)**

- 5. The permittee shall measure O<sub>2</sub> or CO<sub>2</sub> at the inlet and outlet of the control device (as applicable) using Method 3 or 3A or 3B of 40 CFR Part 60, Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary). Methods 3A and 10 may be used as options to ASTM-D6522-00 (2005). The permittee shall measure O<sub>2</sub> or CO<sub>2</sub> concentration at the same time as the measurements for CO or formaldehyde concentration. **(40 CFR 63.6620(b), Table 4 of 40 CFR 63 Subpart ZZZZ)**
- 6. If applicable, the permittee shall measure moisture using Method 4 of 40 CFR Part 60, Appendix A-3, or Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03. The permittee shall measure moisture content at the same time and location as the measurements for formaldehyde or CO concentration. **(40 CFR 63.6620, Table 4 of 40 CFR 63 Subpart ZZZZ)**
- 7. If the permittee is complying with the requirement to reduce CO emissions, the permittee shall measure CO at the inlet and outlet of the control device using ASTM D6522-00 (Reapproved 2005) (heated probe not necessary) or Method 10 of 40 CFR Part 60, Appendix A-4. Methods 3A and 10 may be used as options to ASTM-D6522-00 (2005). **(40 CFR 63.6620, Table 4 of 40 CFR 63 Subpart ZZZZ)**
- 8. If the permittee is demonstrating compliance with the formaldehyde ppmvd limitation, the permittee shall measure formaldehyde concentration at the exhaust of the stationary RICE using Method 320 or 323 of 40 CFR Part 63, Appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130. The formaldehyde concentration must be determined at 15 percent O<sub>2</sub>, on dry basis. **(40 CFR 63.6620, Table 4 of 40 CFR 63 Subpart ZZZZ)**
- 9. The permittee shall conduct three separate test runs for each performance test required by 40 CFR Part 63, Subpart ZZZZ as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in Subpart ZZZZ. **(40 CFR 63.6620(d))**
- 10. If applicable, the permittee shall use Equation 1 of 40 CFR Part 63, Subpart ZZZZ to determine compliance with the CO percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

C<sub>i</sub> = concentration carbon monoxide (CO) at the control device inlet,

C<sub>o</sub> = concentration of CO at the control device outlet, and

R = percent reduction of CO emissions.

**(40 CFR 63.6620(e)(1))**

- 11. The permittee shall normalize the CO concentration at the inlet and outlet of the control device or the formaldehyde concentration at the exhaust of the stationary RICE (as applicable) to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs 40 CFR 63.6620(e)(2)(i) through (iii). **(40 CFR 63.6620(e)(2))**
- 12. The permittee shall determine the engine percent load during a performance test by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. **(40 CFR 63.6620(i))**

## **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3), 40 CFR 63.6660)**

1. The permittee shall continuously monitor the catalyst inlet temperature at all times that the stationary RICE is operating except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. This monitoring data shall be kept on file at the facility and made available to the Department upon request. **(40 CFR 63.6635(b), 63.6660, Table 6 of 40 CFR 63 Subpart ZZZZ)**
2. The permittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The permittee must, however, use all the valid data collected during all other periods. **(40 CFR 63.6635(c))**
3. The permittee shall keep the following records:
  - a) A copy of each notification and report submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in §63.10(b)(2)(xiv).
  - b) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or of the air pollution control and monitoring equipment.
  - c) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
  - 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 in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

These records shall be kept on file at the facility and made available to the Department upon request **(40 CFR 63.6655(a) & 63.6660)**

4. The permittee shall maintain the following records for each CPMS on file at the facility and make available to the Department upon request:
  - a) Records described in §63.10(b)(2)(vi) through (xi).
  - b) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
  - c) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.**(40 CFR 63.6655(b) & 63.6660)**
5. The permittee shall maintain the following records as required to demonstrate compliance with the continuous compliance demonstration method specified in SC III.2. These records shall be kept on file at the facility and made available to the Department upon request.
  - a) Catalyst inlet temperature data reduced to 4-hour rolling averages; and
  - b) Pressure drop across the catalyst measured monthly**(40 CFR 63.6655(d) & 63.6660, Table 6 of 40 CFR 63 Subpart ZZZZ)**

## **VII. REPORTING**

1. The permittee shall submit an initial notification of compliance status. The permittee has demonstrated initial compliance if all the following requirements have been met:
  - a) The average reduction of emissions of CO determined from the initial performance test is equal to or greater than the required CO percent reduction; or  
The average formaldehyde concentration determined from the initial performance test is equal to or less than the formaldehyde concentration limit; and
  - b) The permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and

- c) The permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.  
**(40 CFR 63.6630, Table 5 of 40 CFR 63 Subpart ZZZZ)**
2. The permittee shall include the following information in each notification of compliance status report:
  - a) The engine model number,
  - b) The engine manufacturer,
  - c) The year of purchase,
  - d) The manufacturer's site-rated brake horsepower,
  - e) The ambient temperature, pressure, and humidity during the performance test,
  - f) The calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. All assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accuracy in percentage of true value must be provided.  
**(40 CFR 63.6620(i))**
3. The permittee shall report each instance in which they did not meet each emission limitation in SC I.1 or operating limitation in SC III.2. These instances are deviations from the emission and operating limitations in 40 CFR Part 63 Subpart ZZZZ. These deviations must be reported according to the requirements in §63.6650. The permittee shall also conduct a performance test to demonstrate that they are meeting the required emission limitation applicable to their stationary RICE if the catalyst is changed. The permittee shall also reestablish the values of the operating parameters during the initial performance test. For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. **(40 CFR 63.6640(b) & (d))**
4. The permittee shall report each instance in which they did not meet an applicable general provision as listed in Table 8 to 40 CFR Part 63 Subpart ZZZZ. **(40 CFR 63.6640(e))**
5. The permittee shall submit all applicable notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h). **(40 CFR 63.6645(a))**
6. The permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1). **(40 CFR 63.6645(g))**
7. The permittee shall submit the Notification of Compliance Status for demonstrating initial compliance, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2). **(40 CFR 63.6645(h))**
8. The permittee shall submit a first semiannual Compliance report which must cover the period beginning on the compliance date that is specified for the affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for the source in §63.6595. The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for the affected source in §63.6595. Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. The Administrator may approve a different schedule for submission of reports under §63.10(a). **(40 CFR 63.6650(b), Table 7 of 40 CFR 63 Subpart ZZZZ)**
9. The permittee may submit the first and subsequent Compliance reports according to the dates established by AQD for submitting the semiannual reports required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) of the Title V program instead of the dates specified in SC VII.8. **(40 CFR 63.6650(b))**

10. The permittee shall include the following information in each Compliance report:
- a) Company name and address.
  - b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - c) Date of report and beginning and ending dates of the reporting period.
  - d) If a malfunction occurred during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
  - e) If there are no deviations from any emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period.
  - f) If there were no periods during which the CMS was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
  - g) If there was a deviation from an emission or operating limitation, the following information must be included.
    - i. The date and time that each malfunction started and stopped.
    - ii. The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
    - iii. The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
    - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
    - v. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
    - vi. A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
    - vii. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
    - viii. An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
    - ix. A brief description of the stationary RICE.
    - x. A brief description of the CMS.
    - xi. The date of the latest CMS certification or audit.
    - xii. A description of any changes in CMS, processes, or controls since the last reporting period.

**(40 CFR 63.6650(c) & (e))**

11. The permittee shall report all deviations as defined in 40 CFR 63 Subpart ZZZZ in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) of the Title V program. If the permittee submits a Compliance report pursuant to 40 CFR 63 Subpart ZZZZ along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in 40 CFR 63 Subpart ZZZZ, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. **(40 CFR 63.6650(f))**

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines as they apply to the engines. **(40 CFR 63.6595 & 63.6665)**

**The following conditions apply to:**  
**FGNESHAPDDDDD**

**DESCRIPTION:** 40 CFR Part 63, Subpart DDDDD - Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants. These new boilers or process heaters must comply with this subpart upon startup.

**Emission Units:**

Less than 5 MMBtu/hr	EUFGHT-3-04-01
Equal to or greater than 10 MMBtu/hr	EUBOIL-3-09-01

**POLLUTION CONTROL EQUIPMENT:** EUBOIL-3-09-01 has low-NOx burner design.

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

1. The permittee shall only burn fuels as allowed in the Unit designed to burn gas 1 subcategory definition in 40 CFR 63.7575. **(40 CFR 63.7499(I))**

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

1. The permittee must meet the requirements in paragraphs (a)(1) and (3) of 40 CFR 63.7500, as listed below, except as provided in paragraphs (b) and (e) of 40 CFR 63.7500, stated in SC III.2 and SC III.3. The permittee must meet these requirements at all times the affected unit is operating. **(40 CFR 63.7500(a))**
  - a) The permittee must meet each work practice standard in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies to the boiler or process heater, for each boiler or process heater at the source. **(40 CFR 63.7500(a)(1))**
  - b) At all times, the permittee must operate and maintain any affected source (as defined in 40 CFR 63.7490), 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))**
2. As provided in 40 CFR 63.6(g), EPA may approve use of an alternative to the work practice standards. **(40 CFR 63.7500(b))**
3. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR Part 63, Subpart DDDDD, or the operating limits in Table 4 of 40 CFR Part 63, Subpart DDDDD. Boilers and process heaters in the units designed to burn gas 1 fuel subcategory with a heat input capacity: **(40 CFR 63.7500(e))**
  - a) Of less than or equal to 5 MMBtu per hour must complete a tune-up every 5-years as specified in 40 CFR 63.7540, stated in SC IX.4. **(40 CFR 63.7500(e))**
  - b) Greater than 5 MMBtu per hour and less than 10 MMBtu per hour must complete a tune-up every 2-years as specified in 40 CFR 63.7540, stated in SC IX.4. **(40 CFR 63.7500(e))**

- c) Of 10 MMBtu per hour or greater and without a continuous oxygen trim system must complete a tune-up of the boiler or process heater annually as specified in §63.7540, stated in SC IX.4. **(Table 3 to Subpart DDDDD of Part 63)**
4. The permittee must demonstrate initial compliance with the applicable work practice standards in Table 3 to 40 CFR Part 63, Subpart DDDDD within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7515(d), stated in SC III.5.a, following the initial compliance date specified in 40 CFR 63.7495(a), stated in SC IX.1. Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d), stated in SC III.5.b. **(40 CFR 63.7510(g))**
5. If the permittee is required to meet an applicable tune-up work practice standard, the permittee must:
  - a) Conduct the first annual tune-up no later than 13-months after the initial startup of the new or reconstructed boiler or process heater, the first biennial tune-up no later than 25-months after the initial startup of the new or reconstructed boiler or process heater, or the first 5-year tune-up no later than 61-months after the initial startup of the new or reconstructed boiler or process heater.
  - b) Conduct an annual performance tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a; biennial performance tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b; or 5-year performance tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c. Each annual tune-up specified in 40 CFR 63.7540(a)(10) must be no more than 13-months after the previous tune-up. Each biennial tune-up specified in 40 CFR 63.7540(a)(11) must be conducted no more than 25-months after the previous tune-up. Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61-months after the previous tune-up. **(40 CFR 63.7515(d))**

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

NA

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

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

NA

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

Records shall be maintained on file for a period of five years. **(40 CFR 63.7560(b))**

1. The permittee must keep records according to paragraphs (a)(1) and (2) of 40 CFR 63.7555, as listed below. **(40 CFR 63.7555(a))**
  - a) A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.7555(a)(1))**
  - b) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.7555(a)(2))**
2. If the permittee operates a unit in the unit designed to burn gas 1 subcategory that is subject to 40 CFR Part 63, Subpart DDDDD, and 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 Parts 61, Part 63, 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'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))**

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 63.7560(b))**
5. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2-years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3-years. **(40 CFR 63.7560(c))**

## **VII. REPORTING**

1. The permittee must meet the notification requirements in 40 CFR 63.7545 according to the schedule in 40 CFR 63.7545, both stated in SC VII.2 through SC VII.4, and in Subpart A of 40 CFR Part 63. **(40 CFR 63.7495(d))**
2. The permittee must report each instance in which they did not meet each emission limit and operating limit in Tables 1 through 4 to this subpart that applies. These instances are deviations from the emission limits or operating limits, respectively, in this subpart. These deviations must be reported according to the requirements in 40 CFR 63.7550, cited in SC VII.6. **(40 CFR 63.7540(b))**
3. The permittee must submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8(e), (f)(4) and (6), and 40 CFR 63.9(b) through (h) that apply to the permittee by the dates specified. **(40 CFR 63.7545(a))**
4. As specified in 40 CFR 63.9(b)(4) and (5), if the permittee starts up the new or reconstructed affected source on or after January 31, 2013, the permittee must submit an Initial Notification not later than 15-days after the actual date of startup of the affected source. **(40 CFR 63.7545(c))**
5. If the permittee operates a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to 40 CFR Part 63, Subpart DDDDD, and 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 specified in paragraphs (f)(1) through (5) of 40 CFR 63.7545, as listed below. **(40 CFR 63.7545(f))**
  - 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))**
6. The permittee must submit each report in Table 9 of 40 CFR Part 63, Subpart DDDDD that applies. **(40 CFR 63.7550(a))**
7. Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report, according to paragraph (h) of 40 CFR 63.7550, stated in SC VII.9, by the date in Table 9 of 40 CFR Part 63, Subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below. For units that are subject only to a requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c, and not subject to emission limits or operating limits, the permittee may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of 40 CFR 63.7550, as listed below, instead of a semi-annual compliance report. **(40 CFR 63.7550(b))**

- a) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.1, and ending on December 31 after the compliance date that is specified for the source in 40 CFR 63.7495, stated in SC IX.1. When submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date specified for each boiler or process heater in 40 CFR 63.7495 and ending on December 31 within 1, 2, or 5-years, as applicable, after the compliance date that is specified in 40 CFR 63.7495. **(40 CFR 63.7550(b)(1))**
  - b) The first semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR 63.7495, stated in SC IX.1. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(2), 40 CFR 63.7550(b)(5))**
  - c) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1, 2, or 5-year periods from January 1 to December 31. **(40 CFR 63.7550(b)(3))**
  - d) Each subsequent semi-annual compliance report must be postmarked or submitted no later than September 15 or March 15, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than March 15. **(40 CFR 63.7550(b)(4), 40 CFR 63.7550(b)(5))**
8. A compliance report must contain the following information depending on how the permittee chooses to comply with the limits set in this rule. **(40 CFR 63.7550(c))**
- a) If the facility is subject to the requirements of a tune up the permittee must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii), (xiv), and (xvii) of 40 CFR 63.7550. **(40 CFR 63.7550(c)(1))**
  - b) 40 CFR 63.7550(c)(5) is as follows:
    - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
    - ii. Process unit information, emissions limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
    - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
    - iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR 63.7540(a)(10), stated in SC IX.4.a, biennial tune-up according to 40 CFR 63.7540(a)(11), stated in SC IX.4.b, or 5-year tune-up according to 40 CFR 63.7540(a)(12), stated in SC IX.4.c. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
    - v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
9. The permittee must submit the reports according to the procedures specified in paragraph (h)(3) of 40 CFR 63.7550, as listed below. **(40 CFR 63.7550(h))**
- a) The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's CDX.) The permittee must use the appropriate electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR Part 63, Subpart DDDDD, the permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90-days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

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

NA

**IX. OTHER REQUIREMENT(S)**

1. If the permittee has a new or reconstructed boiler or process heater, the permittee must comply with 40 CFR Part 63, Subpart DDDDD by April 1, 2013, or upon startup of each boiler or process heater, whichever is later. **(40 CFR 63.7495(a))**
2. The permittee must be in compliance with the work practice standards of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7505(a))**
3. For affected sources (as defined in 40 CFR 63.7490) that have not operated since the previous compliance demonstration and more than one year has passed since the previous compliance demonstration, the permittee must complete a subsequent tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi), stated in SC IX.6.a, and the schedule described in 40 CFR 63.7540(a)(13), stated in SC IX.6.d, for units that are not operating at the time of their scheduled tune-up. **(40 CFR 63.7515(g))**
4. The permittee must demonstrate continuous compliance with the work practice standards in Table 3 of 40 CFR Part 63, Subpart DDDDD that applies according to the methods specified in paragraphs (a)(10) through (13) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a))**
  - a) If the boiler or process heater has a heat input capacity of 10 MMBtu per hour or greater, the permittee must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540, as listed below. The tune-up must be conducted while burning the type of fuel or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12-months prior to the tune-up. This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. **(40 CFR 63.7540(a)(10))**
    - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36-months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment. **(40 CFR 63.7540(a)(10)(i))**
    - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
    - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36-months from the previous inspection. **(40 CFR 63.7540(a)(10)(iii))**
    - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
    - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**
    - vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (a)(10)(vi)(A) through (C) of 40 CFR 63.7540, as listed below. **(40 CFR 63.7540(a)(10)(vi))**
      - (1) The concentrations of CO in the effluent stream in ppm by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
      - (2) A description of any corrective actions taken as a part of the tune-up. **40 CFR 63.7540(a)(10)(vi)(B))**
      - (3) The type and amount of fuel used over the 12-months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

- b) If the boiler or process heater has a heat input capacity of less than 10 MMBtu per hour (except as specified in paragraph (a)(12) of 40 CFR 63.7540), the permittee must conduct a biennial tune-up of the boiler or process heater as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. **(40 CFR 63.7540(a)(11))**
  - c) If the boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 MMBtu per hour and the unit is in the units designed to burn gas 1 subcategory, the permittee must conduct a tune-up of the boiler or process heater every 5-years as specified in paragraphs (a)(10)(i) through (vi) of 40 CFR 63.7540 to demonstrate continuous compliance. The permittee may delay the burner inspection specified in paragraph (a)(10)(i) of 40 CFR 63.7540 until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72-months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5-years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. **(40 CFR 63.7540(a)(12))**
  - d) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30-calendar days of startup. **(40 CFR 63.7540(a)(13))**
5. Table 10 of 40 CFR Part 63, Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 applies to the permittee. **(40 CFR 63.7565)**