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

August 30, 2023

PERMIT TO INSTALL
105-23

ISSUED TO
Three Rivers Renewables, LLC

LOCATED AT
55575 Frank Jones Road
Mendon, Michigan 49072

IN THE COUNTY OF
St. Joseph

STATE REGISTRATION NUMBER
P1375

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: **May 15, 2023**	
DATE PERMIT TO INSTALL APPROVED: **August 30, 2023**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H_2S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO_x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO_2	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

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 Environment, Great Lakes, and Energy, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 condition 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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUGCU	Gas cleaning and upgrading unit including an iron-based filter and activated carbon media. EUGCU is used to upgrade the raw anaerobic biogas (collected from the digesters) to meet pipeline specifications. Following H_2S removal, the biogas will be injected into the pipeline and sold as renewable natural gas.	NA
EUFLARE	One digester gas flare used as backup for the EUGCU. The flare is capable of burning up to 940 scfm, giving a heat input capacity of 36 MMBTU/hr when using the estimated higher heating value of the digester gas of 530 Btu/scf.	NA
EUBOILER	Natural gas-fired boiler used to provide heat to the digesters when additional heat is necessary. Maximum heat input: 10 MMBTU/hr.	NA
EUCHP1	A 1440 HP natural gas-fueled combined heat and power (CHP) unit. The CHP unit is used to supply electricity to the gas upgrading unit	NA
EUCHP2	A 780 HP natural gas-fueled combined heat and power (CHP) unit. The CHP unit is used to supply electricity to the gas upgrading unit	NA

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 336.1291.

EUGCU
EMISSION UNIT CONDITIONS

DESCRIPTION

Gas cleaning and upgrading unit including an iron-based filter and activated carbon media. EUGCU is used to upgrade the raw anaerobic biogas (collected from the digesters) to meet pipeline specifications. Following H_2S removal, the biogas will be injected into the pipeline and sold as renewable natural gas.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The hydrogen sulfide (H_2S) concentration of the vent gas exiting EUGCU shall not exceed 4.05 ppmv at all times. **(R 336.1225, 40 CFR 52.21(c) & (d))**

2. The volumetric flow rate for the vent gas exhausted from EUGCU shall not exceed a maximum of 290 standard cubic feet per minute at all times. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance/malfunction abatement plan (PM/MAP) for EUGCU. After approval of the PM/MAP by the AQD District Supervisor, the permittee shall not operate EUGCU unless the PM/MAP, or an alternate plan approved by the AQD District Supervisor, is implemented, and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
   a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
   b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
   c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
   d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the PM/MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM/MAP within 45 days after such an event occurs. The permittee shall also amend the PM/MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM/MAP and any amendments to the PM/MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM/MAP or amended PM/MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

2. No later than 45 days after the completion of installation of the equipment, the permittee shall submit, implement, and maintain a nuisance minimization plan for odors as described in Appendix A, for EUGCU. If at any time the plan fails to address or inadequately addresses odor management, the permittee shall amend the plan within 45 days after such an event occurs. The permittee shall also amend the plan within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the plan and any amendments to the plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the plan or amended plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to minimize odors.[1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor the H_2S content at the outlet of the activated carbon beds of EUGCU on a continuous basis. Continuous shall be defined in this permit as at least one reading every 15 minutes. Satisfactory operation includes operating and maintaining EUGCU in accordance with an approved PM / MAP for EUGCU, as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901)**

2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the volumetric flow rate of vent gas exhausted from EUGCU, on a continuous basis. **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

3. No later than 180 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, Best Management Practices Plan (BMPP) for the use of ferrous chloride to reduce the H_2S concentration in the digester. The BMPP plan, at a minimum, should include the following:
   a) A detailed plan for when ferrous chloride should be added into the digester, including parameters that will be monitored, the amount and what frequency the ferrous chloride will be added.
   b) A detailed plan explaining how the ferric chloride will reduce the H_2S concentration in the digester.
   c) The normal operating range of the H_2S concentration in the digester

   If at any time the BMPP fails to address or inadequately addresses the addition of ferrous chloride into the digester, the permittee shall amend the BMPP within 45 days after such an event occurs. The permittee shall also amend the BMPP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the BMPP and any amendments to the BMPP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the BMPP or amended BMPP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures and/or operational changes to achieve compliance with all applicable emission limits and permit conditions. **(R 336.1205)**

V. TESTING/SAMPLING

NA

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, all records related to, or as required by, the PM/MAP. **(R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

2. The permittee shall keep, in a satisfactory manner, continuous records of the H_2S concentration in the vent gas exiting EUGCU. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

3. The permittee shall keep, in a satisfactory manner, continuous records of the volumetric flow rate of vent gas exhausted from EUGCU. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1901, 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 EUGCU. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVGCU	4	22.3	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

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

EUFLARE
EMISSION UNIT CONDITIONS

DESCRIPTION

One digester gas flare used as backup for the EUGCU. The flare is capable of burning up to 940 scfm, giving a heat input capacity of 36 MMBTU/hr when using the estimated higher heating value of the digester gas of 530 Btu/scf.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. SO_2	28.11 tpy	12-month rolling time period as determined at the end of each calendar month	EUFLARE	SC VI.7	R 336.1205, 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Biogas[A]	208.5 MMscf/yr	12-month rolling time period as determined at the end of each calendar month	EUFLARE	SC VI.6	R 336.1205, R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d)
2. H_2S concentration of the biogas	500 ppmv [B]	Operating hour	EUFLARE	SC VI.3	R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)
3. H_2S concentration of the biogas	5,000 ppmv [C]	Operating hour	EUFLARE	SC VI.3	R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)

[A] "Biogas" is defined as gas sent to the flare from either the digester or from EUGCU
[B] This limit applies for 3750 hours per 12-month rolling time period.
[C] This limit applies for 1250 hours per 12-month rolling time period.

4. The permittee shall burn only biogas and natural gas in EUFLARE. **(R 336.1225, 40 CFR 52.21(c) & (d))**

5. The volumetric flow rate for EUFLARE shall not exceed a maximum of 940 standard cubic feet per minute at all times. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUFLARE for more than 5000 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))**

2. No later than 90 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for EUFLARE. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate EUFLARE unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented, and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
   a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
   b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
   c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
   d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   If at any time the PM/MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM/MAP within 45 days after such an event occurs. The permittee shall also amend the PM/MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM / MAP and any amendments to the PM/MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM/MAP or amended PM/MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

3. No later than 45 days after the completion of installation of the equipment, the permittee shall submit, implement, and maintain a nuisance minimization plan for odors as described in Appendix A, for EUFLARE. If at any time the plan fails to address or inadequately addresses odor management, the permittee shall amend the plan within 45 days after such an event occurs. The permittee shall also amend the plan within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the plan and any amendments to the plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the plan or amended plan shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to minimize odors. [1] **(R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner, a device to monitor and record the volumetric flow rate of biogas burned in EUFLARE, on a continuous basis. Continuous shall be defined in this permit as at least one reading every 15 minutes. **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the H_2S content of biogas sent to EUFLARE. Satisfactory manner includes operating and maintaining EUFLARE in accordance with an approved PM / MAP for EUFLARE, as required in SC III.1. **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep, in a satisfactory manner, all records related to, or as required by, the PM/MAP. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

3. The permittee shall keep, in a satisfactory manner, hourly records of the H_2S content of the biogas routed to EUFLARE, for each hour that the flare is operated. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

4. The permittee shall keep, in a satisfactory manner, a log of the dates and the number of hours where the H_2S content of the digester biogas is greater than 500 ppmv on a monthly and 12-month rolling time period. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

5. The permittee shall keep, in a satisfactory manner, continuous records of the volumetric flow rate of biogas routed to EUFLARE. **(R 336.1224, R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d))**

6. The permittee shall keep, in a satisfactory manner, records of the total volume (MMscf) biogas burned in EUFLARE on a monthly and 12-month rolling time period. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**

7. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling total SO_2 mass emissions for EUFLARE. Calculations shall be performed using data collected through the devices required in SC IV.1 and SC IV.2. **(40 CFR 52.21(c) & (d))**

8. The permittee shall keep, in a satisfactory manner acceptable to the AQD District Supervisor, a log of the monthly and 12-month rolling basis operating hours of EUFLARE. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21)**

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 EUFLARE. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFLARE	6	15	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

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

EUBOILER
EMISSION UNIT CONDITIONS

DESCRIPTION

Natural gas-fired boiler used to provide heat to the digesters when additional heat is necessary. Maximum heat input: 10 MMBTU/hr.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

1. The permittee shall burn only natural gas in EUBOILER. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, 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 EUBOILER shall not exceed 10 MMBTU per hour on a fuel heat input basis. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

NA

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 each boiler within EUBOILER. **(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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER	16	10	R 336.1225, 40 CFR 52.21(c)&(d)

IX. OTHER REQUIREMENTS

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

EUCHP1
EMISSION UNIT CONDITIONS

DESCRIPTION

A 1440 HP natural gas-fueled combined heat and power (CHP) unit. The CHP unit is used to supply electricity to the gas upgrading unit

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO_x	1.0 g/HP-hr	Hourly	EUCHP1	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
2. CO	2.0 g/HP-hr	Hourly	EUCHP1	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
3. VOC	0.7 g/HP-hr[a]	Hourly	EUCHP1	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
4. Formaldehyde	0.565 lbs/hr	Hourly	EUCHP1	SC V.2	336.1225(2)[1]
5. Formaldehyde	2.47 tpy	12-month rolling time period as determined at the end of each calendar month.	EUCHP1	SC VI.6	336.1225(2)[1]

[a]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 LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in EUCHP1. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after the initial startup of EUCHP1, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for EUCHP1. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate EUCHP1 unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
   a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
   b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
   c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
   d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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

2. The permittee shall operate and maintain EUCHP1 such that it meets the emission limits over the entire life of the engine. **(40 CFR 60.4234)**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUCHP1:
   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b) May only adjust engine settings according to and consistent with the manufacturer's emission-related written instructions,
   c) Meet the requirements as specified in 40 CFR 1068 Subparts A through D.

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

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for EUCHP1 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The nameplate capacity of EUCHP1 shall not exceed 1440 HP as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (3))**

V. TESTING/SAMPLING

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

1. If EUCHP1 is a non-certified engine and control device or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee must demonstrate compliance as follows:
   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which the engines in FGENGINES will be operated, but no later than 180 days after initial startup.

b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years, whichever comes first.

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

2. Within 180 days after commencement of initial startup of EUCHP1, the permittee shall verify formaldehyde emission rates from EUCHP1 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed below.

Pollutant	Test Method Reference
Formaldehyde	40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[1] **(R 336.1225 (2))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep all required records and/or calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d))**

2. If EUCHP1 is a certified engine, the permittee shall keep, in a satisfactory manner, the following records:
a) Documentation indicating that each engine has been maintained according to manufacturer written instructions, is certified to meet the emission standards, and other information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

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

3. If EUCHP1 is a non-certified engine (or operated in a non-certified manner), the permittee shall keep, in a satisfactory manner, the following records:
a) Testing for each engine, as required in SC V.1.
b) Maintenance activities for each engine, as required by SC III.4.

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

4. The permittee shall keep records of notifications submitted for the completion of construction and start-up of EUCHP1. **(40 CFR 60.4245(a))**

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 for EUCHP1. This information shall include, but shall not be limited to the following:

a) Compliance tests and any testing required under the special conditions of this permit.
b) Monitoring data.
c) Verification of heat input capacity.
d) Identification, type, and amount of fuel combusted on a calendar month basis.
e) All calculations necessary to show compliance with the limits contained in this permit.
f) All records related to, or as required by, the MAP.

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

6. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling formaldehyde mass emissions for EUCHP1, as required by SC I.5. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed according to a method approved by the District Supervisor. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. If EUCHP1 has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
   a) The date construction of the engine commenced.
   b) Name and address of the owner or operator.
   c) The address of the affected source.
   d) The engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement.
   e) The emission control equipment.
   f) Fuel used in the engine.

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

2. The permittee shall submit a notification specifying whether EUCHP1 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(R 336.1201(3))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE01	20	29	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the New Source Performance Standards as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to EUCHP1. **(40 CFR Part 60 Subparts A & JJJJ)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63 Subpart A and Subpart ZZZZ, as they apply to EUCHP1. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6595)**

EUCHP2
EMISSION UNIT CONDITIONS

DESCRIPTION

A 780 HP natural gas-fueled combined heat and power (CHP) unit. The CHP unit is used to supply electricity to the gas upgrading unit

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO_x	1.0 g/HP-hr	Hourly	EUCHP2	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
2. CO	2.0 g/HP-hr	Hourly	EUCHP2	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
3. VOC	0.7 g/HP-hr[a]	Hourly	EUCHP2	SC V.1	40 CFR 60.4233(e), Table 1 to 40 CFR Part 60 Subpart JJJJ
4. Formaldehyde	0.286 lbs/hr	Hourly	EUCHP2	SC V.2	336.1225(2)[1]
5. Formaldehyde	1.25 tpy	12-month rolling time period as determined at the end of each calendar month.	EUCHP2	SC VI.6	336.1225(2)[1]

[a]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 LIMIT(S)

1. The permittee shall burn only pipeline quality natural gas in EUCHP2. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after the initial startup of EUCHP2, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for EUCHP2. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate EUCHP2 unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
   a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
   b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
   c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
   d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
   e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

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

2. The permittee shall operate and maintain EUCHP2 such that it meets the emission limits over the entire life of the engine. **(40 CFR 60.4234)**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUCHP2:
   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b) May only adjust engine settings according to and consistent with the manufacturer's emission-related written instructions,
   c) Meet the requirements as specified in 40 CFR 1068 Subparts A through D.

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

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for EUCHP2 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The nameplate capacity of EUCHP2 shall not exceed 780 HP as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (3))**

V. TESTING/SAMPLING

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

1. If EUCHP2 is a non-certified engine and control device or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee must demonstrate compliance as follows:
   a) Conduct an initial performance test to demonstrate compliance with the applicable emission standards in 40 CFR 60.4233(e), within 60 days after achieving the maximum production rate at which EUCHP2 will be operated, but no later than 180 days after initial startup.

b) If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.
c) Conduct subsequent performance testing every 8,760 hours of engine operation or every 3 years, whichever comes first.

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

2. Within 180 days after commencement of initial startup of EUCHP2, the permittee shall verify formaldehyde emission rates from EUCHP2 by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed below.

Pollutant	Test Method Reference
Formaldehyde	40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.[1] **(R 336.1225 (2))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep all required records and/or calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (3), R 336.1225, 40 CFR 52.21(c) & (d))**

2. If EUCHP2 is a certified engine, the permittee shall keep, in a satisfactory manner, the following records:
a) Documentation indicating that each engine has been maintained according to manufacturer written instructions, is certified to meet the emission standards, and other information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

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

3. If EUCHP2 is a non-certified engine (or operated in a non-certified manner), the permittee shall keep, in a satisfactory manner, the following records:
a) Testing for each engine, as required in SC V.1.
b) Maintenance activities for each engine, as required by SC III.4.

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

4. The permittee shall keep records of notifications submitted for the completion of construction and start-up of EUCHP2. **(40 CFR 60.4245(a))**

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 for EUCHP2. This information shall include, but shall not be limited to the following:

a) Compliance tests and any testing required under the special conditions of this permit.
b) Monitoring data.
c) Verification of heat input capacity.
d) Identification, type, and amount of fuel combusted on a calendar month basis.
e) All calculations necessary to show compliance with the limits contained in this permit.
f) All records related to, or as required by, the MAP.

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

6. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling formaldehyde mass emissions for EUCHP2, as required by SC I.5. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed according to a method approved by the District Supervisor. **(R 336.1205(1)(a) & (3), 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. If EUCHP2 has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
   a) The date construction of the engine commenced.
   b) Name and address of the owner or operator.
   c) The address of the affected source.
   d) The engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement.
   e) The emission control equipment.
   f) Fuel used in the engine.

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

2. The permittee shall submit a notification specifying whether EUCHP2 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(R 336.1201(3))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE01	16	29	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable provisions of the New Source Performance Standards as specified in 40 CFR Part 60, Subpart A and Subpart JJJJ, as they apply to EUCHP2. **(40 CFR Part 60 Subparts A & JJJJ)**

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63 Subpart A and Subpart ZZZZ, as they apply to EUCHP2. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6595)**

APPENDIX A
Nuisance Minimization Plan: Odors

I. Introduction

Purpose, description of each potential source of odors, permit number, background information, etc.

II. Potential Sources of Odorous Emissions and Related Equipment

Listing of equipment at source that could generate potential odors. Identify process and/or equipment, control equipment (if applicable), and any other information necessary to aid in addressing a complaint if received.

III. Maintenance Schedule

Description of maintenance schedule for equipment, procedures, etc.

IV. Best Management Practices/Housekeeping Measures

Identify best management practices and housekeeping measures the source will use to aid in the minimization of odorous emissions. Explain how odors will be minimized during all startups, shutdowns, and malfunctions. The plan shall incorporate procedures recommended by the equipment manufacturer(s), as well as incorporating standard industry practices.

V. Odor Incident Notification/Investigation/Response

Describe procedures that shall be taken to address odor complaints. Identify the individual(s) at the facility who will be responsible for initiating the response procedures upon the receipt of an odor complaint notification from the AQD, a neighbor, or other source. The response should include taking records that include the date and time of the complaint, meteorological data for the timeframe specified in the complaint, identification of the equipment/process that is most likely to be the source of the complaint, steps taken to identify any maintenance or corrective action necessary for the equipment involved, and other measures utilized by the permittee to address the complaint.

APPENDIX B
Procedures for Calculating Emissions (EUFLARE)

The permittee shall demonstrate compliance with the emission limits in this permit by monitoring digester biogas flow rates and digester biogas H_2S concentration.

Calculation for Monthly SO_2 Emissions using digester biogas H_2S Monitoring:

The following calculation for SO_2 emissions shall utilize the hourly H_2S concentration measurements and continuous flow rate measurements.

$$SO_2\ Monthly\ \left(\frac{ton\ SO_2}{month}\right) = \left(\sum A\ ppm * B\frac{MMscf\ Biogas}{hours}\right) * \frac{24hours}{day} * \frac{days}{month} * \frac{64.06\ lb\ SO2}{lb-mol} * \frac{lb-mol}{385.3\ scf} * \frac{ton}{2{,}000\ lb}$$

Where:
A = ppm sulfur content, as H_2S
B = flow rate digester biogas burned in EUFLARE

Alternative SO_2 emissions calculation methodology may be used upon approval of the AQD District Supervisor.