

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

January 25, 2021

PERMIT TO INSTALL
378-08B

ISSUED TO
Generate Fremont Digester, LLC

LOCATED AT
1634 Locust Street
Fremont, Michigan 49412

IN THE COUNTY OF
Newaygo

STATE REGISTRATION NUMBER
N8210

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: October 20, 2020	
DATE PERMIT TO INSTALL APPROVED: January 25, 2021	SIGNATURE: 
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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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 ₂ e	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 ₂ S	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
EUWASTETRANS	Waste transfer station with biofilter control. This transfer station is comprised of a building for receiving the trucks which pump or dump the waste feedstock into the digester receiving system. The building is operated under negative pressure during truck unloading operations and the evacuated air is to be routed through a biofilter.	NA
EUBOILER	A dual-fuel boiler with a maximum design heat input capacity of 11 MMBTU/hr, that can be fired on biogas or natural gas.	FGBIOGAS
EUDIGESTER	Anaerobic digester system capable of converting organic waste products into biogas. Methane is the main component of this biogas. The produced biogas is processed in a biological scrubber desulfurization unit to remove H ₂ S.	FGBIOGAS
EUFLARE	Biogas-burning flare with a maximum capacity of 1,250 cfm.	FGBIOGAS
EUCENGINE1	GE-Jenbacher Model JGS 420 GS-B82 spark ignition reciprocating internal combustion engine (RICE) rated at 1,966 brake horsepower (bhp) and manufactured after 7/1/2010. The RICE combusts biogas to drive an associated generator set to produce electricity (approximately 1.5 MW gross electrical output).	FGBIOGAS, FGICENGINES, FGRICENSPS
EUCENGINE2	GE-Jenbacher Model JGS 420 GS-B82 spark ignition RICE rated at 1,966 bhp and manufactured after 7/1/2010. The RICE combusts biogas to drive an associated generator set to produce electricity. (approximately 1.5 MW gross electrical output).	FGBIOGAS, FGICENGINES, FGRICENSPS

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.

EUWASTETRANS EMISSION UNIT CONDITIONS

DESCRIPTION

Waste transfer station with biofilter control. This transfer station is comprised of a building for receiving the trucks which pump or dump the waste feedstock into the digester receiving system. The building is operated under negative pressure during truck unloading operations and the evacuated air is to be routed through a biofilter.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Biofilter

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain an updated preventative maintenance / malfunction abatement plan (PM/MAP) as described in Rule 911(2) and Appendix A, for the EUWASTETRANS biofilter. 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 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 336.1225, R 336.1910, R 336.1911)**
2. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain a nuisance minimization plan for odors as described in Appendix B, for the EUWASTETRANS biofilter. 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. **(R 336.1901)**
3. The permittee shall not operate EUWASTETRANS unless all transfer operations, including transport deliveries, are performed by a reliable person properly trained and made responsible for proper compliance with all applicable procedures. **(R 336.1225, R 336.1910, R 336.1911)**
4. Whenever possible, the permittee shall keep the doors on the EUWASTETRANS building closed while actively unloading feedstocks from any truck. **(R 336.1910, R 336.1901)**
5. The permittee shall maintain the temperature and humidity on the biofilter within the acceptable operating ranges, as specified in the PM/MAP. If the temperature or humidity falls outside of the acceptable operating

range specified in the PM/MAP, the permittee shall start corrective actions to return the pressure and/or oxygen back to the acceptable operating range. **(R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUWASTETRANS unless the biofilter is installed, maintained, and operated in a satisfactory manner. **(R 336.1225, R 336.1901, R 336.1910)**
2. The permittee shall install, maintain, and operate devices to monitor the temperature and humidity of the biofilter, and an alarm that notifies operators when the temperature or humidity levels fall outside of the acceptable ranges listed in the PM/MAP. These devices shall be maintained and operated in a satisfactory manner in accordance with the PM/MAP. **(R 336.1205, R 336.1225, R 336.1910, 40 CFR 52.21(c) and (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 a record of all maintenance activities conducted and all repairs made to EUWASTETRANS. Maintenance records shall be consistent with the PM/MAP required by SC III.1 and Appendix A. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1910, R 336.1911)**
2. The permittee shall check the biofilter temperature/humidity alarm no less frequently than one time per day, on each day that the facility is staffed. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910, 40 CFR 52.21(c) and (d))**
3. The permittee shall monitor and record, in a satisfactory manner, the temperature and humidity of the biofilter on a monthly basis. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910, 40 CFR 52.21(c) and (d))**
4. The permittee shall keep records, in a satisfactory manner, of the times the alarm required in SC IV.2 was set off, and a description of the corrective actions taken. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
5. The permittee shall maintain a record of all odor complaints and corrective actions taken to minimize odors, according to the nuisance minimization plan for odors required by SC III.2 and Appendix B. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1901)**
6. The permittee shall keep records, in a satisfactory manner, of the times that the doors of EUWASTETRANS were left open during unloading and the reasons why. **(R 336.1901, R 336.1910, R 336.1911)**

VII. REPORTING

1. The permittee shall submit monthly records of the times that the alarm required in SC IV.2 was set off, and a description the corrective actions taken. Records shall be submitted to the AQD District Supervisor in an acceptable format by the last day of the calendar month, for the previous calendar month. After submittal of at least 12 consecutive monthly reports, the permittee may submit a request for an alternative reporting schedule to the AQD District Supervisor. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

EUBOILER EMISSION UNIT CONDITIONS

DESCRIPTION

A dual-fuel boiler with a maximum design heat input capacity of 11 MMBTU/hr that can be fired on biogas or natural gas.

Flexible Group ID: FGBIOGAS

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMITS

1. The permittee shall burn only biogas or pipeline quality 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) and (d), 40 CFR 63.11195(e))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain a preventative maintenance/malfunction abatement plan (PM/MAP) as described in Rule 911(2) and Appendix A, for EUBOILER. 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 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 336.1205, R 336.1224, R 336.1225, R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The maximum design heat input capacity for EUBOILER shall not exceed 11.0 MMBTU/hr on a fuel heat input basis. **(R 336.1205, 40 CFR Part 60 Subpart Dc)**

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. **(R 336.1205, 40 CFR 52.21(c) and (d))**

2. The permittee shall maintain the following records for EUBOILER:
 - a) Monitoring data
 - b) Verification of heat input capacity required to show compliance with SC IV.1;
 - c) Identification, type, and the amounts of each fuel combusted in EUBOILER on a calendar month basis.
 - d) All records required by 40 CFR 60.7, 60.48c.
 - e) All maintenance activities conducted, and all repairs made to EUBOILER. Maintenance records shall be consistent with the PM/MAP required by SC III.1 and Appendix A.The permittee shall keep records on file at the facility, consistent with the requirements of 40 CFR 60.7(f), and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1912, 40 CFR 60.7(f), 40 CFR 60.48c(g))**

VII. REPORTING

1. The permittee shall provide written notification of the date construction commenced and actual startup of EUBOILER, 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 annual capacity factor for EUBOILER. The permittee shall submit this notification to the AQD District Supervisor as specified in 40 CFR 60.7. **(40 CFR 60.7, 40 CFR 60.48c)**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

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

FLEXIBLE GROUP SPECIAL CONDITIONS

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
FGBIOGAS	Emission units involved in producing or burning biogas. The biogas from the digester is processed in a desulfurization unit to remove H ₂ S.	EUDIGESTER, EUBOILER, EUFLARE, EUIENGINE1, EUIENGINE2
FGICENGINES	Two (2) spark ignition RICE, each rated at 1,966 bhp and manufactured after 7/1/2010. Each RICE combusts biogas to drive an associated generator set to produce electricity (approximately 1.5 MW gross electrical output each).	EUIENGINE1, EUIENGINE2
FGRICENSPS	Non-emergency engines greater than 500 hp, fueled with digester gas (referred to as <i>biogas</i> in this permit). Engines ordered after June 12, 2006 and manufactured on or after July 1, 2007. Engines are subject to requirements under 40 CFR 60 Subpart JJJJ.	EUIENGINE1, EUIENGINE2

**FGBIOGAS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Emission units involved in producing or burning biogas.

Emission Unit: EUDIGESTER, EUBOILER, EUFLARE, EUCENGINE1, EUCENGINE2

POLLUTION CONTROL EQUIPMENT

The biogas from the digester is processed in a desulfurization unit to remove H₂S.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Biogas burned	301,000 MMBtu per year	12-month rolling time period as determined at the end of each calendar month	FGBIOGAS	SC VI.6	R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d)

2. The H₂S concentration of the biogas combusted in any emission unit of FGBIOGAS shall not exceed 1,730 ppmv. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain a preventative maintenance/malfunction abatement plan (PM/MAP) as described in Rule 911(2) and Appendix A, for EUDIGESTER, the desulfurization unit, and the flare (EUFLARE). 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 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 336.1205, R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

2. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain a nuisance minimization plan for odors as described in Appendix B, for FGBIOGAS. 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. **(R 336.1901)**

3. The permittee shall operate the desulfurization unit at all times in order to minimize the H₂S content of the biogas. In the event of a malfunction, the permittee shall implement corrective action as soon as possible in accordance with procedures outlined in the PM/MAP to minimize the downtime of the desulfurization unit and minimize potential emissions of H₂S and SO₂. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
4. The permittee shall maintain the pressure and oxygen levels on the desulfurization unit within the acceptable operating ranges, as specified in the PM/MAP. If the pressure or oxygen level falls outside of the acceptable operating range specified in the PM/MAP, the permittee shall start corrective actions to return the pressure and/or oxygen back to the acceptable operating range. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
5. The permittee shall not allow biogas to be emitted to the atmosphere without burning in EUBOILER, EUFLARE, EUCENGINE1, or EUCENGINE2. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. No later than 90 days after permit issuance, the permittee shall install devices to monitor pressure and oxygen levels of the desulfurization unit on a continuous basis. For the purposes of this condition, continuous means a reading no less frequently than every 15 minutes. These devices shall be maintained and operated in a satisfactory manner in accordance with the PM/MAP. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
2. No later than 90 days after permit issuance, the permittee shall install an alarm system which will notify operators when the pressure or oxygen levels of the desulfurization unit fall outside of the acceptable ranges listed in the PM/MAP. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
3. The permittee shall install a device to monitor the gas flow rate to EUFLARE, and a device to monitor the gas flow rate to EUBOILER, EUCENGINE1, and EUCENGINE2. These devices shall be maintained and operated in a satisfactory manner in accordance with the PM/MAP. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

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

1. The permittee shall verify the hydrogen sulfide (H₂S) of the biogas burned in FGBIOGAS no less than three times per week on non-consecutive days by gas sampling, in a manner acceptable to the District Supervisor.
 - a) After completion of at least 6 consecutive months of H₂S sampling 3 times per week, the permittee may request an alternative monitoring schedule. Any request for an alternative monitoring schedule shall be submitted to the AQD District Supervisor for approval. The requested monitoring frequency shall be no less than weekly. If an alternative monitoring schedule is approved, the AQD District Supervisor may subsequently rescind the approval for any reason, at which time the permittee shall return to taking readings 3 times per week.
 - b) If at any time the desulfurization unit is bypassed or the H₂S concentration of the biogas sample exceeds 1,400 ppmv, the permittee shall sample and record the H₂S concentration of the biogas no less frequently than one time per day, on each day that the facility is staffed, and shall review all operating and maintenance activities for FGBIOGAS and keep records of any corrective actions taken. Once the desulfurization unit is online and the H₂S concentration of the biogas (determined from 7 consecutive daily samples) is maintained below 1,400 ppmv, the permittee may resume the regular monitoring and recordkeeping schedule (either 3 times per week or an alternative monitoring schedule as approved by the AQD District Supervisor).
 - c) No later than 30 days after permit issuance, 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 the first gas sampling. Thereafter, the permittee shall submit a test plan upon the request of the AQD District Supervisor or if any changes are made to the approved testing protocol.

The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21 (c) and (d))**

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 and records in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
2. The permittee shall monitor on a continuous basis and record no less frequently than one time per day, on each day that the facility is staffed, the pressure and oxygen levels on the biological scrubber desulfurization unit. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
3. The permittee shall keep records, in a satisfactory manner, of the times the alarm required in SC IV.2 was set off, and a description of the corrective actions taken. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
4. The permittee shall maintain a record of all maintenance activities conducted and all repairs made to process devices in FGBIOGAS. Maintenance records shall be consistent with the PM/MAP required by SC III.1 and Appendix A. **(R 336.1225, R 336.1910, R 336.1911)**
5. The permittee shall maintain a record of all odor complaints and a description of the actions taken to minimize odors, according to the nuisance minimization plan for odors required by SC III.2 and Appendix B. **(R 336.1901)**
6. The permittee shall continuously monitor, in a satisfactory manner, the biogas flow rate to the flare, and make the data available to the AQD upon request. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d), R 336.1901)**
7. The permittee shall monitor and record, in a satisfactory manner, the total amount of biogas burned in FGBIOGAS on a heat-input basis (MMBTU), for each month and 12-month rolling time period. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d))**
8. The permittee shall keep records, in a satisfactory manner, of feedstocks received on a daily basis and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d))**
9. The permittee shall keep records, in a satisfactory manner, of the results of all H₂S sampling performed. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d))**
10. The permittee shall calculate and keep records of emissions of NO_x, CO, and SO₂, on a monthly and 12-month rolling time period basis, for FGBIOGAS. **(R 336.1205, 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. The permittee shall notify the AQD District Supervisor, in writing, if the desulfurization unit is bypassed. The notice shall include the duration of the bypass (start time and date and end time and date), an explanation of why the desulfurization unit was bypassed, and results of H₂S sampling performed while the desulfurization unit was bypassed. The permittee shall submit the notification no less than 10 days after the start of the bypass. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21 (c) and (d))**
2. The permittee shall submit monthly records of the following:
 - a) The times the alarm required in SC IV.2 was set off, and a description the corrective actions taken.
 - b) The results of all H₂S sampling performed.
 - c) Odor complaints received and actions taken as a result of the complaint, including the information specified in Appendix B, Item V.

Records shall be submitted to the AQD District Supervisor in an acceptable format by the last day of the calendar month, for the previous calendar month. After submittal of at least 12 consecutive monthly reports, the permittee may submit a request for an alternative reporting schedule to the AQD District Supervisor. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

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. SVGASFLARE	NA	27.3 ^a	R 336.1225, 40 CFR 52.21(c) and (d)
^a This height includes the wind guards on the flare.			

IX. OTHER REQUIREMENT(S)

NA

**FGICENGINES
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) spark ignition RICE, each rated at 1,966 bhp and manufactured after 7/1/2010. Each RICE combusts biogas to drive an associated generator set to produce electricity (approximately 1.5 MW gross electrical output each).

Emission Unit: EUCENGINE1, EUCENGINE2

POLLUTION CONTROL EQUIPMENT

Air-to-fuel ratio controller

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	6.93 pph	Hourly	Each engine in FGICENGINES	SC V.1, SC VI.4	R 336.1205, 40 CFR 52.21(c) and (d)
2. CO	11.27 pph	Hourly	Each engine in FGICENGINES	SC V.1, SC VI.4	R 336.1205, 40 CFR 52.21(d)
3. SO ₂	6.11 pph	Hourly	Each engine in FGICENGINES	SC V.2, SC VI.4	R 336.1205, 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Biogas burned	230,000 MMBtu per year	12-month rolling time period as determined at the end of each calendar month	FGICENGINES	SC VI.2, SC VI.4	R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d)

2. The permittee shall burn only biogas or natural gas in FGICENGINES. The permittee shall not burn gas with a hydrogen sulfide content greater than 1,730 ppm. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 90 days after permit issuance, the permittee shall submit, implement, and maintain an updated preventative maintenance/malfunction abatement plan (PM/MAP) as described in Rule 911(2) and Appendix A, for FGICENGINES. 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 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 336.1225, R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate each engine of FGICENGINES unless an air-to-fuel ratio controller is installed, maintained, and operated in a satisfactory manner. **(R 336.1702, R 336.1910)**
2. The design capacity of each engine of FGICENGINES shall not exceed 1,966 bhp, as specified by the equipment manufacturer. **(R 336.1205(1)(a), R 336.1225, R 336.1702, 40 CFR 52.21(c) and (d))**
3. The permittee shall equip and maintain FGICENGINES with a device to continuously monitor and record the fuel usage. **(R 336.1205, R 336.1225, R 336.1702)**

V. TESTING/SAMPLING

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

1. The permittee shall verify NO_x and CO emission rates from each engine in FGICENGINES by testing at the owner's expense, in accordance with Department requirements. The testing frequency shall coincide with the testing required under 40 CFR Part 60 Subpart A and JJJJ (FGRICENSPS, SC V.1). Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.
2. Within 180 days after issuance of the permit, the permittee shall verify SO₂ emission rates from each engine in FGICENGINES, by testing at owner's expense, in accordance with Department requirements. Upon request of the AQD District Supervisor, the permittee shall verify SO₂ emission rates through subsequent repeat emissions testing. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 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. 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 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

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 and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d), 40 CFR Part 60 Subpart JJJJ)**
2. The permittee shall continuously monitor, in a satisfactory manner, the gas usage for FGICENGINES, and the BTU content of the gas. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d), 40 CFR Part 60 Subpart JJJJ)**
3. The permittee shall maintain a record of all maintenance activities conducted and all repairs made to FGICENGINES. Maintenance records shall be consistent with the PM/MAP required by SC III.1 and Appendix A. **(R 336.1225, R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**
4. The permittee shall maintain records of all information necessary for all notifications and reports for EUCENGINE1 and EUCENGINE2, 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: **(R 336.1205, R 336.1225, R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

- a) Compliance tests and any testing required under the special conditions of this permit.
- b) Monitoring data for the hours of operation, volumetric flow rate and biogas usage for FGENGINES.
- c) Hours of operation on a monthly and 12-month rolling basis.
- d) Calculated amount of biogas combusted in FGENGINES on a monthly and 12-month rolling basis.
- e) Calculated total BTUs of the biogas combusted in FGENGINES on a monthly and 12-month rolling basis.
- f) Records of the H₂S content of the biogas.
- g) Manufacturer's data, specifications, and operating and maintenance procedures.
- h) Maintenance activities conducted according to the PM/MAP.
- i) All calculations necessary to show compliance with the limits contained in this permit.

VII. REPORTING

NA

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. SVICENGINE1	19.6	45	R 336.1225, 40 CFR 52.21(c) and (d)
2. SVICENGINE2	19.6	45	R 336.1225, 40 CFR 52.21(c) and (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 FGICENGINES. **(40 CFR Part 60 Subpart A and JJJJ)**
- 2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to FGICENGINES. **(40 CFR, Part 63, Subparts A and ZZZZ)**

**FGRICENSPS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Non-emergency engines greater than 500 hp, fueled with digester gas (referred to as *biogas* in this permit). Engines ordered after June 12, 2006 and manufactured on or after July 1, 2007. Engines are subject to requirements under 40 CFR 60 Subpart JJJJ.

Emission Unit: EUCENGINE1, EUCENGINE2

POLLUTION CONTROL EQUIPMENT

Air-to-fuel ratio controller

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	2.0 g/bhp-hr OR 150 ppmvd at 15% O ₂	Hourly	Each engine in FGRICENSPS	SC V.1	40 CFR 60.4233(e) Table 1 to Subpart JJJJ of Part 60
2. CO	5.0 g/bhp-hr OR 610 ppmvd at 15% O ₂	Hourly	Each engine in FGRICENSPS	SC V.1	40 CFR 60.4233(e) Table 1 to Subpart JJJJ of Part 60
3. VOC ^A	1.0 g/bhp-hr OR 80 ppmvd at 15% O ₂	Hourly	Each engine in FGRICENSPS	SC V.1	40 CFR 60.4233(e) Table 1 to Subpart JJJJ of Part 60

^A For purposes of Part 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGRICENSPS such that it meets the emission limits established, over the entire life of the engine. **(40 CFR 60.4234, 40 CFR 60.4243(b))**
2. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine in FGRICENSPS 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICENSPS with non-resettable hours meters to track the operating hours. **(40 CFR 60.4243)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct an initial performance test shall, except as provided in 40 CFR 60.4243(b), for each engine in FGRICENSPS within one year after startup of the engine and every 8760 hours of operation (as determined through the use of a non-resettable hour meter), or three years, whichever occurs first, to demonstrate compliance with the emission limits in 40 CFR 60.4233(e). If a performance test is required, the performance test shall be conducted according to 40 CFR 60.4244. No less than 30 days prior to any 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. 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)**

VI. MONITORING/RECORDKEEPING

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 a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan and records of conducted maintenance for each engine in FGRICENSPS 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))**

VII. REPORTING

1. The permittee shall submit an initial notification as required by 40 CFR 60.7(a)(1) for each engine in FGRICENSPS if the engine(s) installed is/are not certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231. The notification shall include the information below, as specified in 40 CFR 60.4245 (c)(1) through (5):
 - a) Name and address of the owner or operator. **(40 CFR 60.4245(c)(1))**
 - b) The address of the affected source. **(40 CFR 60.4245(c)(2))**
 - c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement. **(40 CFR 60.4245(c)(3))**
 - d) Emission control equipment. **(40 CFR 60.4245(c)(4))**
 - e) Fuel used. **(40 CFR 60.4245(c)(5))**The permittee shall submit the initial notification to the AQD District Supervisor in an acceptable format. **(40 CFR Part 60 Subpart JJJJ)**

VIII. STACK/VENT RESTRICTION(S)

NA

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 each engine in FGRICENSPS. **(40 CFR Part 60 Subparts A and JJJJ)**

FGFACILITY CONDITIONS

DESCRIPTION: The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	60.7 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.2	R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)
2. CO	98.7 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.2	R 336.1205(1)(a) and (b), 40 CFR 52.21(d)
3. SO ₂	52.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.2	R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)

II. MATERIAL LIMIT(S)

NA

Note: Material limits restricting the potential to emit of the stationary source are found under FG BIOGAS and FG ICENGINES.

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

Note: Conditions specifying required Design/Equipment Parameters restricting the potential to emit of the stationary source are found under EU BOILER, FG BIOGAS and FG ICENGINES.

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 and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. The permittee shall keep records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**
2. The permittee shall monitor and record, in a satisfactory manner, emissions of NO_x, CO, and SO₂ from FGFACILITY, on a monthly and 12-month rolling basis. **(R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**

VII. REPORTING

1. The permittee shall submit records of the monthly and 12-month rolling emission calculations required in SC VI.2. Records shall be submitted to the AQD District Supervisor in an acceptable format by the last day of the calendar month, for the previous calendar month. After submittal of at least 12 consecutive monthly reports, the permittee may submit a request for an alternative reporting schedule to the AQD District Supervisor. **(R 336.1205, R 336.1225, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) and (d))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

APPENDIX A
Preventative Maintenance/Malfunction Abatement Plan (PM/MAP)

A PM/MAP that is required for any emission unit, flexible group, or control device shall, at a minimum, specify the following:

- a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices; a description of the items or conditions that shall be inspected; the frequency of the inspections or repairs; and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
- b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

APPENDIX B

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.