

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

February 28, 2022

PERMIT TO INSTALL
91-20A

ISSUED TO
Eagle Valley Landfill

LOCATED AT
600 West Silver Bell Road
Orion Township, Michigan 48359

IN THE COUNTY OF
Oakland

STATE REGISTRATION NUMBER
N3845

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, 2021	
DATE PERMIT TO INSTALL APPROVED: February 28, 2022	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))	Installation Date / Modification Date	Flexible Group ID
EUICENGINE1	This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a spark ignition, lean burn, reciprocating internal combustion engine (Caterpillar G3520C, 2,233 bhp at 100% load) for combusting treated landfill gas to produce electricity (1.6 megawatt gross electrical output). The engine will drive an associated generator set to produce electricity.	02/15/2011	FGICENGINES, FGRICEMACT
EUICENGINE2	This emission unit, and any replacement of this unit as applicable under R 336.1285(2)(a)(vi), is for a spark ignition, lean burn, reciprocating internal combustion engine (Caterpillar G3520C, 2,233 bhp at 100% load) for combusting treated landfill gas to produce electricity (1.6 megawatt gross electrical output). The engine will drive an associated generator set to produce electricity.	02/15/2011	FGICENGINES, FGRICEMACT
EUENCLOSEDFLARE3	An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.	10/16/2016	FGENCLOSEDFLARE3
EUENCLOSEDFLARE4	An enclosed flare is considered an enclosed combustor which is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air.	10/16/2016	FGENCLOSEDFLARE4

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.

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
FGICENGINES	Reciprocating internal combustion engine(s) fueled with treated landfill/digester gas and used to produce electricity.	EUICENGINE1, EUICENGINE2
FGRICEMACT	New and reconstructed non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.	EUICENGINE1, EUICENGINE2
FGENCLOSEDFLARE S	An enclosed flare is an enclosed combustor which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. The enclosed flares serve as supplemental and back-up control equipment in the event of treatment system outage, or when gas generation exceeds end user demand. This flexible group contains 40 CFR Part 60, Subpart XXX requirements.	EUENCLOSEDFLARE3, EUENCLOSEDFLARE4
FGENCLOSEDFLARE -AAAA	An enclosed flare (enclosed combustor) is an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.	EUENCLOSEDFLARE3, EUENCLOSEDFLARE4

**FGICENGINES
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) Spark ignition, lean burn, reciprocating internal combustion engines (Caterpillar G3520C, 2,233 bhp at 100% load) for combusting treated landfill gas to produce electricity (1.6 megawatt gross electrical output). The engines will drive an associated generator set to produce electricity.

Emission Unit: EUCENGINE1, EUCENGINE2

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. CO	5.0 g/bhp-hr or 610 ppmvd at 15% O ₂	Hourly	Each Engine in FGICENGINES	SC V.1, SC VI.5, SC VI.6	40 CFR 60.4233(e) Table 1 to Subpart JJJJ of Part 60
2. CO	4.13 g/bhp-hr	Hourly	Each Engine in FGICENGINES	SC V.2, SC VI.5, SC VI.6	40 CFR 52.21 (d)
3. NO _x	2.0 g/hp-hr or 150 ppmvd at 15% O ₂	Hourly	Each Engine in FGICENGINES	SC V.1, SC VI.5, SC VI.6	40 CFR 60.4233(e) Table 1 to Subpart JJJJ of Part 60
4. NO _x	0.9 g/bhp-hr	Hourly	Each Engine in FGICENGINES	SC V.2, SC VI.5, SC VI.6	40 CFR 52.21 (c) & (d)
5. VOC*	1.0 g/bhp-hr or 80 ppmvd at 15% O ₂	Hourly	Each Engine in FGICENGINES	SC V.1, SC V.2, SC VI.5, SC VI.6	R 336.1702(b), 40 CFR Part 60, Subpart JJJJ
6. SO ₂	2.92 pph	Hourly	Each Engine in FGICENGINES	SC V.2, SC V.3, SC VI.5, SC VI.6	40 CFR 52.21 (c) & (d)
7. SO ₂	25.6 tpy	12-month rolling time period as determined at end of each calendar month	FGICENGINES	SC V.3, SC VI.3, SC VI.4, SC VI.5, SC VI.6	R 336.1205(3)
8. Formaldehyde	2.07 pph	Hourly	Each Engine in FGICENGINES	SC V.4, SC VI.5, SC VI.6	R 336.1225(2)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. 1. The permittee shall only burn landfill gas in FGICENGINES that has been treated. **(R 336.1225, 40 CFR 63.6590(c))**
2. The permittee shall not operate any engine in FGICENGINES unless the malfunction abatement/preventative maintenance plan, 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 malfunction abatement/preventative maintenance plan to be inadequate, the AQD District Supervisor may request modification of the plan to address those inadequacies. **(R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

3. Based on the engine's kilowatt output, the permittee shall adjust the engine's air/fuel ratio, as needed, to ensure that the engines in FGICENGINES operate at their maximum design output based on the fuel available to burn. **(R 336.1702, R 336.1910, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate any engine in FGICENGINES unless the engines air/fuel ratio controller is installed, maintained and operated in a satisfactory manner. **(R 336.1702, R 336.1910)**
2. The permittee shall equip each engine in FGICENGINES with devices to monitor and record the monthly hours of operation. **(40 CFR Part 60 Subpart JJJJ)**
3. The design capacity of each engine of FGICENGINES shall not exceed 2,233 hp, as specified by the equipment manufacturer. **(R 336.1205(1)(a), R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. The permittee shall conduct an initial performance test, except as provided in 40 CFR 60.4243(b), for each engine in FGICENGINES 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) and the hourly emission rates shall be determined by the average of acceptable test runs. If a performance test is required, the performance tests 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)**

2. Within five years from the last test date and then every five years thereafter, the permittee shall verify NO_x, CO, VOC, and SO₂ emission rates from each engine in FGICENGINES, by testing at owner's expense, in accordance with Department requirements. The hourly emission rates shall be determined by the average of the acceptable test runs per the applicable test method requirements. Testing shall be performed using an approved EPA Method listed in the table below:

Pollutant	Test Method Reference
NO _x	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOC	40 CFR Part 60, Appendix A
SO ₂	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 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

3. The permittee shall verify the hydrogen sulfide (H₂S) or total reduced sulfur (TRS) content of the landfill gas burned in FGICENGINES, monthly by gas sampling (e.g. Draeger Tubes, Tedlar Sampling Bags, etc.) and semi-annually by gas sampling using an EPA approved method and laboratory analysis, at the owner's expense, in accordance with Department requirements. If at any time, the H₂S (TRS equivalent) concentration of the landfill gas sample exceeds 500 ppmv, the permittee shall sample and record the H₂S (TRS equivalent) concentration of the landfill gas weekly and shall review all operating and maintenance activities for the landfill gas collection and treatment system along with keeping records of corrective actions taken. Once the H₂S (TRS equivalent) concentration of the landfill gas (determined from 4 weekly) is maintained below 500 ppmv for one month after an exceedance, the permittee may resume monthly monitoring and recordkeeping. No less than 30 days prior to the initial test for each type of gas sampling, 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 test for each type of 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(3), R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21 (c) & (d))**
4. Within 5 years from the last test date, and then every five years thereafter, the permittee shall verify formaldehyde emission rates from each engine in FGICENGINES, by testing at owner's expense, in accordance with Department requirements. The hourly emission rates shall be determined by the average of the acceptable test runs per the applicable test method requirements. Testing shall be performed using an approved EPA Method listed in the table below:

Pollutant	Test Method Reference
Formaldehyde	40 CFR Part 60, Appendix A; or Method 320 of Appendix A of 40 CFR Part 63

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 336.1225, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(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. **(R 336.1205, 40 CFR 52.21(c) & (d))**
2. The permittee shall maintain a log of all maintenance activities conducted according to the malfunction abatement/preventative maintenance plan (pursuant to SC III.2) for each engine in FGICENGINES and shall to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee shall keep this log on file at the facility for a period of at least five years and make it available to the Department upon request. **(R 336.1702, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.4243(b))**
3. The permittee shall calculate and record the monthly and 12-month rolling SO₂ emission rates from FGICENGINES using the equation in Appendix A. The calculations shall utilize, at a minimum, monthly gas sampling data collected SC V.3, the monthly gas usage, monthly hours of operation, and the ratio of total sulfur to sulfur as H₂S from the most recent laboratory test. All records shall be kept on file at the facility and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21 (c) & (d))**
4. The permittee shall continuously monitor, in a satisfactory manner, the hours of operation for each engine in FG-ICENGINES. **(R 336.1205(1)(a) & (3))**
5. The permittee shall maintain the following record for FGICENGINES. The following information shall be recorded and kept on file at the facility:
 - a) Engine manufacturer.
 - b) Date engine was manufactured.
 - c) Engine model number.
 - d) Engine horsepower.
 - e) Engine serial number.
 - f) Engine specification sheet.
 - g) Date of initial startup of the engine.
 - h) Date engine was removed from service at this stationary source.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1205, R 336.1225, R 336.1702, R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

6. The permittee shall maintain records of all information necessary for all notifications and reports for FGICENGINES, as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit.
 - b) Monitoring data for the hours of operation, volumetric flow rate and landfill gas usage.
 - c) Calculated amount of landfill gas combusted in each engine on a monthly and 12-month rolling basis.
 - d) Hours of operation on a monthly and 12-month rolling basis.
 - e) Btu content of the landfill gas burned.
 - f) Manufacturer's data, specifications, and operating and maintenance procedures.
 - g) Maintenance activities conducted according to the PM/MAP.
 - h) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(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))**

VII. REPORTING

1. The permittee shall notify the AQD district office within 10 days of when the frequency of the gas sampling changes for any reason. **(R 336.1201(3))**
2. The permittee shall notify the AQD District Supervisor of an engine change-out and submit a description of the engine and acceptable emissions data to show that the alternate engine is equivalent-emitting or lower-emitting. The data shall be submitted within 30-days of the engine change out. **(R 336.1201)**

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	14	45	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVICENGINE2	14	45	R 336.1225, 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 FGICENGINES. **(40 CFR Part 60 Subpart A and JJJJ)**

Footnotes:

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

FGRICEMACT FLEXIBLE GROUP CONDITIONS

DESCRIPTION

New and reconstructed non-emergency engines greater than 500 hp fueled with landfill/digester gas, located at a major source of HAPs. Construction or reconstruction commenced on or after December 19, 2002.

Emission Unit: EUCENGINE1, EUCENGINE2

POLLUTION CONTROL EQUIPMENT

Air-to-fuel ratio controller on each engine.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Each engine in FGRICEMACT shall operate in a manner which reasonably minimizes HAP emissions. **(40 CFR 63.6625(c))**
2. Each engine in FGRICEMACT shall operate in a manner which minimizes time spent at idle during startup and minimize the startup time to a period needed for appropriate and safe loading of each engine, not to exceed 30 minutes. **(40 CFR 63.6625(h))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The engines in FGRICEMACT shall equip and maintain separate fuel meters to monitor and record the daily fuel usage and volumetric flow rate of each fuel used. **(40 CFR 63.6625(c))**

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 engines in FGRICEMACT, which fire landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, must monitor and record the daily fuel usage with separate fuel meters to measure the volumetric flow rate of each fuel. **(40 CFR 63.6625(c))**

VII. REPORTING

1. The permittee shall submit an annual report in accordance with Table 7 of 40 CFR Part 63, Subpart ZZZZ to the appropriate AQD district office by no later than March 15. **(40 CFR 63.6650(g), 40 CFR 63.6650(b)(5))**
The following information shall be included in this annual report:

- a) The fuel flow rate and the heating values that were used in the permittee's calculations. Also, the permittee must demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the gross heat input on an annual basis. **(40 CFR 63.6650(g)(1))**
- b) The operating limits provided in the permittee's federally enforceable permit, and any deviations from these limits. **(40 CFR 63.6650(g)(2))**
- c) Any problems or errors suspected from the fuel flow rate meters. **(40 CFR 63.6650(g)(3))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

- 1. 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 each engine in FGRICEMACT. **(40 CFR Part 63 Subparts A and ZZZZ)**

Footnotes:

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

**FGENCLOSEDFLARES
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

An enclosed flare is an enclosed combustor which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. The enclosed flares serve as a control system for supplemental and back-up control of landfill gas in the event of a treatment system outage, or when landfill gas generation exceeds end user demand. This flexible group contains 40 CFR Part 60, Subpart XXX requirements.

Emission Unit: EUENCLOSEDFLARE3, EUENCLOSEDFLARE4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMOC	NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppm by volume, dry basis as hexane at 3 percent oxygen	Hourly	Each flare in FGENCLOSEDFLARES	SC V.1, SC VI.1.	40 CFR 60.762(b)(2)(iii)(B)
2. CO	24.3 pph	Hourly	EUENCLOSEDFLARE3	SC V.2	40 CFR 52.21(d), R 336.1205(3)
3. CO	6.1 pph	Hourly	EUENCLOSEDFLARE4	SC V.2	40 CFR 52.21(d), R 336.1205(3)
4. SO2	109 tpy	12-month rolling time period as determined at the end of each calendar month	FGENCLOSEDFLARES	SC V.3, SC VI.5	R 336.1205(3)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-ENCLOSEDFLARE3 or EU-ENCLOSEDFLARE4 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EU-ENCLOSEDFLARE3 and EU ENCLOSEDFLARE4, is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1910, R 336.1911)**
2. The permittee must operate the control system such that all collected gases are vented to a control system designed and operated in accordance 40 CFR 60.762(b)(2)(iii). **(40 CFR 60.762(b)(2)(iii)(B))**
3. The control device must be operated within the parameter ranges established during the initial or most recent performance test. **(40 CFR 60.762(b)(2)(iii)(B)(2))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Within five years from the last test date, and then every five years thereafter, the permittee shall verify the NMOC reduction efficiency or ppmv from EU-ENCLOSEDFLARE3 and EU-ENCLOSEDFLARE4, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA method listed in 40 CFR 60, Appendix A. An alternate method, or a modification to the approved EPA method, may be specified in an AQD approved test protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004)**
2. Within five years from the last test date, and then every five years thereafter, the permittee shall verify CO emission rates from each flare in FGENCLOSEDFLARES, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below:

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

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

3. The permittee shall verify the hydrogen sulfide (H₂S) or total reduced sulfur (TRS) content of the landfill gas burned in FGENCLOSEDFLARES, monthly by gas sampling (e.g. Draeger Tubes, Tedlar Sampling Bags, etc.) and semi-annually by gas sampling using an EPA approved method and laboratory analysis, at the owner's expense, in accordance with Department requirements. If at any time, the H₂S (TRS equivalent) concentration of the landfill gas sample exceeds 500 ppmv, the permittee shall sample and record the H₂S (TRS equivalent) concentration of the landfill gas weekly and shall review all operating and maintenance activities for the landfill gas collection and treatment system along with keeping records of corrective actions taken. Once the H₂S (TRS equivalent) concentration of the landfill gas (determined from 4 weekly) is maintained below 500 ppmv for one month after an exceedance, the permittee may resume monthly monitoring and recordkeeping. No less than 30 days prior to the initial test for each type of gas sampling, 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 test for each type of 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(3), R 336.1225, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21 (c) & (d))**
4. The permittee must verify the Visible Emissions (per USEPA Method 9 certified visible emissions observation must be conducted for a minimum of 15 minutes to determine the actual opacity from the emission point) from EUENCLOSEDFLARE and at a minimum, every five years from the date of the last test, thereafter. **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal. **(40 CFR 60.768(b))**
2. Where the permittee seeks to demonstrate compliance with 40 CFR 60.762(b)(2)(iii) through use of an enclosed combustion device: **(40 CFR 60.768(b)(2))**
 - a. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test. **(40 CFR 60.768(b)(2)(i))**
 - b. The percent reduction of NMOC determined as specified in 40 CFR 60.762(b)(2)(iii)(B) achieved by the control device. **(40 CFR 60.768(b)(2)(ii))**
3. The permittee shall calculate and record the monthly and 12-month rolling SO₂ emission rates from FGENCLOSEDFLARES using the equation in Appendix A. The calculations shall utilize, at a minimum, monthly gas sampling data collected SC V.3, the monthly gas usage, monthly hours of operation, and the ratio of total sulfur to sulfur as H₂S from the most recent laboratory test. All records shall be kept on file at the facility and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21 (c) & (d))**
4. The permittee shall maintain records of all information necessary for all notifications and reports for FGENCLOSEDFLARES, as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
 - a) Compliance tests and any testing required under the special conditions of this permit.
 - b) Monitoring data for the hours of operation, volumetric flow rate and landfill gas usage.
 - c) Calculated amount of landfill gas combusted in each flare on a monthly and 12-month rolling basis.
 - d) Hours of operation on a monthly and 12-month rolling basis.
 - e) Btu content of the landfill gas burned.
 - f) Manufacturer's data, specifications, and operating and maintenance procedures.
 - g) Maintenance activities conducted according to the PM/MAP.
 - h) All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the AQD District Supervisor. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, 40 CFR 52.21(c) & (d))**

5. Each permittee that chooses to comply with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 60.762(b)(2)(iv), must keep records of the date upon which the permittee started complying with the provisions in 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961. **(40 CFR 60.768(e)(6))**

VII. REPORTING

1. If complying with the operational provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961, as allowed at 40 CFR 60.762(b)(2)(iv), the permittee must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 60.767(g). **(40 CFR 60.767(g))**
2. The permittee must submit reports electronically according to the following:
 - a) Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (https://www.epa.gov/ttn/chief/ert/ert_info.html), submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the USEPA's CDX (<https://cdx.epa.gov/>). Performance test data must be submitted in a file format generated through the use of the USEPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. **(40 CFR 60.767(i)(1)(i))**
 - b) For data collected using test methods that are not supported by the USEPA's ERT as listed on the USEPA's ERT website at the time of the test, submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4. **(40 CFR 60.767(i)(1)(ii))**
 - c) Each permittee must submit reports to the USEPA via CEDRI (CEDRI can be accessed through the USEPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www3.epa.gov/ttn/chief/cedri/index.html>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. **(40 CFR 60.767(i)(2))**
3. The permittee must submit any performance test reports and all other reports required by 40 CFR Part 60, Subpart XXX to the appropriate AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.2001(5))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the Federal Standards of Performance for Municipal Solid Waste Landfills That commenced construction, reconstruction, or modification after July 17, 2014, as specified in 40 CFR Part 60, Subpart XXX. The permittee has opted into NESHAP AAAA, therefore the permittee must comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960, and 40 CFR 63.1961. Once the permittee begins to comply with the provisions of 40 CFR 63.1958, 40 CFR 63.1960 and 40 CFR 63.1961, the permittee must continue to operate the collection and control device according to those provisions and cannot return to the provisions of 40 CFR 60.763, 40 CFR 62.60.765 and 40 CFR 60.766. **(40 CFR 60.762(b)(2)(iv), 40 CFR Part 60, Subpart XXX)**

Footnotes:

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

**FGENCLOSEDFLARE-AAAA
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

An enclosed flare is an enclosed combustor which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. This flexible group contains 40 CFR Part 63, Subpart AAAAA requirements.

Emission Unit: EUENCLOSEDFLARE3, EUENCLOSEDFLARE4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMOC	20 ppmv dry as hexane at 3% oxygen -OR- 98% by weight reduction or more	Hourly	Each Enclosed Combustion Device in FGENCLOSEDFLARE-AAAA	SC V.1	40 CFR 63.1959(b)(2)(iii)(B)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate control system, FGENCLOSEDFLARE-AAAA, as designed and operated in accordance 40 CFR 63.1959(b)(2)(iii). **(40 CFR 63.1959(b)(2)(iii)(B))**
2. Each control device must be operated within the parameter ranges established during the most recent performance test in compliance with 40 CFR 63.1959(d). The operating parameters to be monitored are specified in 40 CFR 63.1961(b) through 40 CFR 60.1961(e). **(40 CFR 63.1959(b)(2)(iii)(B)(2))**
3. The permittee must operate each control device at all times when the collected gas is routed to it. **(40 CFR 63.1958(f))**
4. In the event the control system is inoperable, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within one hour. **(40 CFR 63.1958(e)(1)(i))**
5. In the event the control system is inoperable, efforts to repair the control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation. **(40 CFR 63.1958(e)(1)(ii))**

6. At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. Each permittee that chooses to comply with 40 CFR 63.1959(b)(2)(iii) using an enclosed combustor must install, calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:
 - a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. **(40 CFR 63.1961(b)(1))**
 - b. A device that records flow to the control device and bypass of the control device (if applicable). The permittee must install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes. The permittee must secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. **(40 CFR 63.1961(b)(2))**

V. TESTING/SAMPLING

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

1. The permittee must verify the NMOC reduction efficiency or ppmv from each control device in FGENCLOSEDFLARE-AAAA, by testing at owner's expense, in accordance with Department requirements. Testing must be performed using an approved USEPA method listed in 40 CFR Part 63.1959(d). No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD Technical Programs Unit and the appropriate District Office. The AQD must approve the final plan prior to testing, including any modifications to 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 the appropriate District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1959(b)(2)(iii)(B), 40 CFR 63.1959(d))**
2. The permittee must verify the NMOC weight-percent efficiency or ppmv outlet concentration level from each control device in FGENCLOSEDFLARE-AAAA and at a minimum, every five years from the date of the last test, thereafter. **(R 336.2001, R 336.2003, R 336.2004)**
3. The permittee must verify the Visible Emissions (per USEPA Method 9 certified visible emissions observation must be conducted for a minimum of 15 minutes to determine the actual opacity from the emission point) from each control device in FGENCLOSEDFLARE-AAAA and at a minimum, every five years from the date of the last test, thereafter. **(R 336.2001, R 336.2003, R 336.2004)**
4. The permittee must notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. **(R 336.2001)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee must keep up-to-date, readily accessible records for the life of the control equipment of the data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal **(40 CFR 63.1983(b))**
2. Where the permittee seeks to demonstrate compliance with 40 CFR 63.1959(b)(2)(ii) through use of an enclosed combustion device: **(40 CFR 63.1983(b)(2))**
 - i. The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test. **(40 CFR 63.1983(b)(2)(i))**

- ii. The percent reduction of NMOC determined as specified in 40 CFR 63.1959(b)(2)(iii)(B) achieved by the control device. **(40 CFR 63.1983(c)(1)(i))**
3. The permittee must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 63.1961 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. **(40 CFR 63.1983(c))**
 - a) All 3-hour periods of operation during which the average temperature was more than 28°C (82°F) below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 63.1959(b)(2)(iii) was determined. **(40 CFR 63.1983(c)(1)(i))**
 - b) Continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 63.1961(b)(2)(ii), 40 CFR 63.1961(c)(2)(ii), and 40 CFR 63.1961(g)(2). **(40 CFR 63.1961(b)(2))**

VII. REPORTING

1. The permittee must submit to the appropriate AQD District Office semiannual reports for the control system. The reports must be received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. For enclosed combustion devices, reportable exceedances are defined under 40 CFR 63.1961(b). The report must include the following:
 - a. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow. **(40 CFR 63.1981(h)(2))**
 - b. Description and duration of all periods when the control device was not operating and length of time the control device was not operating. **(40 CFR 63.1981(h)(3))**
2. The permittee must submit reports electronically according to the following:
 - a. Within 60 days after the date of completing each performance test required by 40 CFR 63 Subpart AAAA, the permittee must submit the results of the performance test with data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>). Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. **(40 CFR 63.1981(I)(1)(i))**
 - b. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. **(40 CFR 63.1981(I)(1)(ii))**
 - c. Each permittee must submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The semi-annual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the permittee must submit the reports to the USEPA at the appropriate address listed in 40 CFR 63.13. **(40 CFR 63.1981(I)(2))**

3. The permittee shall submit any performance test reports and all other reports required by 40 CFR 63, Subpart AAAA to the AQD District Office, in a format approved by the AQD District Supervisor. **(R 336.2001(5))**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

Footnotes:

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

APPENDIX A Procedures for Calculating Emissions

The permittee shall demonstrate compliance with the emission limits in this permit by vendor data, stack testing, and/or gas testing.

Calculation for Monthly SO₂ Emissions using gas sampling:

The following calculation for SO₂ emissions shall utilize the monthly average of the weekly (or daily, if required) H₂S concentration measurements from gas sample data collected, the monthly gas usage, monthly hours of operation, and the ratio of total sulfur to sulfur as H₂S from the most recent laboratory test. **Note:** The TRS to H₂S ratio must be used in the calculation when a Draeger Tube or other sampling method does not measure the total sulfur in the gas.

SO₂ Emissions (tons per month)

$$= \frac{(X \text{ scf } H_2S)}{MMcf \text{ LFG}} \times \frac{1.1733 \text{ mols } S}{1 \text{ ft}^3 \text{ H}_2S} \times \frac{34.08 \text{ grams } H_2S}{1 \text{ mol } S} \times \frac{1 \text{ lb}}{453.59 \text{ grams}} \times \frac{1 \text{ ton}}{2,000 \text{ lbs}} \times \frac{1.88 \text{ SO}_2 \text{ MW}}{H_2S} \times LFG \times \text{Ratio} \frac{TRS}{H_2S}$$

Where:

X = ppm sulfur content, as H₂S

S = Sulfur

MW = Molecular Weight of SO₂ to H₂S

LFG = Actual Landfill Gas Usage per month (ft³/month)

Ratio TRS to H₂S = Determined from most recent laboratory test