DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION ACTIVITY REPORT: On-site Inspection

P022273752			
FACILITY: C&C Energy LLC		SRN / ID: P0222	
LOCATION: 19401 15 MILE RD, MARSHALL		DISTRICT: Kalamazoo	
CITY: MARSHALL		COUNTY: CALHOUN	
CONTACT: Mike Cleeney , Plant Operator		ACTIVITY DATE: 07/25/2024	
STAFF: Chance Collins COMPLIANCE STATUS: Compliance		SOURCE CLASS: MAJOR	
SUBJECT: Scheduled Inspection for FCE. Stack Test observation			
RESOLVED COMPLAINTS:			

On July 25, 2024, AQD Staff traveled to Calhoun County to perform an inspection of the C&C Energy (formerly Gas Recovery Systems) facility. The purpose of the inspection was to determine the facility's compliance with MI-ROP-P0222-2023 and applicable state and federal air pollution control regulations.

AQD Staff arrived on site at 10:10 a.m. to sunny conditions with a temperature of 71° F, and a NW wind of 12 mph. There were no noticeable odors upon arrival. AQD staff met with Mike Cleeney (Plant Operator) who answered all questions and escorted staff around the site. The following discusses the results of the on-site inspection and review of records:

At the time of inspection, the facility was conducting a stack test on EUTURBINE. During the inspection, EUEngine #2 was operating at 276 scfm and 847 kilowatts. EUTURBINE was also in operation at 1,231 scfm and 2723 kilowatts. The following are readings that were taken during the testing runs:

Run 1 (08:00 a.m.)	Generator Output (kW)	Turbine Fuel Use (scfm)	Fuel CH4 (%)
0 min	2777	1247	55.4
15 min	2777	1250	56.4
30 min	2768	1244	56.4
45 min	2759	1244	55.9
60 min	2759	1241	55.9

Run 2	Generator Output	Turbine Fuel Use	Fuel CH4
(9:20 a.m.)	(kW)	(scfm)	(%)

0 min	2732	1219	56.3
15 min	2714	1231	55.8
30 min	2714	1231	55.7
45 min	2714	1228	55.1
60 min	2723	1231	55.5

Run 3 (10:45	Generator Output (kW)	Turbine Fuel Use (scfm)	Fuel CH4 (%)
0 min	2705	1219	56.3
15 min	2705	1219	55.6
30 min	2696	1222	55.8
45 min	2688	1219	55.4
60 min	2679	1219	55.5

*Note: All requirements that are NA will not be addressed.

EUTURBINE

DESCRIPTION: Solar Centaur model T-4500 gas turbine. Gas turbine as defined in 40 CFR, 60.331, that has an enclosed fire box that maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. Landfill gas is the fuel. The electrical capacity of this turbine is 3,500 kW.

Emission Limit:

Pollutant	Limit	Time Period/Operating Scenario	Equipment

Total VOC	2.5 TPY Actual: 0.04 TPY	12-month rolling time period as determined at the end of each calendar month	EUTURBINE
CO	89 TPY Actual: 14.38 TPY	12-month rolling time period as determined at the end of each calendar month	EUTURBINE
NOx	26 TPY Actual: 19.84 TPY	12-month rolling time period as determined at the end of each calendar month	EUTURBINE
NOx	96 ppm, at 15% O2 or 5.5 lb/MWh ² Actual: 4.61 lb/MWh	12-month rolling time period as determined at the end of each calendar month	EUTURBINE
Hydrogen Chloride	8.3 tpy Actual: 0.39 TPY	12-month rolling time period as determined at the end of each calendar month	EUTURBINE
SO2	0.9 lb/MWh or 0.15 lb/MMBTU ² Actual: Appears to be in compliance.	12-month rolling time period as determined at the end of each calendar month	EUTURBINE

Facility appears to be in compliance

TESTING/SAMPLING

1. The permittee shall verify the nitrogen oxide (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), sulfur dioxide (SO2), and hydrogen chloride (HCI) emission rates from EUTURBINE by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant Test Method Reference

NOx 40 CFR Part 60, Appendix A

CO 40 CFR Part 60, Appendix A

VOC 40 CFR Part 60, Appendix A

SO2 40 CFR Part 60, Appendix A

HCI 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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

2. The permittee shall verify the nitrogen oxide (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), sulfur dioxide (SO2), and hydrogen chloride (HCI) emission rates from EUTURBINE, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

3. The permittee shall, in accordance with the requirements of 40 CFR 60.4340 and 60.4400, perform annual performance tests for NOx emissions or, alternatively, install, calibrate, maintain and operate continuous emission or parameter monitoring. If the permittee chooses to conduct performance testing as the method of determining compliance and the NOx emission result from the performance test is less than or equal to 75 percent of the NOx emission limit for the turbine, the permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit for the turbine, the XC emission limit for the turbine, the permission limit for the turbine, the performance test exceed 75 percent of the NOx emission limit for the XC emission limit for the turbine, the XC emission limit for the turbine, the performance test exceed 75 percent of the NOx emission limit for the XC emission limit for the turbine, the permission limit for the turbine, the permittee must resume annual performance tests2. (40 CFR 60.4340)

4. The permittee shall 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 336.1213(3))

Facility appears to be in compliance.

MONITORING/RECORDKEEPING

1. The permittee shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR 60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR 60.4415 or as alternatively described in 40 CFR 60.4360.2 (40 CFR 60.4360 and 40 CFR 60.4365)

2. The permittee shall calculate and record the volatile organic compound (VOC) emission rate, in tons emitted from EUTURBINE, for each calendar month. The permittee shall also calculate the average pound per hour emission rate by dividing the calculated calendar month emission rate by the monthly operating hours.2 (R 336.1702(a))

3. The permittee shall calculate and record the carbon monoxide emission rate, in tons emitted from EUTURBINE, for each calendar month. The permittee shall also calculate the average pound per hour emission rate by dividing the calculated calendar month emission rate by the monthly operating hours.2 (40 CFR 52.21(c) and (d))

4. The permittee shall calculate and record the nitrogen oxide emission rate, in tons emitted from EUTURBINE, for each calendar month. The permittee shall also calculate the average pound per hour emission rate by dividing the calculated calendar month emission rate by the monthly operating hours.2 (40 CFR 52.21(c) and (d))

5. The permittee shall calculate and record the hydrogen chloride (HCI) emission rate, in tons emitted from EUTURBINE, for each calendar month.1 (R 336.1225)

6. If you operate a stationary combustion turbine which fires landfill gas, you must monitor and record fuel usage daily with a fuel meter that measures the volumetric flow rate of the landfill gas. In addition, you must operate the turbine in a manner which minimizes HAP emissions. (40 CFR 63.6125(c) and 40 CFR 63.6155(b))

Facility appears to be in compliance. All records were available upon request and were organized in a satisfactory manner.

REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

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

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

4. The permittee shall submit any performance test reports, including RATA reports, to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

5. If you operate as a stationary combustion turbine which fires landfill gas you must submit an annual report. The report shall be postmarked or received by the

appropriate AQD District Office by March 15 for the previous calendar year and contain the data specified in (i) through (iii) below: (40 CFR 63.6150(c)

a. Landfill gas fuel flow rate. (40 CFR 63.6150(c)(1))

b. The operating limits provided in your federally enforceable permit, and any deviations from these limits. (40 CFR 63.6150(c)(2))

c. Any problems or errors suspected with meters. (40 CFR 63.6150(c)(3))

Facility appears to be in compliance. All reports are reviewed upon receipt and were received in a timely manner.

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:

Facility appears to be in compliance. The stack appeared to be within ROP requirements.

OTHER REQUIREMENT(S)

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and KKKK, as they apply to EU-TURBINE.2 (40 CFR Part 60, Subparts A and KKKK)

2. The permittee shall comply with all provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) as specified in 40 CFR Part 63, Subparts A and YYYY, as they apply to EU-TURBINE. (40 CFR Part 63, Subparts A and YYYY)

Facility appears to be in compliance. The facility appears to be complying with the aforementioned regulations.

FGTREATMENTSYS-XXX

DESCRIPTION: A treatment system used as a control system per 40 CFR 60.762(b)(2) (iii)(c) that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 60, Subpart XXX requirements.

Emission Unit: EUTREATMENTSYS

POLLUTION CONTROL EQUIPMENT: Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 60.762(b)(2)(iii)(A) or (B).

MONITORING/RECORDKEEPING

1. 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 and must keep records according to 40 CFR 63.1983(e)(1) through (5). (40 CFR 60.768(e))

Facility appears to be in compliance.

REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

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

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

4. 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 semiannual reporting requirements in 40 CFR 63.1981(h) in lieu of 40 CFR 60.767 (g). (40 CFR 60.767(g))

5. 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/electronic-reporting-air-emissions/electronic-reporting-tool-ert), 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 USEPA 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://www.epa.gov/chief). 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 USEPA 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))

6. 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 336.1213(3)(c), R 336.2001(5))

The facility appears to be in compliance. The facility appears to be complying with the aforementioned requirements.

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. Each permittee must comply with the provisions of 40 CFR 60.763, 40 CFR 60.765, and 40 CFR 60.766; or 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 63.1958, 40 CFR 63.1960, and 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 60.763, 40 CFR 60.765 and 40 CFR 60.766. (40 CFR 60.762(b)(2)(iv), 40 CFR Part 60, Subparts A and XXX)

The facility appears to be in compliance.

FGTREATMENTSYS-AAAA

DESCRIPTION: A treatment system that filters, de-waters, and compresses landfill gas for subsequent sale or beneficial use. This flexible group contains 40 CFR Part 63, Subpart AAAA requirements.

Emission Unit: EUTREATMENTSYS

POLLUTION CONTROL EQUIPMENT: Any emissions from any atmospheric vents or stacks associated with the treatment system subject to 40 CFR 63.1959(b)(2)(iii)(A) or (B).

PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate the treatment system at all times when the collected gas is routed to the treatment system. (40 CFR 63.1958(f))

2. The permittee must operate the treatment system so that any emissions from any atmospheric vents or stacks associated with the treatment system must comply with 40 CFR 63.1959(b)(2)(iii)(A) or (B). (40 CFR 63.1959(b)(2)(iii)(C) and (D))

3. The permittee must develop a site-specific treatment system monitoring plan as required in 40 CFR 63.1983(b)(5)(ii). The plan must at a minimum contain the following: (40 CFR 63.1961(g))

a. Monitoring of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. (40 CFR 63.1983(b)(5)(ii)(A))

b. Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering

analysis for each intended end use of the treated landfill gas. (40 CFR 63.1983(b)(5) (ii)(B))

c. Documentation of the monitoring methods and ranges, along with justification for their use. (40 CFR 63.1983(b)(5)(ii)(C))

d. List of responsible staff (by job title) for data collection. (40 CFR 63.1983(b)(5)(ii) (D))

e. Processes and methods used to collect the necessary data. (40 CFR 63.1983(b)(5) (ii)(E))

f. Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems (CMS). (40 CFR 63.1983(b)(5)(ii)(F))

4. The monitoring requirements apply at all times the treatment system is operating except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. The permittee must complete monitoring system repairs in

response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. (40 CFR 63.1961(h))

The facility appears to be in compliance.

DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must install and properly operate a treatment system in accordance with 40 CFR 63.1981(d)(2). (40 CFR 63.1961(d))

2. The permittee must install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. (40 CFR 63.1961(g))

The facility appears to be in compliance.

MONITORING/RECORDKEEPING

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

1. The permittee must keep monthly records of all treatment system operating parameters specified to be monitored according to 40 CFR 63.1961. The records must include:

a. Continuous records of the indication of flow and gas flow rate to the treatment system. (40 CFR 63.1983(c)(2))

b. The indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines. (40 CFR 63.1983(c)(2))

c. Maintenance and repair of the monitoring system. (40 CFR 63.1961(h))

The facility appears to be in compliance.

REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

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

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

4. The permittee must submit to the appropriate AQD District Office semiannual reports for the landfill gas treatment 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. The reports must include the following:

a. The number of times the parameters for the treatment system under 40 CFR 63.1961(g) were exceeded. (40 CFR 63.1981(h)(1)(iii)

b. Description and duration of all periods when the gas stream is diverted from the treatment system through a bypass line or the indication of bypass flow. (40 CFR 63.1981(h)(2))

c. Description and duration of all periods when the treatment system was not operating and length of time the treatment system was not operating. (40 CFR 63.1981(h)(3))

5. The permittee must submit reports electronically according to the following:

a. Within 60 days after the date of completing each performance test required, submit the results of the performance test with 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/electronic-reporting-air-emissions/electronic-reportingtool-ert). Submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the USEPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. (40 CFR 63.1981(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, 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 USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. (40 CFR 63.1981(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://www.epa.gov/chief). 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 semiannual reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If 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))

6. The permittee shall submit any performance test reports and all other reports required by 40 CFR Part 63, Subpart AAAA to the appropriate AQD District Office, in a format approved by the appropriate AQD District Supervisor. (R 336.1213(3)(c), R 336.2001(5))

The facility appears to be in compliance.

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)

The facility appears to be in compliance.

FGRICEMACT-ZZZZ

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

Emission Unit: EUEMERGEN#1 (10 MMBTU/hr diesel fired emergency generator)

MATERIAL LIMIT(S)

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

The facility appears to be in compliance.

PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall operate and maintain each engine in FGRICEMACT-ZZZZ and after-treatment control device (if any) in a manner consistent with good air pollution control practices for minimizing emissions. (40 CFR 63.6605)

2. For each engine in FGRICEMACT-ZZZZ, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. (40 CFR 63.6625(h))

3. The permittee may operate each engine in FGRICEMACT-ZZZZ for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. (40 CFR 63.6640(f)(2))

4. Each engine in FGRICEMACT-ZZZZ may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in SC III.3. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 63.6640(f)(3))

The facility appears to be in compliance.

DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGRICEMACT-ZZZZ with non-resettable hours meters to track the operating hours. (R 336.1213(3))

The facility appears to be in compliance. The hour meter read at 2963.5 (3.5 hours).

MONITORING/RECORDKEEPING

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

1. For each engine in FGRICEMACT-ZZZZ, the permittee shall keep in a satisfactory manner, records of the maintenance conducted to demonstrate that the engine and after-treatment control device (if any) were operated and maintained according to the developed maintenance plan. The permittee shall keep all records on file and make them available to the department upon request. (40 CFR 63.6655(e))

2. The permittee shall monitor and record, the total hours of operation for each engine in FGRICEMACT-ZZZZ on a monthly basis, and the hours of operation during emergency and non-emergency service that are recorded through the non-resettable hour meter for each engine in FGRICEMACT-ZZZZ on a calendar year basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep all records on file and make them available to the department upon request. (R 336.1213(3))

3. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGRICEMACT-ZZZZ, demonstrating that the fuel meets the requirement of SC II.1. The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. The permittee shall keep all records on file and make them available to the department upon request. (40 CFR 80.510(b))

4. The permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). (40 CFR 63.6660(a))

5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.6660(b))

The facility appears to be in compliance. All records were available and were kept in a satisfactory manner.

REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

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

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

Facility appears to be in compliance. All reports are reviewed upon receipt and were received in a timely manner.

OTHER REQUIREMENT(S)

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

Facility appears to be complying with the requirements of the aforementioned regulations.

FGICENGINES

DESCRIPTION: Internal Combustion Engines – an enclosed firebox that maintains a relatively constant limited peak temperature generally uses a limited supply of combustion air.

Emission Units: EUICENGINE#1, EUICENGINE#2, EUICENGINE#3

Pollutant	Limit	Time Period/Operating Scenario	Equipment
NOx	2.93 lbs/hr	Per Hour	Per EUICENGINE
со	7.33 lbs/hr	Per Hour	Per EUICENGINE
voc	0.81 lbs/hr	Per Hour	Per EUICENGINE
HCL	0.60 lbs/hr	Per Hour	Per EUICENGINE

Facility appears to be in compliance.

Material Limits:

Material	Limit	Time Period/Operating Scenario	Equipment
Landfill Gas	37,500 scf/hr	Per Hour	Per EUICENGINE

Facility appears to be in compliance.

DESIGN/EQUIPMENT PARAMETER(S)

1. The output of each internal combustion engine shall not exceed 1478 horsepower.2 (R 336.1205(3))

Facility appears to be in compliance.

TESTING/SAMPLING

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

1. The permittee shall verify the nitrogen oxide (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), and hydrogen chloride (HCI) emission rates from FGICENGINES by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant Test Method Reference

NOx 40 CFR Part 60, Appendix A

CO 40 CFR Part 60, Appendix A

VOC 40 CFR Part 60, Appendix A

HCI 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 and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

2. The permittee shall verify the nitrogen oxide (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), and hydrogen chloride (HCI) emission rates from FGICENGINES, at a minimum, every five years from the date of the last test. If the internal combustion engines are deactivated prior to the five-year minimum testing date requirement, testing must be performed for each engine within 180 days of recommencing operation. The AQD District Supervisor shall be notified when the engines are reactivated for the purposes of this condition. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. (R 336.1213(3))

Facility appears to be in compliance.

MONITORING/RECORDKEEPING

1. The permittee shall continuously monitor and record the kilowatt output of each internal combustion engine. Horsepower shall be determined by dividing the kilowatt output by the product of 0.7457 and the generator and coupling efficiency combined which for the purpose of this permit is 95% (the overall conversion factor for this permit is 0.71 kilowatts per horsepower). (R 336.1213(3))

2. The permittee shall continuously monitor and record the landfill gas consumption rate for all internal combustion engines. Individual consumption rates for the engines shall be calculated by proportioning kilowatt output of each engine to total production of all engines. (R 336.1213(3))

3. The permittee shall monitor and record the total hours of operation for each internal combustion engine for each calendar month. (R 336.1213(3))

4. Using the most recent stack testing emission data, the permittee shall calculate and record the nitrogen oxide, carbon monoxide, volatile organic compounds, and hydrogen chloride emission rates, in tons emitted from each internal combustion engine, for each calendar month. This calculation shall be performed by multiplying the average pound per hour emission rate by the monthly operating hours for each internal combustion engine, and dividing by 2000. (R 336.1213(3)) 5. Using the most recent stack testing emission data, the permittee shall calculate and record the average pound per hour emission rate for nitrogen oxide, carbon monoxide, volatile organic compounds, and hydrogen chloride emission rates for each internal combustion engine. This calculation shall be performed by dividing the calculated calendar month emission rate by the monthly operating hours for each internal combustion engine. (R 336.1213(3))

Facility appears to be in compliance.

REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))

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

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

4. The permittee shall submit any performance test reports, including RATA reports, to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. (R 336.1213(3)(c), R 336.2001(5))

Facility appears to be in compliance. All reports are reviewed upon receipt and were received in a timely manner.

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:

Facility appears to be in compliance. All stacks appear to be within the required dimensions and height.

OTHER REQUIREMENT(S)

1. If any modification, reconstruction, or construction as defined in the General Provisions of 40 CFR Part 63, Subpart A occurs at the facility in regards to the existing or proposed internal combustion engines, the permittee shall comply with all the provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP) as specified in 40 CFR Part 63, Subparts A and ZZZZ. (40 CFR Part 63, Subparts A and ZZZZ)

Facility appears to be in compliance.

_{DATE} 7/25/2024

SUPERVISOR Monica Brothers