

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : PINE TREE ACRES, INC.	SRN : N5984
Location : 36600 29 MILE RD.	District : Warren
	County : MACOMB
City : LENOX State: MI Zip Code : 48048	Compliance Status : Non Compliance
Source Class : MAJOR	Staff : Robert Joseph
FCE Begin Date : 9/30/2022	FCE Completion Date : 3/31/2023
Comments : Scheduled inspection of landfill (Section 1) and gas-to-energy plant (Section 2)	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
03/07/2023	ROP Monthly	Compliance	SUMPTER ENERGY ASSOCIATES - Section 2 March 6, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9) H2S concentration: 418 (ppmv); Permit Limit: 600 (ppm). Max. SO2 emission rate February 2023: 3.21 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 15.4 tons.
03/02/2023	On-site Inspection	Non Compliance	Scheduled inspection of the municipal solid waste landfill and the gas-to-energy plants.
02/10/2023	ROP Monthly	Compliance	SUMPTER ENERGY ASSOCIATES - Section 2 February 6, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9) H2S concentration: 404 (ppmv); Permit Limit: 600 (ppm). Max. SO2 emission rate January 2023: 4.43 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 15.7 tons.

Activity Date	Activity Type	Compliance Status	Comments
02/02/2023	ROP Annual Cert	Compliance	<p>Sumpter Energy: 40 CFR Part 63 Subpart ZZZZ Annual Compliance Report. 40 CFR 63.6650(g)1)-(g) (3). RICE Engines 8 and 9 (Phase II).</p> <p>Total LGF to Phase II: 541,917,004 scf Avg. Methane %: 47.97% Avg. fuel heating value : 485.93 Btu/scf (methane heating content is 1,013 btu/scf) Total heat input for LFG: 263,403 MMBtu Amount of heat input provided by LFG: 100%</p> <p>Facility indicates there were no problems with the continuous fuel flow meters and analyzer this period.</p>
02/02/2023	ROP SEMI 2 CERT	Compliance	<p>Sumpter Energy semi-annual deviation report for time period July 1, 2022 - December 31, 2022.</p> <p>Attachment also includes semi-annual deviation report for January 1, 2022 - June 30, 2022. No deviations reported.</p>

Activity Date	Activity Type	Compliance Status	Comments
01/23/2023	Stack Test	Compliance	<p>NSPS Stack Test Report for the verification of Carbon Monoxide, Nitrogen Oxides, and Volatile Organic Compound Emissions from two (2) CAT G3520C IC Engines - EUCENGINE8 and EUCENGINE9.</p> <p>Testing is to comply with 40 CFR 60 Subpart JJJJ.</p> <p>Engine operating conditions during the test periods:</p> <p>EUCENGINE 8: (Serial # GZJ00189)</p> <ul style="list-style-type: none"> -Generator Output: 1,599 kW -Engine Output: 2,240 hp -Fuel Use: 641 scfm -LFG Methane Content: 45.5% -Air Fuel Ratio: 7.5 -Engine hours: 101,869 <p>-CO Emission Rate 15.1 (lb/hr), Permit Limit 16.3 (lb/hr) -NOx Emission Rate 1.68 (lb/hr), Permit Limit 3.0 (lb/hr) -VOC Emission Rate 0.15 (g/bhp-hr), Permit Limit 1.0 (g/bhp-hr)</p> <p>EUCENGINE 9: (Serial # GZJ00609)</p> <ul style="list-style-type: none"> -Generator Output: 1,579 kW -Engine Output: 2,213 hp -Fuel Use: 618 scfm -LFG Methane Content: 45.8% -Air/Fuel Ratio: 6.8 -Engine hours: 61,317 <p>-CO Emission Rate 13.0 (lb/hr), Permit Limit 16.3 (lb/hr) -NOx Emission Rate 1.70 (lb/hr), Permit Limit 3.0 (lb/hr) -VOC Emission Rate 0.13 (g/bhp-hr), Permit Limit 1.0 (g/bhp-hr)</p>

Activity Date	Activity Type	Compliance Status	Comments
01/03/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>January 2, 2023 Monthly Sulfur Content (SO₂) for FGICENGINES2 (Engines 8 and 9)</p> <p>H₂S concentration: 390 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO₂ emission rate December 2022: 4.27 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 15.0 tons.</p>
12/08/2022	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>December 6, 2022 Monthly Sulfur Content (SO₂) for FGICENGINES2 (Engines 8 and 9) - performed during the yearly Subpart JJJJ test:</p> <p>H₂S concentration: 414 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO₂ emission rate November 2022: 3.31 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 14.1 tons.</p>
11/09/2022	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>November 7, 2022 Monthly Sulfur Content (SO₂) for FGICENGINES2 (Engines 8 and 9):</p> <p>H₂S concentration: 299 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO₂ emission rate October 2022: 3.21 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 13.7 tons.</p>
11/07/2022	Complaint Investigation	Compliance	Odor investigation of the surrounding area near the landfill pertaining to complaints received on 11/01 and 11/07, 2022.
10/24/2022	Reg. Applicability Determination	Compliance	Minor Modification Application

Activity Date	Activity Type	Compliance Status	Comments
10/12/2022	ROP Semi 1 Cert	Compliance	<p>Semi-Annual Deviation Report. Time period January 1, 2022 - June 30, 2022.</p> <p>FGFLARES: No exceedances reported during this reporting period. There were no instances when the flow data to the flare was not recorded every 15 minutes.</p> <p>EUTREATMENTSYS: No deviation reported.</p> <p>FGENGINES: There were no known issues with fuel flow meters.</p> <p>FG-ENGINES: The flow to 8 engines was 540,254 MCF with a heating value 487 BTU/SCF based on a 48.1% methane concentration.</p>

10/10/2022	MACT (Part 63)	Non Compliance	<p>Pine Tree Acres - NESHAP AAAA report January 1 through June 30, 2022.</p> <p>Per Subpart AAAA, 40 CFR 63.1981:</p> <p>MONITORING/EXCEEDANCES: The facility states that 1 gas well temperature exceedance occurred, and 2 pressure exceedances. All were corrected within 60-days. No enhanced monitoring occurred.</p> <p>Facility data shows 22 occurrences (16 for flare 4 and 6 for flare 6) when the 3-hour average combustion temperature was more than 28 C below the performance test for flares 4 and 6, however, this was due to the flare not operating for the entire 3-hour block except for one occurrence due to flare fluctuating below the operational threshold (01-06-22). This is considered a deviation.</p> <p>The facility reports there were 15 surface scan emissions exceeded 500-ppm during the 1st quarter scan, and 3 surface scan exceedances during the 2nd quarter scan. The facility states the exceedances were corrected upon re-monitoring. There were no occurrences when the GCCS vented to the atmosphere for more than 1 hour, and no treatment system exceedances.</p> <p>DIVERSION OF GAS: There is no bypass within the GCCS.</p> <p>COLLECTION SYSTEM and CONTROL DEVICE DOWNTIME: There was 1 occurrence relating to maintenance lasting 2.5 due to maintenance on 02-04-22.</p> <p>SYSTEM EXPANSION: 6 gas wells (as well as additional equipment) were installed during this reporting period and 1 gas well was decommissioned (PTAE509) which the facility did not provide a notification regarding.</p>
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Activity Date	Activity Type	Compliance Status	Comments
10/10/2022	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>October 3, 2022 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9):</p> <p>H2S concentration: 305 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate September 2022: 3.39 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 13.4 tons.</p>

Name: Robert Joseph

Date: 03-31-23

Supervisor:

Joyce