

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> PINE TREE ACRES, INC.	<b>SRN :</b> N5984
<b>Location :</b> 36600 29 MILE RD.	<b>District :</b> Warren
	<b>County :</b> MACOMB
<b>City :</b> LENOX <b>State:</b> MI <b>Zip Code :</b> 48048	<b>Compliance Status :</b> Compliance
<b>Source Class :</b> MAJOR	<b>Staff :</b> Robert Joseph
<b>FCE Begin Date :</b> 4/1/2023	<b>FCE Completion Date :</b> 4/12/2024
<b>Comments :</b> Scheduled inspection of landfill (Pine Tree Acres - Section 1) and gas-to-energy plant (Sumpter Energy - Section 2)	

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
04/01/2024	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>April 1, 2024 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9)</p> <p>H2S concentration: 377 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate March 2024: 3.76 (lb/hr); Permit Limit: 7.5 (lb/hr).</p> <p>12-month rolling total = 15.2 tons</p>

Activity Date	Activity Type	Compliance Status	Comments
03/11/2024	ROP Other	Compliance	<p>Notification of like-engine replacement for EU-ENGINE #2 (CAT Model 3516) per Rule 285(2)(a)(vi). No other changes are expected to occur regarding emissions. Operations began on April 1, 2024.</p> <p>Original Engine:</p> <p>Serial No.: 4EK00952  Manufacture Build Date: 6/3/1996  Horsepower Rating: 1,144 bhp  Electrical Output Rating: 815 kW  Gross Electrical Output  Heat Input Rating (LHV): 8.6 MMBtu/Hr</p> <p>Replacement Engine:</p> <p>Serial No.: 4EK02485  Manufacture Build Date: 5/5/1999  Horsepower Rating: 1,114 bhp  Electrical Output Rating: 815 kW  Gross Electrical Output  Heat Input Rating (LHV): 8.6 MMBtu/Hr</p>
03/05/2024	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>March 4, 2024 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 409 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate February 2024: 3.68 (lb/hr); Permit Limit: 7.5 (lb/hr).  12-month rolling total = 16.3 tons</p>
03/05/2024	On-site Inspection	Compliance	<p>Scheduled inspection of municipal landfill (Pine Tree Acres - Section 1) and gas-to-energy plant (Sumpter Energy - Section 2)</p>

Activity Date	Activity Type	Compliance Status	Comments
02/14/2024	ROP SEMI 2 CERT	Compliance	<p>Sumpter Energy semi-annual deviation report (40 CFR Part 63 Subpart ZZZZ) for time period July 1, 2023 - December 31, 2023.</p> <p>2023 Totals - Monthly Heat Input to Phase II Engines (8 and 9)</p> <p>-Volume of Gas: 491,142,102 ft<sup>3</sup>  -Methane: 53.8%  -Heating value: 544.99 Btu/ft<sup>3</sup>  -MMBtu: 267,107</p> <p>Attachment also includes semi-annual deviation report for January 1, 2023 - June 30, 2023. No deviations reported.</p>

Activity Date	Activity Type	Compliance Status	Comments
02/14/2024	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"> <li>-Generator Output: 1,550 kW</li> <li>-Engine Output: 2,172 hp</li> <li>-Fuel Use: 593 scfm</li> <li>-LFG Methane Content: 52.5%</li> <li>-Air Fuel Ratio: 8.2</li> <li>-Engine hours: 109,929</li> <li>-Draeger Tube sample: 400ppm</li> </ul> <p>-CO Emission Rate 15.6 (lb/hr), Permit Limit 16.3 (lb/hr)          -NOx Emission Rate 1.17 (lb/hr), Permit Limit 3.0 (lb/hr)          -VOC Emission Rate 0.18 (g/bhp-hr), Permit Limit 1.0 (g/bhp-hr)</p> <p>EUCENGINE 9: (Serial # GZJ00609)</p> <ul style="list-style-type: none"> <li>-Generator Output: 1,532 kW</li> <li>-Engine Output: 2,147 hp</li> <li>-Fuel Use: 558 scfm</li> <li>-LFG Methane Content: 50.9%</li> <li>-Air/Fuel Ratio: 7.2</li> <li>-Engine hours: 69,316</li> <li>-Draeger Tube sample: 420ppm</li> </ul> <p>-CO Emission Rate 13.7 (lb/hr), Permit Limit 16.3 (lb/hr)          -NOx Emission Rate 1.46 (lb/hr), Permit Limit 3.0 (lb/hr)          -VOC Emission Rate 0.14 (g/bhp-hr), Permit Limit 1.0 (g/bhp-hr)</p>

Activity Date	Activity Type	Compliance Status	Comments
02/05/2024	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>February 5, 2024 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 414 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate January 2024: 3.89 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.3 tons</p>
01/04/2024	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>January 4, 2024 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 389 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate December 2023: 3.94 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.5 tons</p>
12/11/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>December 6, 2023 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 418 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate November 2023: 3.69 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.5 tons</p>

Activity Date	Activity Type	Compliance Status	Comments
11/30/2023	ROP Other	Compliance	<p>Notification of like-engine replacement for EU-ENGINE #6 (CAT Model 3516) per Rule 285(2)(a)(vi). No other changes are expected to occur regarding emissions. It is expected to occur the week of November 27, 2023. Engine was put on-line at 12-14-23 at 1pm.</p> <p>Original engine</p> <ul style="list-style-type: none"> <li>-Serial No. 3RC00663</li> <li>-Manufacture build date: 09-14-1992</li> <li>-Horsepower rating: 1,138</li> <li>-Electrical output rating: 800 kW gross electrical output</li> <li>-Heat input rating (LHV): 8.6 MMBtu/hr</li> </ul> <p>Replacement Engine:</p> <ul style="list-style-type: none"> <li>-Serial No. CTL00644</li> <li>-Manufacture build date: 10-03-2003</li> <li>-Horsepower rating: 1,138</li> <li>-Electrical output rating: 800 kW gross electrical output</li> <li>-Heat input rating: 8.6 Btu/hr</li> </ul>

11/17/2023	MACT (Part 63)	Compliance	<p>Pine Tree Acres Semi-annual report for Subpart AAAA (NESHAP) for period Jan. 1, 2023 - June 30, 2023:</p> <p>MONITORING/EXCEEDANCES:</p> <p>-Wellhead pressure and temperature: The facility reported 11 gas wells exhibited zero or positive pressure and no gas wells exceeded the NESHAP 145-degree standard temperature. All were resolved within 10 days (60-days is permitted without notifying the AQD).</p> <p>-Enclosed Combustor Monitoring: The facility states continuous records of flow and gas flow to the control device are maintained and there were no instances when the flare temperature was not recorded for greater than 15 minutes. The facility reported that there were 15 occurrences when the 3-hour average combustion temperature was more than 28 C below the performance test for enclosed flare 4 (1,638 F) and 5 occurrences for flare 6 (1,601 F) during this reporting period. Flare 4 operated at approximately 73% of its performance temperature test between 10 min to 1 hr. 20 min. and Flare 6 at approximately 62% of its performance temperature between 10 min to 2 hrs.</p> <p>-Treatment System Monitoring: The facility states there were no deviations or exceedances regarding this.</p> <p>-DIVERSION OF GAS: There is no bypass within the GCCS.</p> <p>-CONTROL DEVICE DOWNTIME: There were no zero occurrences when all the control devices were not in operation.</p> <p>-COLLECTION SYSTEM DOWNTIME: There were 4 occurrences when the GCCS was not operating ranging between 18 min and 30 min due to variable frequency drive overheating and maintenance.</p>
------------	----------------	------------	--

11/17/2023	MACT (Part 63)	Compliance	<p>-SURFACE EMISSIONS MONITORING: The facility reports there were 12 surface monitoring location exceedances of 500 ppm during the 1st quarter scan between February 22 - March 22 and 16 surface monitoring location exceedances of 500 ppm during the 2nd quarter scan between April 27 - May 22. The exceedances were corrected upon re-monitoring.</p> <p>-SYSTEM EXPANSION: 61 gas wells (as well as additional equipment) were installed/re-drilled during this reporting period and 16 gas wells were decommissioned during this reporting period.</p> <p>-ROOT CAUSE/CORRECTIVE ACTION: The facility reports there were no exceedances that required beyond 60-days to correct.</p> <p>-ENHANCED MONITORING: The facility reports there were no wells subject to this.</p>
------------	----------------	------------	--

11/16/2023	ROP Semi 1 Cert	Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 01/01/23 to 06/30/23.</p> <p>*NOTE* This report does not contain the requested information as a result of the August 8, 2023, AQD SEMs audit.* This information is expected to be included in the March 15, 2024, report given its occurrence during the 2nd annual semi-reporting period (July 1 – Dec. 31, 2023).</p> <p>-EU-ASBESTOS: The facility maintains the disposal records and does not report any deviations regarding this.</p> <p>-EU-LANDFILL: . The facility reports there were 12 surface monitoring location exceedances of 500 ppm during the 1st quarter scan between February 22 - March 22 and 16 surface monitoring location exceedances of 500 ppm during the 2nd quarter scan between April 27 - May 22. The exceedances were corrected upon re-monitoring. The facility maintains cover integrity reports and design capacity/solid waste records and there were no deviations regarding either. The facility reports no deviations regarding design capacity records or leachate/liquids addition records. The facility recirculates leachate and maintains that information and reports no deviations.</p> <p>-EUACTIVECOLLECTION: The facility reports 11 exceedances regarding gas well pressure and no gas well temperature exceedances (&gt; 145 F). The facility also reports no deviations regarding maximum gas generation and collection device density, as well as collection system map and asbestos location, and plot map/diagram of collection system maintaining records of each.</p> <p>-TREATMENT SYSTEM: The facility indicates there were no deviations regarding the operating</p>
------------	-----------------	------------	---

11/16/2023	ROP Semi 1 Cert	Compliance	<p>parameters.</p> <p>-FGENCLOSEDFLARES: The facility states continuous records of flow and gas flow to the control device are maintained and there were no instances when the flare temperature was not recorded for greater than 15 minutes. The facility reported that there were 15 occurrences when the 3-hour average combustion temperature was more than 28 C below the performance test for enclosed flare 4 (1,638 F) and 5 occurrences for flare 6 (1,601 F) during this reporting period. Flare 4 operated at approximately 73% of its performance temperature test between 10 min to 1 hr. 20 min. and Flare 6 at approximately 62% of its performance temperature between 10 min to 2 hrs</p> <p>FGOPENFLARES: The facility states continuous records of flow and gas flow to the control device are maintained and there were no instances when the flare temperature was not recorded for greater than 15 minutes The facility maintains performance test records.</p> <p>-FGCOLDCLEANERS: The facility does not report any deviations associated with coldcleaner operations.</p> <p>-FGICENGINES: The facility maintains that landfill gas usage, maintenance log records, emission calculations, records of operational hours, and records to demonstrate compliance with the ROP emission limits are maintained.</p> <p>-FGRICEMACT: The facility maintains fuel usage records which only burn landfill gas.</p> <p>-FGRICENSPS: The facility reports the flow to the 8 engines was 749,177 MCF with a heating value of approximately 525 BTU/SCF based on an average methane concentration of 51.9% with a higher heating value of 1,012 Btu/scf. There were no</p>
------------	-----------------	------------	--

11/16/2023	ROP Semi 1 Cert	Compliance	known issues with fuel flow meters, maintenance records, records of operation, and operating limits.
11/10/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>November 2, 2023 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 378 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate October 2023: 3.96 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.5 tons</p>
10/06/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>October 2, 2023 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 378 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate September 2023: 3.85 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.2 tons.</p>
10/05/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>September 5, 2023 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 384 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate August 2023: 2.85 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 15.7 tons.</p>

Activity Date	Activity Type	Compliance Status	Comments
08/09/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>August 7, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9)</p> <p>H2S concentration: 344 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate July 2023: 4.21 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.4 tons.</p>
08/02/2023	ROP Semi 1 Cert	Compliance	<p>Semi-Annual Deviation Report. Time period January 1, 2023 - June 30, 2023.</p> <p>No deviations to report.</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>
07/03/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>July 3, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9)</p> <p>H2S concentration: 322 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate June 2023: 3.41 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.3 tons.</p>

Activity Date	Activity Type	Compliance Status	Comments
06/08/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>June 5, 2023 Monthly Sulfur Content (SO<sub>2</sub>) for FGICENGINES2 (Engines 8 and 9)</p> <p>H<sub>2</sub>S concentration: 313 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO<sub>2</sub> emission rate May 2023: 3.58 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.2 tons.</p>
06/08/2023	ROP Other	Compliance	<p>Notification of like-engine replacement for EU-ENGINE #7 (CAT Model 3516) per Rule 285(2)(a)(vi). No other changes are expected to occur regarding emissions. It is expected to occur the week of June 5, 2023.</p> <p>Original engine</p> <ul style="list-style-type: none"> <li>-Serial No. CTL00644</li> <li>-Manufacture build date: 10-03-2003</li> <li>-Horsepower rating: 1,148</li> <li>-Electrical output rating: 800 kW gross electrical output</li> <li>-Heat input rating (LHV): 9.1 MMBtu/hr</li> </ul> <p>Replacement Engine:</p> <ul style="list-style-type: none"> <li>-Serial No. 4EK00283</li> <li>-Manufacture build date: 08-18-1994</li> <li>-Horsepower rating: 1,148</li> <li>-Electrical output rating: 800 kW gross electrical output</li> <li>-Heat input rating: 9.1 MMBtu/hr</li> </ul>
06/08/2023	ROP R215 Notification	Compliance	<p>Change of Responsible Official. (see filed document for more information)</p> <p>NextEra Energy Resources, LLC. purchased LES Project Holdings which owns Sumpter Energy.</p> <p>I. Responsible Official - Justin Brenner  II. Signatory Delegation of Authority by RO - Thomas Judge  III. Permit Contact - Edward Werkheiser  IV. Invoicing - See file.</p>

05/22/2023	MACT (Part 63)	Compliance	<p>Pine Tree Acres Semi-annual report for Subpart AAAA (NESHAP) for period July 1, 2022 - December 31, 2022:</p> <p>MONITORING/EXCEEDANCES:</p> <p>-Wellhead pressure and temperature: The facility reported 132 gas wells exhibited zero or positive pressure and that 6 gas wells exceeded the NESHAP 145-degree standard temperature. All were resolved in under 6 days.</p> <p>-Enclosed Combustor Monitoring: The facility reported that there were 33 occurrences when the 3-hour average combustion temperature was more than 28 C below the performance test for enclosed flare 4 (1638 F, 27 times) and flare 6 (1601 F, 6 times) during this reporting period. All time periods lasted between 10 min and 2 hr 10 min.</p> <p>-Treatment System Monitoring: The facility states there were no deviations or exceedances regarding this.</p> <p>-DIVERSION OF GAS: There is no bypass within the GCCS.</p> <p>-CONTROL DEVICE DOWNTIME: There were no zero occurrences when the control devices were not in operation.</p> <p>-COLLECTION SYSTEM DOWNTIME: There were six occurrences when the GCCS was not operating ranging between 10 min and 2 hr 10 min due to power outage, maintenance, construction, and low temperature shutdown.</p> <p>-SURFACE EMISSIONS MONITORING: The facility reports there were 11 surface scan emissions exceeded 500-ppm during the 3rd quarter scan, and 15 surface scan exceedances during the 2nd quarter scan. The facility states the exceedances were corrected upon re-monitoring.</p> <p>-SYSTEM EXPANSION: 50 gas</p>
------------	----------------	------------	--

05/22/2023	MACT (Part 63)	Compliance	<p>wells (as well as additional equipment) were installed/re-drilled during this reporting period and 17 gas wells were decommissioned during this reporting period.</p> <p>-ROOT CAUSE/CORRECTIVE ACTION: The facility reports there were no exceedances that required beyond 60-days to correct.</p> <p>-ENHANCED MONITORING: The facility reports there were no wells subject to this.</p> <p>-LIQUIDS ADDITION: The facility reported leachate circulation of 445,000 gallons.</p>
05/22/2023	ROP Annual Cert	Compliance	<p>Pine Tree Acres Annual Report Jan. 1 - Dec. 31, 2022.</p> <p>See date 09/19/22 for Semi-annual reporting period (Jan. 1, 2022 - June. 30, 2022) and date 03/20/23 for Semi-annual reporting period (July 1, 2022 - Dec. 31, 2022).</p>

05/22/2023	Stack Test	Compliance	<p>NSPS Stack Test Report for the verification of Carbon Monoxide, Nitrogen Oxides, and Volatile Organic Compound Emissions from (8) CAT G3520C RICE ENGINES - EUICENGINE1 through EUICENGINE8.</p> <p>Engine 1: (#GZJ00463) - 86,645 hrs.  Generator Output: 1,624 kW.  Engine Output: 2,269 bhp.  Fuel Use: 586 ft3.  Air-to-fuel-ratio: 6.8  LFG CH4 Content: 50.3%.  Exhaust gas temperature: 971 F  Exhaust gas flow: 4,693 scfm  CO emission rate: 13.3 lb/hr (Permit Limit 16.3), 2.67 g/bhp-hr (Permit Limit 3.3).  NOx emission rate: 1.66 lb/hr (Permit Limit 3.0), 0.33 g/bhp-hr (Permit Limit 0.6).  VOC emission rate: 0.61 lb/hr (Permit Limit 1.0), 0.12 g/bhp-hr (Permit Limit 1.0)</p> <p>Engine 2: (#GZJ00462) - 82,189 hrs.  Generator Output: 1,640 kW.  Engine Output: 2,292 bhp.  Fuel Use: 630 ft3  Air-to-fuel-ratio: 7.2  LFG CH4 content: 50.1%  Exhaust gas temperature: 960 F  Exhaust gas flow: 4,607 scfm  CO emission rate: 14.2 lb/hr (Permit Limit 16.3), 2.80 g/bhp-hr (Permit Limit 3.3).  NOx emission rate: 1.34 lb/hr (Permit Limit 3.0), 0.27 g/bhp-hr (Permit Limit 0.6).  VOC emission rate: 0.85 lb/hr (Permit Limit 1.0), 0.17 g/bhp-hr (Permit Limit 1.0).</p> <p>Engine 3: (#GZJ00465) - 80,542 hrs.  Generator Output: 1,640 kW.  Engine Output: 2,291 bhp.  Fuel Use: 606 ft3  Air-to-fuel-ratio: 7.3  LFG CH4 Content: 49.8%.  Exhaust gas temperature: 929 F  Exhaust gas flow: 4,726 scfm  CO emission rate: 15.5 lb/hr (Permit Limit 16.3), 3.07 g/bhp-hr (Permit Limit 3.3).  NOx emission rate: 1.15 lb/hr (Permit Limit 3.0), 0.23 g/bhp-hr (Permit Limit 0.6).</p>
------------	------------	------------	---

05/22/2023	Stack Test	Compliance	<p>VOC emission rate: 0.90 lb/hr (Permit Limit 1.0), 0.18 g/bhp-hr (Permit Limit 1.0)</p> <p>Engine 4: (#GZJ00464) - 83,764 hrs.  Generator Output: 1,635 kW.  Engine Output: 2,284 bhp.  Fuel Use: 588 ft<sup>3</sup>  Air-to-fuel-ratio: 7.1  LFG CH<sub>4</sub> Content: 49.9%  Exhaust gas temperature: 962 F  Exhaust gas flow: 4,265 scfm  CO emission rate: 13.3 lb/hr (Permit Limit 16.3), 2.64 g/bhp-hr (Permit Limit 3.3).  NO<sub>x</sub> emission rate: 1.49 lb/hr (Permit Limit 3.0), 0.30 g/bhp-hr (Permit Limit 0.6).  VOC emission rate: 0.60 lb/hr (Permit Limit 1.0), 0.12 g/bhp-hr (Permit Limit 1.0)</p> <p>Engine 5: (#GZJ00456) - 79,946 hrs  Generator Output: 1,629 kW.  Engine Output: 2,276 bhp.  Fuel Use: 584 ft<sup>3</sup>  Air-to-fuel-ratio: 7.3  LFG CH<sub>4</sub> Content: 50.7%  Exhaust gas temperature: 942 F  Exhaust gas flow: 4,571 scfm  CO emission rate: 13.1 lb/hr (Permit Limit 16.3), 2.61 g/bhp-hr (Permit Limit 3.3).  NO<sub>x</sub> emission rate: 1.21 lb/hr (Permit Limit 3.0), 0.24 g/bhp-hr (Permit Limit 0.6).  VOC emission rate: 0.79 lb/hr (Permit Limit 1.0), 0.16 g/bhp-hr (Permit Limit 1.0)</p> <p>Engine 6: (#GZJ00466) - 80,074 hrs.  Generator Output: 1,637 kW.  Engine Output: 2,286 bhp.  Fuel Use: 584 ft<sup>3</sup>  Air-to-fuel-ratio: 7.3  LFG CH<sub>4</sub> Content: 51.3%.  Exhaust gas temperature: 935 F  Exhaust gas flow: 4,376 scfm  CO emission rate: 11.4 lb/hr (Permit Limit 16.3), 2.26 g/bhp-hr (Permit Limit 3.3).  NO<sub>x</sub> emission rate: 1.23 lb/hr (Permit Limit 3.0), 0.24 g/bhp-hr (Permit Limit 0.6).  VOC emission rate: 0.71 lb/hr (Permit Limit 1.0), 0.14 g/bhp-hr (Permit Limit 1.0).</p>
------------	------------	------------	---

05/22/2023	Stack Test	Compliance	<p>Engine 7: (#GZJ00467) - 78,955 hrs.  Generator Output: 1,633 kW.  Engine Output: 2,281 bhp.  Fuel Use: 607 ft<sup>3</sup>  Air-to-fuel-ratio: 7.2  LFG CH<sub>4</sub> Content: 51.4%,  Exhaust gas temperature: 960 F  Exhaust gas flow: 5,052 scfm  CO emission rate: 13.9 lb/hr  (Permit Limit 16.3), 2.77 g/bhp-hr  (Permit Limit 3.3).  NO<sub>x</sub> emission rate: 1.05 lb/hr  (Permit Limit 3.0), 0.21 g/bhp-hr  (Permit Limit 0.6).  VOC emission rate: 0.84 lb/hr  (Permit Limit 1.0), 0.17 g/bhp-hr  (Permit Limit 1.0).</p> <p>Engine 8: (#GZJ00457) - 83,028 hrs  Generator Output: 1,648 kW.  Engine Output: 2,303 bhp.  Fuel Use: 598 ft<sup>3</sup>  Air-to-fuel-ratio: 7.2  LFG CH<sub>4</sub> Content: 51.3%.  Exhaust gas temperature: 961 F  Exhaust gas flow: 4,875 scfm  CO emission rate: 16.0 lb/hr  (Permit Limit 16.3), 3.15 g/bhp-hr  (Permit Limit 3.3).  NO<sub>x</sub> emission rate: 1.27 lb/hr  (Permit Limit 3.0), 0.25 g/bhp-hr  (Permit Limit 0.6).  VOC emission rate: 0.88 lb/hr  (Permit Limit 1.0), 0.17 g/bhp-hr  (Permit Limit 1.0)</p>
------------	------------	------------	---

05/19/2023	ROP SEMI 2 CERT	Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 07/01/22 to 12/31/22.</p> <p>-EU-ASBESTOS: The facility maintains the disposal records and does not report any deviations regarding this.</p> <p>-EU-LANDFILL: The facility reports no deviations regarding design capacity records or leachate/liquids addition records. The facility reports there were 11 surface monitoring location exceedances of 500 ppm during the 3rd quarter scan between July 26 - September 6, and 15 surface monitoring location exceedances of 500 ppm during the 4th quarter scan between November 3 - 23, 2022. The exceedances were corrected upon re-monitoring. The facility maintains cover integrity reports and design capacity records and there were no deviations regarding either. The facility recirculates leachate and maintains that information and reports no deviations.</p> <p>-EUACTIVECOLLECTION: The facility there were no exceedances regarding gas well pressure or temperature, and that no enhanced monitoring occurred (gas well temperatures greater than 165 F). The facility also reports no deviations regarding maximum gas generation and collection device density, as well as collection system map and asbestos location, and plot map/diagram of collection system maintaining records of each.</p> <p>-TREATMENT SYSTEM: The facility indicates there were no deviations regarding the operating parameters.</p> <p>-FGENCLOSEDFLARES: The facility states continuous records of flow and gas flow to the control device are maintained and there were no instances when the flare temperature was not recorded for greater than 15 minutes. The facility reported that there were 27 occurrences when the 3-hour</p>
------------	-----------------	------------	--

05/19/2023	ROP SEMI 2 CERT	Compliance	<p>average combustion temperature was more than 28 C below the performance test for enclosed flare 4 (1,638 F) and 6 occurrences for flare 6 (1,601 F) during this reporting period. Flare 4 operated at approximately 70% of its performance temperature test between 10 min to 2 hr. 40 min. and Flare 6 at approximately 75% of its performance temperature between 10 min to 2 hrs. 10 min.</p> <p>FGOPENFLARES: The facility states continuous records of flow and gas flow to the control device are maintained and there was 1 instance when the flare temperature was not recorded for greater than 15 minutes (Flare 5) due to electrical maintenance for a period of 4 hrs 50 min. The facility maintains performance test records.</p> <p>-FGCOLDCLEANERS: The facility does not report any deviations associated with coldcleaner operations.</p> <p>-FGICENGINES: The facility maintains that landfill gas usage, maintenance log records, emission calculations, records of operational hours, and records to demonstrate compliance with the ROP emission limits are maintained.</p> <p>-FGRICEMACT: The facility maintains fuel usage records which only burn landfill gas.</p> <p>-FGRICENSPS: The facility reports the flow to the 8 engines was 540,254 MCF with a heating value of approximately 487 BTU/SCF based on an average methane concentration of 48.1% with a higher heating value of 1,012 Btu/scf. There were no known issues with fuel flow meters, maintenance records, records of operation, and operating limits.</p>
05/16/2023	Annual Emissions Report (or MAERS)	Compliance	Sumpter Energy MAERS certification form.
05/15/2023	Annual Emissions Report (or MAERS)	Compliance	MAERS Pine Tree Acres Report Submission.

Activity Date	Activity Type	Compliance Status	Comments
05/08/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>May 1, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9)</p> <p>H2S concentration: 438 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate April 2023: 3.69 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 16.0 tons.</p>
04/07/2023	ROP Monthly	Compliance	<p>SUMPTER ENERGY ASSOCIATES - Section 2</p> <p>April 3, 2023 Monthly Sulfur Content (SO2) for FGICENGINES2 (Engines 8 and 9)</p> <p>H2S concentration: 394 (ppmv); Permit Limit: 600 (ppm).</p> <p>Max. SO2 emission rate March 2023: 3.28 (lb/hr); Permit Limit: 7.5 (lb/hr). 12-month rolling total = 15.7 tons.</p>

Name: Robert Joseph

Date: 04-12-24

Supervisor: Joyce