

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> EAGLE VALLEY LANDFILL	<b>SRN :</b> N3845
<b>Location :</b> 600 W. SILVER BELL RD.	<b>District :</b> Warren
	<b>County :</b> OAKLAND
<b>City :</b> ORION TWP <b>State:</b> MI <b>Zip Code :</b> 48359	<b>Compliance Status :</b> Compliance
<b>Source Class :</b> MAJOR	<b>Staff :</b> Robert Joseph
<b>FCE Begin Date :</b> 9/29/2022	<b>FCE Completion Date :</b> 4/25/2023
<b>Comments :</b> Scheduled inspection of municipal landfill.	

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
04/11/2023	ROP Annual Cert	Compliance	Annual Report Jan. 1 - Dec. 31, 2022.  See date 09/16/22 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).

04/11/2023	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 XXX/AAAA: The facility reports no deviations regarding design capacity records or leachate/liquids addition records. The facility reports there were six surface monitoring location exceedances of 500 ppm during the 3rd quarter scan on September 15, 2022, and three surface monitoring location exceedances of 500 ppm during the 4th quarter scan on October 25, 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 reports that no liquids were added, or leachate recirculated.</p> <p>-EUACTIVECOLLECTION XXX/AAAA: The facility reports there no deviations with the maximum generation flowrate, collection system map, or asbestos locations. 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 reports no deviations regarding maximum expected gas generation, SSM records, or collection system diagrams.</p> <p>-TREATMENT SYSTEM XXX/AAAA: The facility indicates there were no deviations regarding the operating system.</p> <p>-FGENCLOSEDFLARES: The facility states that performance test records, continuous flare temperature records, and rolling emission calculations are maintained. The facility reported that there were 22 occurrences when the 3-hour average</p>
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04/11/2023	ROP SEMI 2 CERT	Compliance	<p>combustion temperature was more than 28 C below the performance test for enclosed flare 3 (1516 F) during this reporting period. The facility contacted the flare manufacturer, Parnel Inc., and it was determined that the programmable logic controller experienced two malfunctions likely due to utility power interruptions – the low temperature down timer and low-temperature set point. Upon discovery, the facility confirmed the issues have been resolved. The facility updated its MAP and implemented additional monitoring protocols in an attempt to prevent this from occurring again.</p> <p>-FGICENGINES: The facility maintains that maintenance log records, emission calculations, and records of operational hours are maintained.</p> <p>-FGRICEMACT: The facility maintains fuel usage records and reports the flow to two engines was 224,411 MCF with a heating value 517.14 BTU/SCF based on an average methane concentration of 51.1% with a higher heating value of 1,012 Btu/scf. There were no known issues with fuel flow meters.</p> <p>-FGCOLDCLEANERS: The facility does not report any deviations associated with coldcleaner operations.</p> <p>-EUEMERGENCYGENEX: The emission unit has been removed from the site and the facility does not report any previous deviations.</p>
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04/11/2023	MACT (Part 63)	Compliance	<p>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 states that no gas wells exhibited zero or positive pressure and that no gas wells exceeded the NESHAP 145-degree standard temperature.</p> <p>-Enclosed Combustor Monitoring: The facility reported that there were 22 occurrences when the 3-hour average combustion temperature was more than 28 C below the performance test for enclosed flare 3 (1516 F) during this reporting period. The facility contacted the flare manufacturer, Parnel Inc., and it was determined that the programmable logic controller experienced two malfunctions likely due to utility power interruptions – the low temperature down timer and low-temperature set point. Upon discovery, the facility confirmed the issues have been resolved. The facility updated its MAP and implemented additional monitoring protocols in an attempt to prevent this from occurring again.</p> <p>-Treatment System Monitoring: The facility 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 zero occurrences when the GCCS was not operating.</p> <p>-SURFACE EMISSIONS MONITORING: The facility reports there were six surface scan emissions exceeded 500-ppm during the 3rd quarter scan, and three surface scan exceedances during the 2nd quarter scan. The</p>
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04/11/2023	MACT (Part 63)	Compliance	<p>facility states the exceedances were corrected upon re-monitoring.</p> <p>-SYSTEM EXPANSION: 16 gas wells (as well as additional equipment) were installed during this reporting period and 14 gas wells were decommissioned or redrilled 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>
03/22/2023	On-site Inspection	Compliance	Scheduled inspection municipal solid waste landfill.
12/13/2022	Stack Test	Compliance	<p>Test Report for Gas Engine #2 (FGICENGINES) per yearly NSPS Subpart JJJJ testing. Engine 2 test had been delayed due to unexpected engine failure prior to testing on 09/21 and was off-line until engine replacement occurred on 10/11/22.</p> <p>Test Report for landfill gas fired RICE Engine 2 CAT G3520C (FGICENGINES)</p> <p>ENGINE 2: GZJ00672</p> <p>-Generator Output 1,633 kW,          -Engine horsepower 2,289 bhp,          -Fuel Use 547 ft<sup>3</sup>,          -LFG CH<sub>4</sub> Content 51.6%,          -Air to Fuel Ratio 7.3%          -Moisture 12.2%,          -Exhaust gas temperature 936 F          -Exhaust gas flowrate 5,470 ft<sup>3</sup>/m          -Engine hours: 54,927</p> <p>-CO emission rate 2.55 g/bhp-hr (Permit Limit 4.13),          -NO<sub>x</sub> emission rate 0.52 g/bhp-hr (Permit Limit 0.9),          -VOC emission rate 0.10 g/bhp-hr (Permit Limit 1.0).</p>

Activity Date	Activity Type	Compliance Status	Comments
11/18/2022	MACT (Part 63)	Compliance	<p>Decommission notice for wells EGLEW136, EGLEW1R2, EGLHV176, EGLHV199. Wells were installed as sacrificial wells and are producing low gas flows. Facility indicates additional wells in the vicinity will maintain gas capture as noted its GCCS plan. Request has been reviewed and does not deviate from the GCCS or the NSPS/MACT.</p> <p>The facility provided an updated notification stating that well HV176 has been replaced by well EW222. They were informed this would not be an issue provided surface scan emissions remained below 500 ppm and provided sufficient gas collection occurred to mitigate nuisance odors to the surrounding community.</p>
11/07/2022	Stack Test	Compliance	<p>Test Report for Gas Engine #1 (FGICENGINES) per yearly NSPS Subpart JJJJ testing. Engine 2 was not tested due to unexpected engine failure prior to testing on 09/21 and was off-line until engine replacement occurred on 10/11/22.</p> <p>Test Report for landfill gas fired RICE Engine 1 CAT G3520C (FGICENGINES)</p> <p>ENGINE 1: GZJ00418</p> <ul style="list-style-type: none"> <li>-Generator Output 1,617 kW,</li> <li>-Engine horsepower 2,256 bhp,</li> <li>-Fuel Use 576 ft3,</li> <li>-LFG CH4 Content 51.5%,</li> <li>-Air to Fuel Ratio 7.1%</li> <li>-Moisture 12.9%,</li> <li>-Exhaust gas temperature 973 F</li> <li>-Exhaust gas flowrate 5,352 ft3/m</li> <li>-Engine hours: 96,010.6</li> </ul> <ul style="list-style-type: none"> <li>-CO emission rate 3.33 g/bhp-hr (Permit Limit 4.13),</li> <li>-NOx emission rate 0.58 g/bhp-hr (Permit Limit 0.9),</li> <li>-VOC emission rate 0.12 g/bhp-hr (Permit Limit 1.0).</li> </ul>

Activity Date	Activity Type	Compliance Status	Comments
10/24/2022	ROP Other	Compliance	<p>Notification of like-engine replacement for EU-ENGINE #2 (CAT Model 3520C) per Rule 285 (2)(a)(vi). No other changes are expected to occur regarding emissions. The previous existing engine was removed on 09/21/22 due to malfunctioning of the engine piston head. Start-up replacement began 10/11/22.</p> <p>Existing engine</p> <ul style="list-style-type: none"> <li>-Serial No. GZJ00670</li> <li>-Manufacture build date: 11-18-2013</li> <li>-Horsepower rating: 2,242</li> <li>-Displacement: 86.3 liters</li> <li>-Hours: 27,009</li> </ul> <p>Replacement Engine</p> <ul style="list-style-type: none"> <li>-Serial No. GZJ00672</li> <li>-Manufacture build date: 11-20-2013</li> <li>-Horsepower rating: 2,242</li> <li>-Displacement: 86.3 liters</li> <li>-Hours: 54,580</li> </ul>

Activity Date	Activity Type	Compliance Status	Comments
10/11/2022	MACT (Part 63)	Compliance	<p>NESHAP AAAA report January 1 through June 30, 2022.</p> <p>Per Subpart AAAA, 40 CFR 63.1981:</p> <p><b>MONITORING/EXCEEDANCES:</b> The facility states there were no gas well temperature or pressures exceedances.</p> <p>Facility data shows 3 occurrences when the 3-hour average combustion temperature was more than 28 C below the performance test for enclosed flares 3 and 4, however, this was due to blower overload and maintenance lasting between 1 hr and 2 hr 40 min.</p> <p>The facility reports there were 24 surface scan emissions exceeded 500-ppm during the 1st quarter scan, and 0 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><b>DIVERSION OF GAS:</b> There is no bypass within the GCCS.</p> <p><b>COLLECTION SYSTEM and CONTROL DEVICE DOWNTIME:</b> There were zero occurrences when the GCCS was not in operation.</p> <p><b>SYSTEM EXPANSION:</b> 10 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>



Activity Date	Activity Type	Compliance Status	Comments
10/05/2022	ROP Semi 1 Cert	Compliance	<p>Semi-Annual Report for Time Period Jan. 1, 2022 - June 30, 2022.</p> <p>EULANDFILL and EUALGCS: The facility did not report any occurrences.</p> <p>FGENCLOSEDFLARES: There were 3 instances when the flares operated at an average combustion chamber temperature more than 28 degrees Celsius below that established during the most recent compliance test, however, the flares did not operate for the entire 3-hour period. The 3 occurrences were due to blower overload and maintenance. There was 1 instance when the flare temperature was not recorded for greater than 15 minutes due to maintenance and electrical inspection on 06-27-22. This event spanned 1 hr 45 min.</p> <p>EUEMERGENCYGENEX: This unit did not operate during this period nor were there any malfunctions or deviations.</p> <p>FGRICEMACT: Fuel flow to the two landfill gas engines was 240,466 MCF with an approximate heating value of 509.04 Btu/scf and an average methane concentration of 50.3%. There were no errors with the fuel flow meters.</p> <p>FGTREATMENTSYS, FGICENGINES, and FGCOLDCLEANERS did not report any deviations.</p>

Name: Robert Joseph

Date: 04-25-23

Supervisor: Joyce [Signature]