

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility : EAGLE VALLEY RECYCLE AND DISPOSAL FACILITY	SRN : N3845
Location : 600 W. SILVER BELL RD.	District : Warren
	County : OAKLAND
City : ORION TWP State: MI Zip Code : 48359	Compliance Status : Compliance
Source Class : MAJOR	Staff : Robert Joseph
FCE Begin Date : 9/30/2020	FCE Completion Date : 9/28/2022
Comments : Scheduled inspection of municipal landfill	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
09/21/2022	On-site Inspection	Compliance	Scheduled inspection of municipal landfill
08/08/2022	ROP Other	Compliance	<p>Notification of like-engine replacement for EU-ICENGINE #2 (CAT Model 3520) per Rule 285(2)(a)(vi). No other changes are expected to occur regarding emissions. The original engine was removed on July 25 and replacement began operating on August 3, 2022.</p> <p>Original engine</p> <ul style="list-style-type: none"> -Serial No. GZJ00433 -Manufacture build date: 06-02-2010 -Horsepower rating: 2,233 -Displacement Liters: 5,266 in3 <p>Replacement Engine:</p> <ul style="list-style-type: none"> -Serial No. GZJ00670 -Manufacture build date: 11-18-2013 -Horsepower rating: 2,242 -Displacement Liters: 5,266 in3

Activity Date	Activity Type	Compliance Status	Comments
06/29/2022	MACT (Part 63)	Compliance	Decommission notice for wells EGLCR12B, EAGLBC04, EAGLBC05, EGLEW160, EGLHV175, and EGLRW191. Wells have failed and settled due to recent filling operations. 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.

05/27/2022	ROP SEMI 2 CERT	Non Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 07/01/21 to 12/31/21. The facility failed to provide notification of a gas well pressure exceedance that was not corrected within 60 days, as well the decommissioning of 9 gas wells. The AQD will not issue a violation notice due to this but the facility has been notified of this for future occurrences.</p> <p>EUACTIVECOLLECTION: There was 1 well that exceeded the pressure limitation and none for temperature. There were no instances when the entire collection system was not in operation in excess of 5 days. The facility installed 2 new gas wells along with an associated header line. There were 22 gas collectors that were also decommissioned.</p> <p>FGENCLOSEDFLARES: The facility states there were 3 instances when the flare data was not recorded every 15 minutes. The events all occurred in July 2021 due to maintenance and a power outages lasting each lasting less than 35 minutes. There were no 3-hour periods when either flare operated more than 28 C below that established during the most recent compliance test.</p> <p>EUTREATMENTSYS and FGENCLOSEDFLARES: Facility indicates there were no instances when all control devices systems simultaneously down for more than 1 hour.</p> <p>EU-LANDFILL: There were 9 locations that initially exceeded 500 ppm during the 3rd quarter scan. There were 6 locations that exceeded 500 ppm during the 4th quarter scan. Facility states all locations were successfully remediated on re-monitoring.</p> <p>EUEMERGENCYGENEX: This is did not operate during this reporting period.</p> <p>FG-ENGINES/RICEMACT: The flow to 2 engines was 256,180 MCF with a heating value 533</p>
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05/27/2022	ROP SEMI 2 CERT	Non Compliance	BTU/SCF based on a 52.7% methane concentration with a higher heating value of 1,012 Btu/scf. There were no known issues with fuel flow meters.
05/25/2022	ROP Annual Cert	Non Compliance	Annual Report Jan. 1 - Dec. 31, 2021. See date 09/14/21 for Semi-annual reporting period (Jan. 1, 2021 - June. 30, 2021) and date 03/16/22 for Semi-annual reporting period (July 1, 2021 - Dec. 31, 2021).
05/24/2022	MAERS	Compliance	MAERS Report Submission.
05/24/2022	MAERS	Compliance	MAERS Certification form received March 16, 2022.

12/08/2021	Stack Test	Compliance	<p>Test Report for the verification of air pollutant emissions from two landfill gas fired RICE (FGICENGINES) and two landfill gas fueled enclosed flares (FGENCLOSEDFLARES) for ROP Renewal and NSPS yearly tests.</p> <p>Test Report for landfill gas fired RICE Engines 1 and 2 (FG-ICENGINES).</p> <p>ENGINE 1: GZJ00418 -Generator Output 1,643 kW, -Engine horsepower 2,292 bhp, -Fuel Use 557 ft3, -LFG CH4 Content 54.3%, -Air to Fuel Ratio 7.2% -Moisture 13.6%, -Exhaust gas temperature 972 F -Exhaust gas flowrate 5,327 ft3/m -CO emission rate 3.43 g/bhp-hr (Permit Limit 4.13), -NOx emission rate 0.62 g/bhp-hr (Permit Limit 0.9), -VOC emission rate 0.09 g/bhp-hr (Permit Limit 1.0). -HCOH emission rate 1.70 lb/hr (Permit Limit 2.07 lb/hr) -SO2 emission rate 1.39 lb/hr (Permit Limit 1.75 lb/hr) -SO2 tons/yr 6.07 (Permit Limit 15.4) -LFG Fuel H2S measurements (Draeger Tubes) 247 ppm</p> <p>ENGINE 2: GZJ00443 -Generator Output 1,640 kW, -Engine horsepower 2,288 bhp, -LFG Fuel Use 546 ft3, -LFG CH4 Content 54.6% -Air to Fuel Ratio 7.3% -Moisture 13.7%, -Exhaust gas temperature 987 F -Exhaust gas flowrate 5,155 ft3/m -CO emission rate 3.33 g/bhp-hr (Permit Limit 4.13), -NOx emission rate 0.71 g/bhp-hr (Permit Limit 0.9), -VOC emission rate 0.09 g/bhp-hr (Permit Limit 1.0). -HCOH emission rate 1.65 lb/hr (Permit Limit 2.07 lb/hr) -SO2 emission rate 1.31 lb/hr (Permit Limit 1.75 lb/hr) -SO2 tons/yr 5.73 (Permit Limit 15.4) -LFG Fuel H2S measurements (Draeger Tubes) 267 ppm</p> <p>ENCLOSED FLARE 3:</p>
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12/08/2021	Stack Test	Compliance	<ul style="list-style-type: none"> -Combustion Temperature 1,598 F -LFG Fuel Use 996 ft3 -LFG CH4 Content 52.9%, -Moisture 8.4% -Exhaust gas temperature 1,332 F -Exhaust gas flowrate 19,970 ft3/m -CO emission rate 0 lb/hr (24.3 lb/hr) -NMOC emission rate 0.26 ppm (20 ppm) -Opacity 0% -LFG Fuel H2S measurements (Draeger Tubes) 207 ppm <p>ENCLOSED FLARE 4:</p> <ul style="list-style-type: none"> -Combustion Temperature 1,600 F -LFG Fuel Use 807 ft3 -LFG CH4 Content 54.9%, -Moisture 9.3% -Exhaust gas temperature 1,569 F -Exhaust gas flowrate 12,906 ft3/m -CO emission rate 0.24 lb/hr (6.1 lb/hr) -NMOC emission rate 0.24 ppm (20 ppm) -Opacity 0% -LFG Fuel H2S measurements (Draeger Tubes) 223 ppm
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10/25/2021	ROP Semi 1 Cert	Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 01/01/21 to 06/30/21.</p> <p>EU-ALGCS: There were 9 wells which exceeded an oxygen exceedance and 1 well exceeded a pressure exceedance limitations. There were no temperature well exceedances. 1 of the wells exhibited this beyond 15-days (oxygen). This occurred on June 14, 2021, when the facility requested opt-in to Subpart AAAA which does not set an oxygen limit.</p> <p>FG-ENCLOSEDFLARES: There were no exceedances. There was two instances when the flare temperature was not recorded greater than 15 minutes due to a power outage of causing a control device shutdown and control device skid shutdown for maintenance.</p> <p>EU-TREATMENT and FG-ENCLOSEDFLARES: None of the devices were down simultaneously for more than 1 hour.</p> <p>FG-ALGCS: There was no time period when the entire system was not in operation in excess of 5 days. There was one instance when the all the control devices were down (20 minutes) due to an power outage.</p> <p>EU-LANDFILL: There were 3 locations that initially exceeded 500 ppm methane during the 1st quarter scan performed on March 9 and March 17. There was 3 location that exceeded 500 ppm methane during the 2nd quarter scan performed on June 4 and June 24. The facility claimed that applied vacuum was increased or installed PVC skirts were installed to well casings to correct the exceedances. There was no expansion of wells this reporting period.</p> <p>EU-EMERGENCYGENEX: No malfunctions. The facility claims it did not operate this period.</p>
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10/25/2021	ROP Semi 1 Cert	Compliance	<p>FG-RICEMACT: Fuel flow to engines was 263,295 MCF and the heating value was 525.7 BTU/SCF. The heating value is based on the average methane concentration 51.9% and the higher heating value of methane of 1,012 BTU/SCF.</p> <p>No errors to the fuel flow meters.</p>
10/21/2021	ROP Semi 1 Cert	Compliance	<p>Semi-annual Startup, Shutdown, and Malfunction Report from 01/01/21 to 06/30/21.</p> <p>Startup Events: There were (9) startup events and all were consistent with the SSM plan. There were no startups during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Shutdown Events: There were (2) shutdown events. There were no shutdowns during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Malfunction Events: There were (7) gas collection control system malfunction events that occurred during this time period. No exceedances occurred. Events were all related to power outages.</p> <p>No Plan Revisions to the SSM.</p>
07/30/2021	Stack Test	Compliance	<p>Stack test plan for emission units per ROP renewal scheduled for Sept. 21-23. The two enclosed flares (CO, NMOC, VE) and two RICE engines (CO, NOx, VOC, SO2, HCOH) will be tested.</p>
05/26/2021	MAERS	Compliance	<p>MAERS Certification form received March 16, 2021.</p>

Activity Date	Activity Type	Compliance Status	Comments
04/22/2021	ROP SEMI 2 CERT	Compliance	<p>Semi-annual startup, shutdown, and malfunction report from 07/01/20 to 12/31/20.</p> <p>Startup Events: There were (12) startup events and all were consistent with the SSM plan. There were no startups during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Shutdown Events: There were (8) shutdown events. There were no shutdowns during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Malfunction Events: There were (4) gas collection control system malfunction events that occurred during this time period. No exceedances occurred. Events were all related to power outages.</p> <p>No Plan Revisions to the SSM.</p>
04/22/2021	ROP Annual Cert	Compliance	<p>Annual Report Jan. 1 - Dec. 31, 2020.</p> <p>See date 09/16/20 for Semi-annual reporting period (Jan. 1, 2020 - June. 30, 2020) and date 03/16/21 for Semi-annual reporting period (July 1, 2020 - Dec. 31, 2020).</p>
04/21/2021	ROP Other	Compliance	<p>NSPS XXX Annual Report</p> <p>Report references information referenced in the facility's semi-annual reports in 2020. Dates 09/16/20 (semi-annual report 01/01/20 - 06/30/20) and 03/16/21 (semi-annual 07/01/20 - 12/31/20) entails the information in these reports.</p>

04/20/2021	ROP SEMI 2 CERT	Compliance	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 07/01/20 to 12/31/20.</p> <p>EU-ALGCS: There were six wells that exhibited an oxygen exceedance. There were not any wells that exceeded a pressure or temperature exceedance. There were not any wells that exhibited an exceedance beyond 15-days.</p> <p>FG-ENCLOSEDFLARES: There were no indications during this period that that flare operated at 28 Celsius below its established average combustion chamber temperature for a 3-hr period. There was three instance when the flare temperature was not recorded greater than 15 minutes due to blower maintenance. (07/20, 11/15, 11/23). The events averaged between 1 to 3 hours due to power outages and EEE meter testing.</p> <p>EU-TREATMENT and FG-ENCLOSEDFLARES: There were two instances when the control devices were down simultaneously for more than 1 hour. The two instances last between 2 to 3 hours on 07/20 and 11/15 due to EEE meter testing and power outage, respectively.</p> <p>FG-ALGCS: There was no time period when the entire system was not in operation in excess of 5 days.</p> <p>EU-LANDFILL: There were four locations that initially exceeded 500 ppm methane during the 3rd quarter scan. The facility claimed that applied vacuum was increased to correct the exceedances. There were four locations that exceeded 500 ppm methane during the 4th quarter. The facility claimed that applied vacuum was increased or PVC skirts were installed to well casings to correct the exceedances. There were also 11 wells installed during this reporting period.</p>
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04/20/2021	ROP SEMI 2 CERT	Compliance	<p>EU-EMERGENCYGENEX: No malfunctions. The facility claims it did not operate this period.</p> <p>FG-RICEMACT: Fuel flow to engines was 298,851 MCF and the heating value was 528.3 BTU/SCF. The heating value is based on the average methane concentration 52.2% and the higher heating value of methane of 1,012 BTU/SCF.</p> <p>No errors to the fuel flow meters.</p>
04/20/2021	NSPS (Part 60)	Compliance	Decommission request for wells HV108, RW4R, RW6R, RW10R3, RW129, RW130, W5R2, W14, W17R, W18R, W114, W131, W125, W126 due to overlay liner construction. Parameters indicated low flows.
02/16/2021	NSPS (Part 60)	Compliance	Decommission horizontal collector TW89R due to high oxygen.
02/03/2021	Other Non ROP	Compliance	The facility is requesting an extension for the application of PTI 91-20 from the Permits Division (permitting of the landfill gas engines and flares).
11/16/2020	NSPS (Part 60)	Compliance	Decommission request well EW 20. Parameters were fine except for low flows.

10/20/2020	ROP Semi 1 Cert	<p>Semi-Annual Report per 40 CFR part 63 Subpart AAAA (NESHAP) for time period 01/01/20 to 06/30/20.</p> <p>EU-ALGCS: There were 14 wells which exceeded a pressure or oxygen limitations. 2 of the wells exhibited this beyond 15-days. Both were requested for decommissioning, No wells exhibited a temperature exceedance.</p> <p>FG-ENCLOSEDFLARES: There were no exceedances. There was one instance when the flare temperature was not recorded greater than 15 minutes due to blower maintenance.</p> <p>EU-TREATMENT and FG-ENCLOSEDFLARES: None of the devices were down simultaneously for more than 1 hour.</p> <p>FG-ALGCS: There was no time period when the entire system was not in operation in excess of 5 days.</p> <p>EU-LANDFILL: There were 11 locations that initially exceeded 500 ppm methane during the 1st quarter scan. The facility claimed that applied vacuum was increased to correct the exceedances. There was 1 location that exceeded 500 ppm methane during the 2nd quarter. The facility claimed that applied vacuum was increased, material cover, and PVC skirts were installed to well casings to correct the exceedances. There was no expansion of wells this reporting period.</p> <p>EU-EMERGENCYGENEX: No malfunctions. The facility claims it did not operate this period.</p> <p>FG-RICEMACT: Fuel flow to engines was 254,747 MCF and the heating value was 522.8 BTU/SCF. The heating value is based on the average methane concentration 51.1% and the higher heating value of methane of 1.012 BTU/SCF.</p>
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10/20/2020	ROP Semi 1 Cert		No errors to the fuel flow meters.
10/15/2020	ROP Semi 1 Cert	Compliance	<p>Semi-annual startup, shutdown, and malfunction report from 01/01/20 to 06/30/20.</p> <p>Startup Events: There were (22) startup events and all were consistent with the SSM plan. There were no startups during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Shutdown Events: There were (11) shutdown events. There were no shutdowns during the reporting period that were not consistent with the SSM Plan. None of the events caused an exceedance.</p> <p>Malfunction Events: There were (11) gas collection control system malfunction events that occurred during this time period. No exceedances occurred. Events were all related to power outages.</p> <p>No Plan Revisions to the SSM.</p>

Name: Robert Joseph

Date: 09-28-22

Supervisor: Joyce