

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

N598872339

<b>FACILITY:</b> CITY ENVIRONMENTAL SERVICES INC OF WATERS		<b>SRN / ID:</b> N5988
<b>LOCATION:</b> 11375 SHERMAN RD, FREDERIC		<b>DISTRICT:</b> Cadillac
<b>CITY:</b> FREDERIC		<b>COUNTY:</b> CRAWFORD
<b>CONTACT:</b> Deb Johnston , Environmental Manager		<b>ACTIVITY DATE:</b> 06/13/2024
<b>STAFF:</b> Caryn Owens	<b>COMPLIANCE STATUS:</b> Compliance	<b>SOURCE CLASS:</b> MAJOR
<b>SUBJECT:</b> On-Site Inspection & Records Review		
<b>RESOLVED COMPLAINTS:</b>		

On Thursday, June 13, 2024, Caryn Owens of the Department of Environment, Great Lakes, and Energy (EGLE) – Air Quality Division (AQD) conducted an unannounced, on-site field inspection and records review of the City Environmental Services Inc. of Waters landfill (SRN: N5988) located at 11375 Sherman Road, Frederic, Crawford County, Michigan. The site is located on the west side of Sherman Road, approximately 1.5 miles south of the Marlette Road and Sherman Road intersection. The site is located in a rural area, approximately ¼ mile north of the Pere Marquette Lake and River, and approximately 1.5 miles southeast of the Village of Waters, Michigan and Interstate I-75 is located approximately ¾ mile west of the facility.

The field inspection and records review were to determine compliance with the Renewable Operating Permit (ROP) MI-ROP-N5988-2021a. The site is currently an area source for hazardous air pollutants (HAPs) and is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP): for the National Emission Standard for Asbestos Standard for active waste disposal sites in 40 CFR, Part 61, Subpart M (Asbestos NESHAP). The site is also currently subject to the Federal Plan requirements for Municipal Solid Waste Landfills as specified in 40 CFR Part 62, Subparts A and OOO.

**Summary:**

The activities covered during the field inspection and records review for the facility indicate the facility was in compliance with ROP MI-ROP-N5988-2021a and no additional actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

**On-site Inspection:**

City Environmental Services Inc. of Waters (CESW) is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) Landfill. The facility currently accepts petroleum contaminated soils, sludge, asbestos containing waste, municipal household waste, and other waste. Landfill gas is collected at CESW by an active gas collection system. This system consists of vertical extraction wells that are installed in the depths of the landfill refuse and removes landfill gas by vacuum that is applied to the well from a blower. Most of the collected landfill gas is then routed to a leachate evaporator where it is combusted as fuel. The landfill gas that is not used by the leachate evaporator is combusted in the flare as necessary. The leachate evaporator is housed in its own building on the west side of the landfill, and the flare is adjacent. Collected leachate is pumped to the building. The landfill gas is used to fire a burner that directs hot exhaust gas through a vessel into which the collected leachate is sprayed. Direct contact between the hot gas and the leachate spray results in evaporation of the leachate. This reduces the amount of leachate that must be collected and disposed of in another manner. Since the NMOC emissions from the landfill have not yet reached 50 Megagrams, there are no operational requirements for the active gas collection system.

At the time of the inspection, I met with Mr. Johns Jones of Waste Management who escorted me around the facility. The weather conditions were cloudy, 76 degrees Fahrenheit, and wind was 10 to 15 miles per hour from the west-southwest. The site consists of 270 acres with approximately 100 acres permitted for landfill use. The landfill accepts approximately 11.4 percent MSW, about 84.5 percent of special waste, and about 4.1 percent demo waste. As previously mentioned, the landfill gas is collected at the site via an active gas collection system through 35 onsite gas wells. The collected landfill gas is routed to an onsite flare where it is destructed. A portion of the landfill gas powers the leachate evaporators. We drove to the leachate evaporator, and 4 of the 6 vessels were operating. The 2nd vessel was down for repairs, and the 6th vessel just went down prior to my arrival, and they were working on it, to get it running again soon. When the 6th vessel is back up and running, the amount of landfill gas going to the flare will drop. The flare was lit during the inspection, but no flame was observed. The majority of the leachate collected at the site is routed to the leachate evaporators and overflow goes to the leachate above ground storage tank. During the field inspection the leachate flow rate was 16.5 gallons per minute. The burner temperatures ranged between 1040-1401 degrees Fahrenheit. The gas flowrate going to the flare was 198 standard cubic feet per minute, and the flare temperature was 870 degrees Fahrenheit. Additionally, the leachate evaporator building contains a storage tank and a clarifier tank for the leachate. The clarifier tank allows heavy material to settle, and lighter material recirculates to the evaporators. The heavier material is disposed of at the landfill.

**Records Review:**

**Source-Wide Conditions:** The facility maintains a fugitive dust plan and it appeared to be followed based on observations during the inspection. No other Source-Wide Conditions are applicable for the facility.

**EULANDFILL<34:** This emission unit is for a Municipal Solid Waste (MSW) landfill that commenced construction, reconstruction, or modification on or before July 17, 2014, and has accepted waste at any time since November 8, 1987. The MSW landfill has a design capacity greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters, but actual NMOC emissions based upon an established Tier 2 value in the landfill calculation are less than 34 Mg per year. This emission unit is subject to the requirements of 40 CFR Part 62, Subpart OOO

**I. Emission Limits:**

There are no Emission Limits applicable for EULANDFILL<34.

**II. Material Limits:**

There are no Material Limits applicable for EULANDFILL<34.

**III. Process/Operational Restrictions:**

There are no Process/Operational Restrictions applicable for EULANDFILL<34.

**IV. Design/Equipment Parameters:**

There are no Design/Equipment Parameters applicable for EULANDFILL<34.

**V. Testing/Sampling:**

The facility completed Tier 2 NMOC Testing September 27, 2021 in accordance with the revised Landfill NESHAP pursuant to 40 CFR part 63, Subpart AAAAA, the Federal Plan pursuant to 40 CFR Part 62, and Method 25C of 40 CFR 60 Appendix A. Tier 2 is completed every 5 years, and the next test will be in the year 2026. Based on review of the Test Report NMOC emissions rate was calculated at 22.26 Mg/yr. This was below the 34 Mg/year. Calculations indicate the NMOC rate will not exceed 34 Mg/yr prior to September 2026.

**VI. Monitoring/Recordkeeping:**

The facility is required to keep records of their design capacity and monitor and record the current amount of solid waste in-place and the year-by-year acceptance rates. AQD reviewed these records. The facility has no changes to their design capacity.

Additionally, the facility calculates the NMOC emission rates on an annual basis to confirm the NMOC emission rates are below 34 Mg/yr to maintain Tier 2 status for the landfill.

**VII. Reporting:**

The semi-annual reports and annual compliance reports for ROP certification were submitted to AQD in a timely manner. During the reporting period the permittee reported all monitoring and associated recordkeeping requirements. No deviations associated with EULANDFILL<34 have been reported to AQD.

**VIII. Stack/Vent Restrictions:**

Stack/Vent Restrictions are not applicable for EULANDFILL<34.

**IX. Other Requirements:**

The facility is below the 34 Mg/yr NMOC emission rate and is not required at this time to install a capture and control system in accordance with 40 CFR 62.16714(b) and (c) or conduct a surface emission monitoring demonstration using Tier 4 procedures. The facility appears to comply with the Federal Plan requirements for Municipal Solid Waste Landfills as specified in 40 CFR Part 62, Subpart OOO.

**EUASBESTOS:** This emission unit represents any active or inactive area within the landfill which has accepted asbestos waste.

**I. Emission Limits:**

There are no Emission Limits applicable for EUASBESTOS.

**II. Material Limits:**

There are no Material Limits applicable for EUASBESTOS.

**III. Process/Operational Restrictions:**

This facility takes in asbestos waste as defined by 40 CFR 61 Subpart M. AQD observed no visible emissions during the inspection, and the facility has opted to cover any asbestos containing material with at least 6 inches of compacted non-asbestos containing material immediately, so human exposure is not a concern. The landfill contains fencing with warning signs on it, around the perimeter. The facility is in a rural area and there is a natural barrier along with the fencing that deters the general public from entering.

**IV. Design/Equipment Parameters:**

All asbestos containing material cells buried in the landfill are surveyed and mapped and have been/will be excluded from placement of gas collection systems. Currently the gas collection system at the facility is active with some of the gas being flared and the rest being used as fuel in leachate evaporators.

**V. Testing/Sampling:**

Testing/Sampling is not applicable for EUASBESTOS.

**VI. Monitoring/Recordkeeping:**

Shipment records with names, address, and telephone numbers of the waste generators and transporters were reviewed. Each shipment record had the associated GPS location and depth buried, which corresponded with a map of the facility and the buried asbestos locations identified.

EGLE reviewed the records indicating the locations, depth of area, and quantity of asbestos material received by the landfill from June 1, 2023 through May 31, 2024.

**VII. Reporting:**

The semi-annual reports and annual compliance reports for ROP certification were submitted to AQD in a timely manner. During the reporting period the permittee reported all monitoring and associated recordkeeping requirements. No deviations associated with EUASBESTOS have been reported to AQD.

**VIII. Stack/Vent Restrictions:**

Stack/Vent Restrictions are not applicable for EUASBESTOS.

**IX. Other Requirements:**

There are no Other Requirements applicable for EUASBESTOS.

**FGCOLDCLEANERS:** This flexible group includes any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(2)(h) or Rule 285(2)(r)(iv), existing cold cleaners that were placed into operation prior to July 1, 1979, and new cold cleaners that were placed into operation on or after July 1, 1979. There is one cold cleaner in the maintenance garage at the facility. This cold cleaner is serviced by Safety Kleen. It was closed at the time of the inspection and is marked with the operating procedures. A 148-degree flash point solvent is used.

**FGRULE290:** This flexible group is for emission units that are exempt from the requirements of Rule 201 pursuant to Rule 290. This includes emissions from the evaporation of leachate (not fuel combustion). The Leachate system is exempt under Rule 285(aa).

**I. Emission Limits:**

EUEVAPORATOR emissions are determined through annual calculations submitted with the Annual Emissions Report. NMOC emissions were below the permitted 1000 pounds per month uncontrolled emission rate required by Rule 290.

There are no applicable **Material Limits, Process/Operational Restrictions, Design/Equipment Parameters, Testing/Sampling, Stack/Vent Restrictions** or **Other Requirements** for FGRULE290.

**VI. MONITORING/RECORDKEEPING:**

EUEVAPORATOR emission calculations are based on air flow, operating hours, landfill gas lower heating value (LHV) and emission factors.

**VII. Reporting:**

The semi-annual reports and annual compliance reports for ROP certification were submitted to AQD in a timely manner. During the reporting period the permittee reported all monitoring and associated recordkeeping requirements. No deviations associated with FGRULE290 have been reported to AQD.

NAME Camp Owens

DATE 11-4-24

SUPERVISOR Shane Nixon