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

N386263535

FACILITY: WEXFORD COUNTY LANDFILL		**SRN / ID:** N3862
LOCATION: 990 North Mackinaw Trail, MANTON		**DISTRICT:** Cadillac
CITY: MANTON		**COUNTY:** WEXFORD
CONTACT: Steve Kniss , General Manager		**ACTIVITY DATE:** 06/29/2022
STAFF: Rob Dickman	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection of this major source.		
RESOLVED COMPLAINTS:		

Wexford County Landfill is classified as a Type II sanitary landfill, which is also known as a Municipal Solid Waste (MSW) Landfill. The landfill received a volume expansion permit in April of 2000, and another in August of 2012. It has maximum design capacity of 3.45 million megagrams.

The facility accepts municipal solid waste (MSW), inert wastes, and a minimal amount of asbestos containing waste. The MSW is transported to the facility to an area (cell) where it is deposited on the working surface. The deposited waste is covered with soil daily. When a cell reaches its design capacity, a liner is installed to cover the waste. Over time, the waste decomposes producing landfill gas (LFG). The LFG is comprised of methane, carbon dioxide, carbon monoxide, and volatile organic compounds (VOCs). MSW initially undergoes aerobic microbial activity producing predominately nitrogen gas and carbon dioxide. As oxygen levels decline, gas composition changes to a mixture of methane and carbon dioxide. LFG typically contains a small percentage of non-methane organic compounds (NMOC). The NMOC fraction consists of various organic hazardous air pollutants (HAPs), greenhouse gases, and volatile organic compounds (VOCs).

Landfill gas is collected at Wexford County Landfill by an active gas collection and control system (GCCS). This system consists of vertical extraction wells that are installed in the depths of the landfill refuse and which remove landfill gas by vacuum that is applied to the well from the blower. The collected landfill gas is then routed to a flare where is it combusted.

This facility is currently subject to the following federal standards:

- Emission Guidelines for existing Municipal Solid Waste Landfills promulgated under 40 CFR 60, Subparts A and Cf
- Federal Plan Requirements for Existing Municipal Solid Waste Landfills promulgated in 40 CFR 62, Subpart OOO. This Federal Plan will apply until a State Plan is approved or delegation of the Federal Plan is approved.
- National Emission Standard for Hazardous Air Pollutants (NESHAP) for Asbestos promulgated in 40 CFR 611, Subparts A and M

The facility Renewable Operating Permit (ROP) number MI-ROP-N3862-2017 is currently in the renewal process and will be modified to reflect these requirements.

The landfill is required to calculate the non-methane organic compound (NMOC) emission rate and submit non-methane organic compound (NMOC) emission rate reports. The purpose of these reports is to determine whether the facility is required to install an active Gas Collection and Control System (GCCS). To require a GCCS under 40 CFR 62 Subpart OOO, the annual NMOC emission rate must exceed 34 megagrams (Mg). Once the NMOC estimated emission rate exceeds 34 Mg per year, the Landfill will have 12 months to submit a landfill GCCS design plan. In March of 2022, Wexford Landfill completed testing for NMOC. This testing demonstrated NMOC emissions that were lower than 34 Mg per year. However, the facility has voluntarily installed a GCCS.

I performed an inspection at this facility to determine Wexford County Landfill's compliance with the abovementioned requirements and the requirements of ROP number MI-ROP-N3862-2017. Following are the findings of this inspection.

EULANDFILL - This emission unit is the landfill. This landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. Additionally, the landfill has received a volume expansion (increased the design capacity) permit from the Department of Environmental Quality, since May 30, 1991. A GCCS was installed voluntarily by the facility and is controlled by a flare.

Emissions Limits

NA

Material Limits

NA

Process or Operational Restrictions

NA

Design or Equipment Parameters

NA

Testing or Sampling

The facility has performed Tier 2 testing to determined annual NMOC emissions. Tier 2 testing was performed in March of 2022. NMOC emissions at that time were 32.33 Mg per year. A review of this testing has been previously performed and documented by AQD staff. The facility is planning on performing this testing again in 2023 presumably because NMOC emissions are approaching the regulatory threshold of 34 Mg per year.

Monitoring and Recordkeeping

The facility is required to keep on-site records of the design capacity report, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. According to Tier 2 reporting in 2022 the current waste in place for waste not controlled by the GCCS for 2021 was 926,013 Mg. The current acceptance rate is 1100-1300 tons per day and 177,122 Mg for the year 2021. The design capacity for the facility has not changed since 2012 and is 3.45 million megagrams.

The facility is required to calculate the annual NMOC emission rate using the most recent version of USEPA's Landfill Gas Emissions Model (LandGEM). Actual Tier 2 testing for NMOC emissions was performed in 2022 and demonstrated emissions of 32.33 Mg/yr.

Reporting

All semi-annual and annual deviation reporting has been reported, reviewed, and documented by AQD staff.

The facility is required to submit an annual NMOC emission rate report or 5-year estimate of the NMOC emission rate to the District Supervisor. This reporting has been performed and has been previously reviewed by AQD Staff.

The facility is required to notify the Department of any testing being performed at the facility per department guidelines. Testing performed at the facility was completed in March of 2022. All required notifications were submitted in a timely manner.

Stack and Vent Restrictions

NA

Other Requirements

If the NMOC emission rate is calculated to be equal to or greater than 34 megagrams per year, the facility is required to install a collection and control system. As of the 2022 Tier 2 testing, the facility NMOC emissions were below this threshold. This testing is planned to be performed again in 2023.

EUASBESTOS - This emission unit represents any active or inactive area within the landfill which has accepted asbestos waste. This unit is subject to 40 CFR Part 61, Subparts A and M.

Emissions Limits

There are no air emission limits associated with this emission unit.

Material Limits

There are no material limits associated with this emission unit.

Process or Operational Restrictions

The facility must deter the general public from accessing an asbestos disposal site either through a natural or installed barrier. The rugged terrain, entry security, and relative remote location serve as adequate barriers to the public.

There are procedural options in Subpart M regarding how a facility handles asbestos waste, all of which are meant to minimize the possibility of human exposure. Following is the procedure this facility employs:

- A manifest for the material is supplied to the facility no earlier than 24 hours prior to arrival of the material.
- A designated, surveyed area away from the active working face is prepared for this waste.
- Upon acceptance, the waste is placed in the prepared area.
- It is covered with acceptable material as soon as practical, typically immediately upon placement.
- This location, which has been surveyed for latitude, longitude, and depth, is recorded on a map of the landfill such that it will not be accidentally disturbed during placement of gas collection and ventilation equipment.

This procedure is compliant with the Subpart.

Design or Equipment Parameters

The facility must ensure the no gas collection equipment placement disturbs and placed asbestos waste. As stated in the procedure above, placement of this waste is surveyed and mapped such that this possibility can be avoided.

Testing or Sampling

NA

Monitoring and Recordkeeping

Manifests received at the facility are required to contain certain information including basic information on the generator, hauler, the type of waste it is, and how it is contained. A random review of three manifests (dated 5/17/22, 2/23/22, and 1/25/22) indicted that these records are being completed correctly. As of the date of the inspection, approximately 25 loads of material had been received for a total of 435 yards in 2022.

The facility is required to keep records of essentially any times they deviate from their procedures for handling asbestos waste including undocumented or unsecure waste, or disturbances of placed waste. There were no records indicating any time in the last 12 months where there was a deviation in their handling procedures.

Reporting

The facility is required to report any time they deviate from their procedures for handling asbestos waste. There were no records indicating any time in the last 12 months where there was a deviation in their handling procedures. Therefore, no reporting has been received.

Stack and Vent Restrictions

NA

Other Requirements

The facility is required to comply with 40 CFR 61, Subparts A and H. By complying with the conditions listed in the EUASBESTOS section of the ROP, the facility is demonstrating compliance with the Subparts.

Other items:

- The facility indicated Tier 2 testing would be performed in 2023, presumably as the results of the 2022 testing were approaching the federal NMOC emissions threshold for 40 CFR 62, Subpart OOO of 34 Mg/year.
- Improvements continue to be made to the facility GCCS.

- Formation of a citizens committee to discuss landfill issues is being pursued and encouraged by the facility.
- The handling of oil field waste, which is primarily frac tank bottoms and often has strong odor, is continuing to be improved to minimize off site odors.
- This facility was permitted for and installed a deep injection well for leachate disposal in 2018. Since this installation, leachate is no longer trucked or evaporated.
- It was noted during the final compliance evaluation that the first half deviation report for 2021 had not been logged in to MACES. A copy of this reporting was requested and was received on August 2, 2022. The associated transmittal letter indicates the report was sent on September 2, 2021 and would have been due 9/15/21. The report itself indicated a fresh signature by the Responsible Official and a 7/25/22 date. A review of this reporting was performed and no deviations were noted which is typical for this source. It is undetermined if the facility submitted this report on the date of the reporting. The facility has no history of absent or late reporting. As no deviations were reported, no further action on this matter is recommended.

No other compliance issues were noted.

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