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

N603962069

FACILITY: K & W LANDFILL INC		**SRN / ID:** N6039
LOCATION: 11877 HIGHWAY M-38, ONTONAGON		**DISTRICT:** Marquette
CITY: ONTONAGON		**COUNTY:** ONTONAGON
CONTACT: Clayton Hella , Manager		**ACTIVITY DATE:** 02/24/2022
STAFF: Lauren Luce	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: On-site inspection to verify compliance with MI-ROP-N6039-2017 and all other applicable state and federal air quality regulations.		
RESOLVED COMPLAINTS:		

Facility: K&W Landfill (SRN: N6039)

Location: 11877 State Highway M-38, Ontonagon County, MI, 49953

Contact(s): Clayton Hella, District Manager; Madeline Schwerinski, Environmental Engineer

Regulatory Authority

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

Facility Description

K&W Landfill is located on State Highway M-38 nearest the community of Greenland in Ontonagon County. The area surrounding the landfill is rural and wooded. The area with the highest concentration of residential dwellings is located approximately one mile to the east of the landfill in Greenland.

K&W Landfill is owned and operated by Waste Management (WM). K&W Landfill is a Type II Municipal Solid Waste (MSW) landfill that has been actively accepting waste since 1992. The landfill accepts sludge, asbestos containing material (ACM) waste, fly ash, industrial waste, miscellaneous solids, and municipal household waste.

Process Description

A landfill consists of an area of land or an excavation in which wastes are placed for permanent disposal. The process begins with collected waste being transported to the landfill where it is dumped into an area (cell). A synthetic liner, such as high-density polyethylene, is used at the bottom to prevent contamination of leachate and landfill gas with ground water and soil. Heavy equipment then spreads the waste, compacts it, covers the waste with soil or alternate daily cover materials (ADCM), and further compacts it on a daily basis. When a cell is full, it is covered permanently with a liner cap and compacted soil.

Emissions

Landfill gas is generated through bacterial decomposition of organic materials contained in solid waste. Initially, decomposition is aerobic until the oxygen supply is exhausted. With the solid waste being insulated from the atmosphere, decomposition then occurs anaerobically producing most of the landfill gas. Landfill gas (LFG) consists of 50% methane, 50% carbon dioxide, and less than 1% non-methane organic compounds (NMOC). The NMOC fraction consists of various organic hazardous air pollutants (HAP), greenhouse gases, and volatile organic compounds (VOC).

LFG can be collected through one of two methods: active and passive gas collection systems. K&W Landfill utilizes a passive system that relies on the pressure gradient created by the generation of LFG in the cells. Pipes in the cells collect the gas and move it from an area of high pressure to low pressure where it is emitted to the atmosphere through vents. There are 29 vents and 4 flares at K&W Landfill.

Emissions Reporting

K&W Landfill is required to report is annual emissions to Michigan Air Emissions Reporting System (MAERS). The following table lists the source total emissions for the reporting year 2020.

Pollutant	Emissions (TPY)
CO	1.97
PM 10 FLTRBL	<1
PM 2.5 FLTRBL	<1
NMOC	1.03
VOC	<1

Regulatory Analysis

The facility is subject to the New Source Performance Standards for Municipal Solid Waste Landfills promulgated in Title 40 of the Code of Federal Regulations (CFR), Part 60, Subparts A and WWW. The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because its design capacity exceeds 2.5 million Mg and 2.5 million cubic meters; however, no pollution control equipment is required at this time because actual NMOC emissions are less than 50 Mg/year. In May 2021, the facility became subject to 40 CFR Part 62, Subpart OOO which replaced obsolete 40 CFR Part 60, Subpart WWW applicable requirements.

The facility is a minor source of HAP emissions because the potential to emit of any single HAP regulated by the federal Clean Air Act, Section 112, is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

No emissions units at the facility are currently subject to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of carbon monoxide was less than 100 tons per year.

The facility is subject to the asbestos regulations found in 40 CFR 61.154, because the facility accepts asbestos containing waste

Compliance History

The facility received violation notice in September 2020 for a reporting related violation. The violation was resolved quickly. The facility was last inspected in March 2020 and was found to be in compliance with all applicable air quality rules and federal regulations at that time.

Inspection

On February 24, 2022, I conducted an announced inspection of K&W Landfill. I arrived at the office building and met with District Manager, Clayton Hella and Environmental Engineer, Madeline Schwerinski. It was explained to Mr. Hella and Ms. Schwerinski that the purpose of the inspection was to ensure compliance with MI-ROP-N6039-2017 and all other applicable air pollution control rules and federal regulations. The inspection began with Mr. Hella providing a tour of the landfill. Next, Mr. Hella and Ms. Schwerinski provided an overview of the landfill, detailing maps, and providing the status of the current cells. Records were provided for the landfill and asbestos information.

EULANDFILL<50

K&W Landfill is required to conduct Tier 2 or Tier 3 testing for NMOC emissions. This testing is to be performed every five years. The source performs Tier 2 testing and conducted the most recent test in June 2021. Previous testing was conducted in December 2015 and was due again in December 2020. However, testing was not performed until June 2021. This was discussed at the inspection. Next Tier 2 testing is due in June 2026. At the June 2021 Tier 2 testing, the site specific NMOC concentration as hexane was determined to be 16.9 parts-per-million by volume (ppmv) with an emission rate of 1.02 Mg/year (2020). Due to an NMOC emission rate of less than 50 Mg/year, K&W Landfill is not required to implement a landfill gas control/collection system

As required under Special Condition VI.1, K&W Landfill keeps records of the design capacity for the facility. A 2021 report was provided. The total permitted capacity is 4,839,650 cubic yards. K&W Landfill is also required to monitor and record the amount of waste brought in on a year-by-year basis. For 2021, the facility received 91,535.58 tons.

The facility has submitted their annual NMOC emission report with their annual certification of compliance for MI-ROP-N6039-2017.

EUASBESTOS

During the tour of the landfill, signs were observed along the access road and at the office building that stated "asbestos disposal site" and warnings related to asbestos. Mr. Hella and Ms. Schwerinski provided an updated Asbestos Disposal Locations map that provides information on each asbestos shipment received with the point number, date, and elevation of where that shipment is deposited in the landfill. Before a shipment is received, a minimum 24-hour notice is provided that asbestos material will be incoming.

K&W Landfill keeps records of the name, address, and phone number of the waste generator and transporter for each shipment received on the *Waste Shipment Record/Asbestos Manifest* reports. The quantity of the asbestos-containing waste material is also recorded. Also provided on the record sheet, is the latitude, longitude, and elevation of the disposal site for asbestos material. There have been no records of request to disturb placed asbestos waste.

Miscellaneous

At the time of the inspection, no fugitive dust emissions were observed due to winter conditions. K&W Landfill is currently operating in cell 5. This cell became active in May 2021. Cells 3 and 4 have a temporary cap. The facility plans to cap 10 acres in Summer 2022.

Compliance

Based on this inspection, K&W Landfill is in compliance with MI-ROP-N6039-2017 and all other applicable regulations.

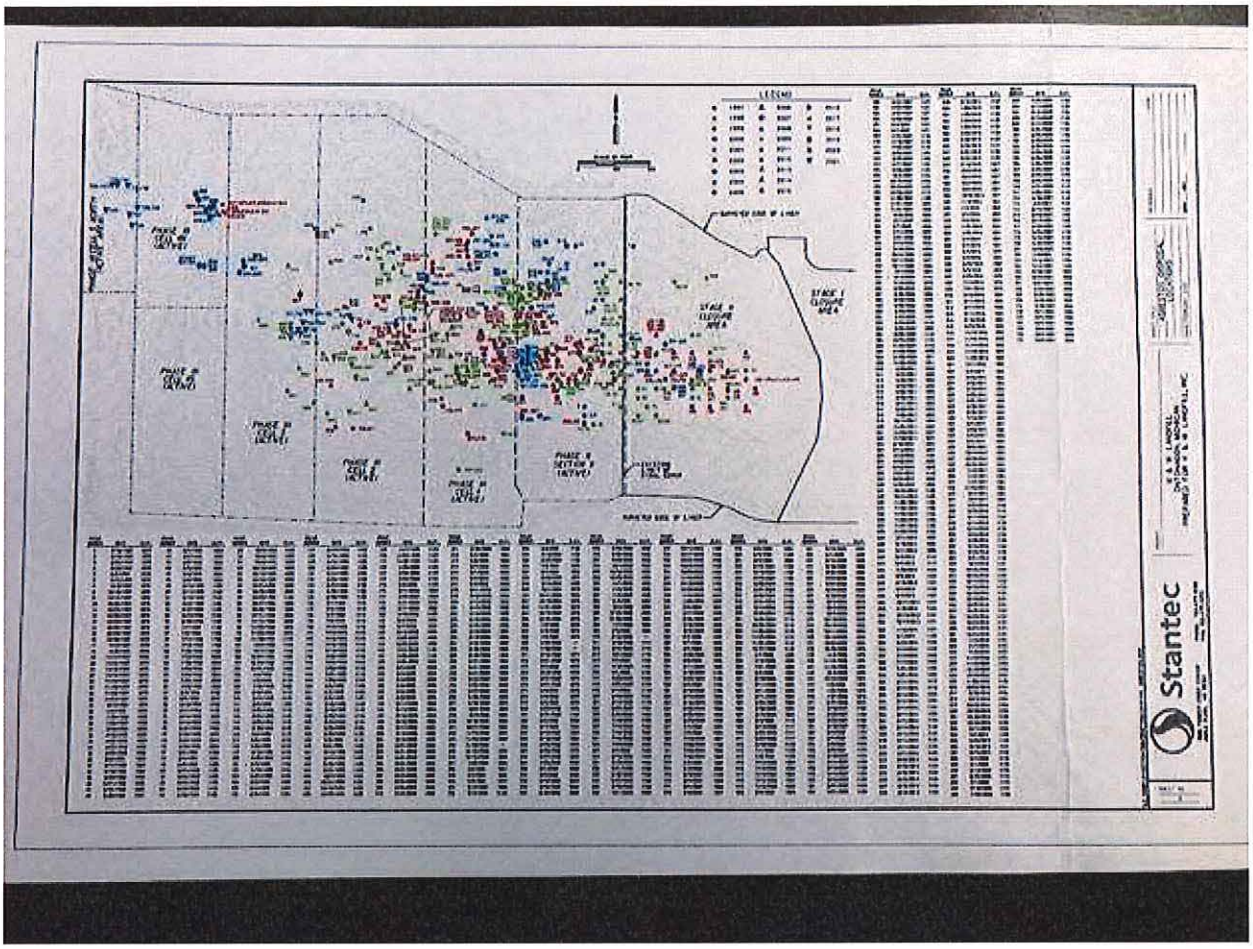

Image (1): Asbestos map information.

NAME _____ DATE 3/9/22 SUPERVISOR _____