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

N603362324

FACILITY: DAFTER SANITARY LANDFILL INC		**SRN / ID:** N6033
LOCATION: 3962 W 12 MILE ROAD, DAFTER		**DISTRICT:** Marquette
CITY: DAFTER		**COUNTY:** CHIPPEWA
CONTACT: TIM HARROW , SITE MANAGER		**ACTIVITY DATE:** 03/08/2022
STAFF: Lauren Luce	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Targeted Inspection FY22		
RESOLVED COMPLAINTS:		

Facility: Dafter Sanitary Landfill (SRN: N6033)

Location: 3962 W. 12 Mile Road, Dafter, MI 49724

Contact(s): Tim Harrow, Site Manager

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

Dafter Sanitary Landfill (DSL) is a municipal solid waste landfill that is owned and operated by Green for Life, Inc. (GFL). GFL is a diversified environmental services company in North America offering services in solid waste management, liquid waste management, and infrastructure development.

DSL is located at 3962 West 12 Mile Road, Dafter, Michigan, a rural area in Chippewa County that is currently in attainment for all criteria pollutants. The landfill is situated approximately two miles southwest of Dafter and is in a relatively flat area surrounded by forests and agricultural land. The source is categorized as a Type II landfill and currently has a design capacity greater than 2.5 million cubic meters. DSL accepts asbestos, biosolids, demolition debris, industrial waste, municipal waste, and naturally occurring radioactive material. As a Type II Landfill, DSL is not allowed to accept hazardous waste. DSL has been accepting waste since 1981.

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. DSL 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 31 vents and 11 flares at DSL.

Emissions Reporting

DSL is required to report its 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	1.2
PM 10 FLTRBL	<1
PM 2.5 FLTRBL	<1
NMOC	<1
VOC	<1

Regulatory Analysis

The facility was 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. However, in May 2021, 40 CFR Part 62, Subpart OOO became effective and replaced the requirements of 40 CFR Part 60, Subpart WWW. In addition, 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.

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 a violation notice in September 2020 for failure to submit semi-annual ROP certification reports in a timely manner. The violation was resolved quickly. The facility was last inspected in January 2020 and was found to be in compliance with all applicable air quality rules and federal regulations at that time.

Inspection

On March 8, 2022, I conducted an unannounced inspection of DSL. I arrived at the office building and met with Site Manager, Tim Harrow. It was explained to Mr. Harrow that the purpose of the inspection was to ensure compliance with MI-ROP-N6033-2020 and all other applicable air pollution control rules and federal regulations. Mr. Harrow 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. Mr. Harrow then provided a tour of the landfill.

EULANDFILL

DSL 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 on November 13, 2019. The 2019 Tier 2 testing established a site-specific NMOC concentration of 6.3 parts per million by volume (ppmv) as hexane, with an emission rate of 0.29 Mg/year. The projected annual NMOC emission rate was calculated as 0.29 Mg/year in the year 2025, assuming an annual average waste acceptance rate remains relatively constant. With DSL having an annual NMOC emission rate of less than 50 Mg/year, the source is not subject to the National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills promulgated in 40 CFR Part 63, Subparts A and AAAA, and is not required to install a landfill gas collection/control system.

As required under Special Condition VI.1, DSL keeps records of the design capacity for the facility. The total permitted capacity is 5,312,800 cubic yards. DSL is also required to monitor and record the amount of waste brought in on a year-by-year basis. For 2021, the facility received 60,431.45 tons.

The facility has submitted their annual NMOC emission report with their annual certification of compliance for MI-ROP-N6033-2020. For 2020, the NMOC emission rate from the landfill was 0.28Mg/yr.

EUASBESTOS

Upon entering the facility and during the tour, it was observed the perimeter of the landfill was completely fenced. Signs at the entrance state that the facility actively accepts asbestos material. During the tour of the landfill, asbestos warning signs were observed along the perimeter. Mr. Harrow 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.

DSL 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. A receipt is provided to the generator of the waste. 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. There are five cells (A,B,C,D,E) at DSL. A and B are inactive. DSL is currently operating in cell E. Cell B will be capped in the future. Construction of a new cell is currently out for bid.

DSL has a 300,000-gallon leachate storage tank for collected leachate prior to recirculation into the landfill or transported to a municipal wastewater treatment plant. The landfill also has 11 self -igniting flares on existing vents. Though the NSPS for landfills does not require DSL to utilize gas collection and flaring, DSL installed gas collection and flaring systems to aid in odor control. Both the leachate storage tank and the LFG flaring are considered exempt under Michigan Air Pollution Control Rule 336.1285(2)(aa).

<u>Compliance</u>

Based on this inspection, Dafter Sanitary Landfill is in compliance with MI-ROP-N6033-2020 and all other applicable regulations.

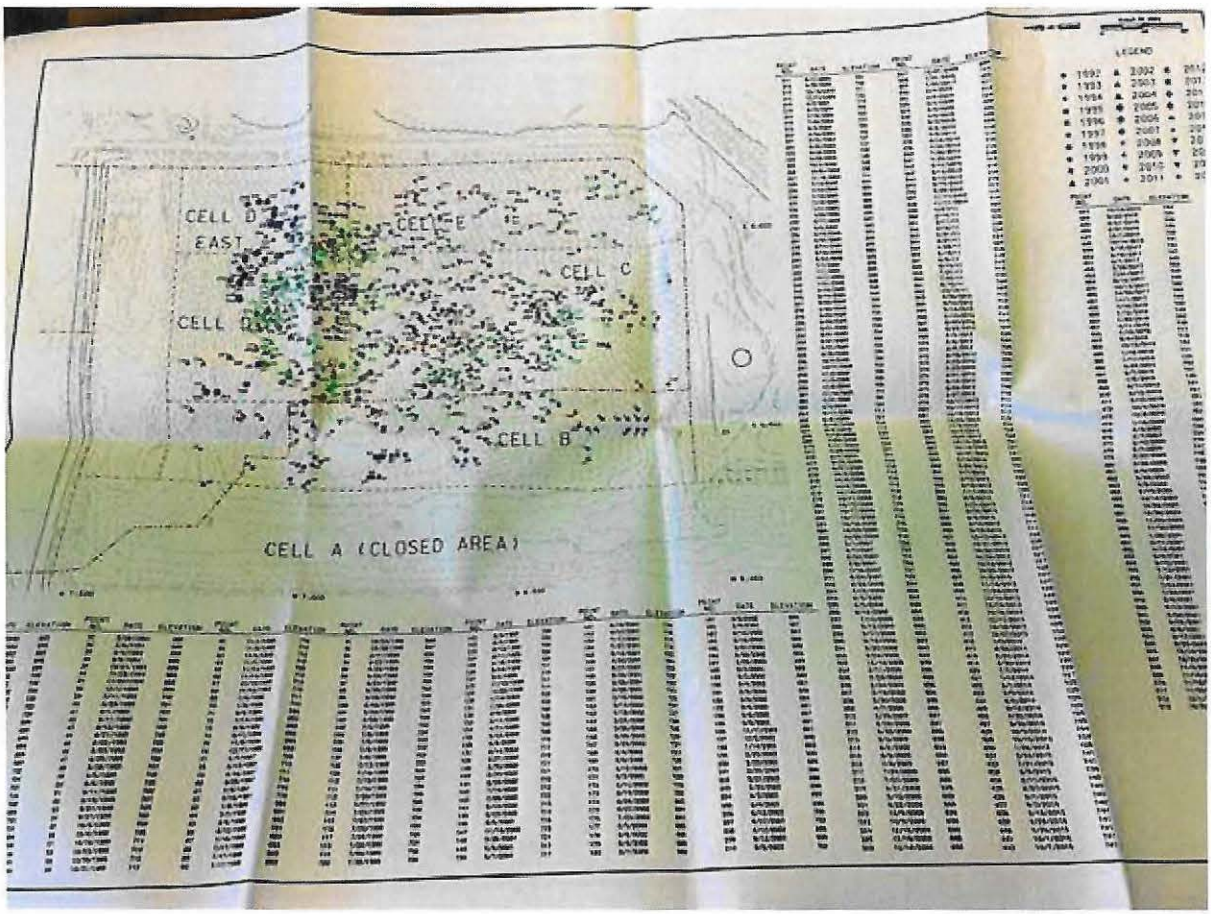

Image (1): Asbestos map information.

NAME _____ DATE 3/28/22 SUPERVISOR _____