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

N601069756

FACILITY: Northern Oaks Recycling and Disposal Facility		**SRN / ID:** N6010
LOCATION: 513 N. County Farm Road, HARRISON		**DISTRICT:** Bay City
CITY: HARRISON		**COUNTY:** CLARE
CONTACT: Keith Hayes , Gas Plant Operator		**ACTIVITY DATE:** 10/31/2023
STAFF: Gina McCann	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: MI-ROP-N601-2018 inspection		
RESOLVED COMPLAINTS:		

I (glm) conducted an announced inspection of Northern Oaks RDF. At the time of the inspection the facility was in compliance with MI-ROP-N6010-2018.

Northern Oaks is a Type II municipal solid waste landfill which is owned and operated by Waste Management of Michigan, Inc. The landfill accepts municipal and solid waste, construction debris, foundry sand, ash and contaminated soils. Northern Oaks was reissued Renewable Operating Permit (ROP) number MI-ROP-N6010-2018 on August 6, 2018. I met with Nicole Iutzi-Kubista, Site Engineer and Keith Hayes, WM Operations Manager. We toured the landfill including the flare, leachate evaporator, & gas to energy plant. Prior to visiting the facility, records were requested. Debbie Johnston uploaded documents to OneDrive on November 1, 2023. Before entering the facility, an offsite odor survey was conducted. No odors were detected.

EULANDFILL<50: Compliant

The landfill began accepting waste in December of 1992. The Maximum Design Capacity is 8.9 million cubic meters. The landfill is subject to Part 62 Subpart OOO requirements applicable to a landfill with NMOC emission rate of less than 34 megagrams per year and a maximum design capacity of 2.5 million Mg. The last Tier II test was completed on August 30, 2021. Results measured 150.13 ppm NMOC as hexane or 12.5 Mg/year. MAERS reported NMOC emissions were 1.85 tons for the year 2022. Northern Oaks currently has 5,800,000 cubic yards of solid waste in place. During the year 2021, 253,071 tons were accepted. For the year 2022, 192,737 tons were accepted. During the inspection, the flare was not operating. The following measurements were observed, flow to engine was 461 scfm. MAERS reported total volume through the flare for 2022 was 116.22 MMCF. The flare is monitored and recorded using a computer-based system. In the event of improper operating conditions, an alarm is triggered, and an automated phone call is placed to an assigned employee. On the day of the inspection, the facility was operating their leachate evaporator. Observed flow rate to the evaporator was 251 scfm. Emissions from the unit had a metallic odor and a noticeable opacity at ground level. The leachate evaporator is scheduled for replacement in 2024. The unit has the capacity to operate at 600 scfm landfill gas with a flow of 30,000 gpd leachate. MAERS reported total volume through the evaporator for 2022 was 186.96 MMCF. The facility has an approved MAP, approved on September 8, 2010.

FGCOLDCLEANERS: N/A

The facility no longer owns and operates a cold cleaner. During the inspection it was verified the cold cleaner is no longer on site. The cold cleaner was removed on

August 6, 2020 and returned to Safety Kleen. This flexible group is proposed to be removed from the ROP currently being renewed.

EUASBESTOS: Compliant

Asbestos records and placement tracking were reviewed. A site map is maintained displaying the location of each asbestos deposit. Loads are given a designated code which is displayed on the map and corresponding information is recorded in an asbestos receipt grid placement log. Records are maintained for facility generator and delivery information of each asbestos shipment. Prior to excavation, asbestos records are reviewed to ensure no buried asbestos is disturbed. The company owns a large amount of the land surrounding the landfill which serves as a natural barrier.

EUICENGINE1: Compliant

The Department received a replacement, a.k.a. engine swap out, notice on July 14, 2016 in accordance with the Division's landfill engine policy. The new engine replaced a CAT 3520 engine that was installed on November 11, 2010. The engine was swapped out for an overhaul maintenance to be conducted at an offsite location. Per the engine plate ID, the new serial number is GZJ00666 and the engine had 1,051 hours of operation at installation. Currently, this engine has 42,956 hours.

Landfill gas is sent first to power the leachate evaporator, second to the LFG generator and any remaining gas is sent to the flare. On the day of the inspection, landfill gas was being used to power the leachate evaporator. The internal combustion reciprocating engine is capable of combusting 600 cfm. The engine is subject to NSPS Subpart JJJJ and the NESHAP ZZZZ (RICE). The engine was tested on December 12, 2022 and shown to be in compliance with emission limits. A copy of the stack test observation report is on file. Maintenance records are maintained and stored electronically. Engine fuel usage for the year 2022 was 137.17 MCF.

The engine had some blue smoke coming from it. We determined it was coming from a separate vent associated with the crankcase emissions. This issue has been brought up statewide. Permit section did not include this vent/stack in the permit and therefore the emissions were likely unaccounted for. Preliminary PM calculations suggest emissions would be 0.004 tons PM/year and insignificant. The opacity from the vent was more of the concern as it may not meet General Condition 11 from the ROP. A Method 9 was not performed and further conversation with the facility is needed to determine a path forward.

NAME _____ DATE 11/3/2023 SUPERVISOR _____