

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N603952796

FACILITY: K & W LANDFILL INC		SRN / ID: N6039
LOCATION: 11877 HIGHWAY M-38, ONTONAGON		DISTRICT: Upper Peninsula
CITY: ONTONAGON		COUNTY: ONTONAGON
CONTACT: Clayton Hella , Manager		ACTIVITY DATE: 03/10/2020
STAFF: Sydney Bruestle	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Onsite Inspection to verify compliance with MI-ROP-N6039-2017 and all other applicable state and federal air quality regulations.		
RESOLVED COMPLAINTS:		

On March 10, 2020 I (Sydney Bruestle) performed an onsite inspection of K & W Landfill, Inc. located at 11877 Highway M-38, Ontonagon, Michigan. While onsite I worked with Clayton Hella, Operations Manager. Mr. Hella provided me with all records required by MI-ROP-N6039-2017, 40 CFR Part 60, Subpart WWW, and 40 CFR Part 61 Subpart M.

#### Facility Description

K&W Landfill (Facility) is owned and operated by K&W Landfill, Inc., a subsidiary of Waste Management of Michigan, Inc.

K&W Landfill is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) landfill. A MSW landfill or a Type II landfill according to Part 115, Solid Waste Management, of Act 451, is:

"A landfill which receives household waste, municipal solid waste incinerator ash or sewage sludge and which is not a land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill also may receive other types of solid waste, such as commercial waste, non-hazardous sludge, conditionally exempt small quantity generator waste, and industrial waste. Such a landfill may be publicly or privately owned."

K&W Landfill was initially permitted in 1988 and began accepting waste in 1992. The Facility currently accepts sludge, asbestos containing wastes, fly ash, industrial waste, and miscellaneous solids, along with municipal household waste. Natural biological processes occurring in landfills transform the waste's constituents (above listed wastes) producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas consists mainly of methane, carbon dioxide, and non-methane organic compounds (NMOC). NMOC is the primary regulated air pollutant associated with landfill gas generation.

Landfill gas from the Facility is collected through a passive gas collection system consisting of 29 vents with four active flares. The vent wells rely on positive pressure created by the Facility to move gas rather than mechanical equipment. The requirements of this system can be found in Table EULANDFILL<50.

The Facility operates a 500,000-gallon leachate storage tank from which leachate is circulated back into the landfill or transported and treated at a wastewater treatment plant to minimize liquid levels in the landfill cells. The leachate and associated storage tanks are exempt from inclusion into the ROP under Rule 212(3)(f)). With estimated potential VOC emissions of 0.05 tons per year, the leachate is considered a non-VOC containing liquid however these emissions are still reported to the Michigan Air Emissions Reporting System (MAERS).

PM10 and PM2.5 fugitive dust emissions resulting from waste transport vehicles are annually reported to MAERS using AP-42 equations.

#### Regulatory Analysis

The stationary source is in Ontonagon County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source 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.

The stationary source 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 stationary source 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.

Recently finalized Emission Guidelines (40 CFR Part 60, Subpart Cf) which replace the existing Emission Guidelines (40 CFR Part 60, Subpart Cc) will be applicable to K&W Landfill once Michigan's State Plan has been approved by the USEPA. The 50 Mg/year NMOC threshold which triggers installation of a landfill gas collection and control system (GCCS) has been lowered to 34 Mg/year for all existing active landfills. Currently the 50 Mg/year NMOC threshold is applicable; however, the Facility will be subject to the lowered NMOC threshold of 34 Mg/year once USEPA has approved state EG Rules. The NMOC threshold addressed in the following paragraphs will be 50 Mg/year as this is the existing threshold at the time of my inspection.

The current passive system and future active system can be operated by the Facility until 30 months after the Facility's actual NMOC emissions reach 50 Mg/year. When Tier 1 calculations show NMOC emissions > 50 Mg/year, the Facility has the option of either installing their active GCCS within 30 months or conducting Tier 2 (60.754(a)(3)) and/or Tier 3 (60.754(a)(4)) testing within 6 and 12 months, respectively. Tier 2 testing determines a site-specific NMOC concentration and Tier 3 testing determines a site-specific methane generation rate. If Tier 2 and/or Tier 3 NMOC emissions are < 50 Mg/year, the Facility resumes annual submittal of NMOC emission rate reports (using Tier 2 or 3 data) until either calculation shows NMOC > 50 Mg/year, triggering installation of a GCCS, or they permanently close. Based on the most recent Tier 2 testing that was completed in 2015, current Facility NMOC emissions are approximately 1.36 Mg/year.

When the Facility's NMOC emissions are equal to or greater than 50 Mg/year, the Facility has 12 months to submit an approvable landfill gas collection and control design plan that satisfies the requirements of NSPS, Subpart WWW. In the future the facility may be subject to 40 CFR, Part 60, Subparts A and XXX if they expand the landfill capacity.

The Facility is subject to the asbestos regulations found in 40 CFR 61.154, because the Facility accepts asbestos containing waste (asbestos requirements are found in Table EUASBESTOS).

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units are subject to the federal Compliance Assurance Monitoring rule under 40 CFR Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

#### MI-ROP-N6039-2017

#### *EULANDFILL<50*

#### Unit Description:

This emission unit is of a landfill which has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, but actual emissions based upon an established Tier 2 value in the landfill calculation, is less than 50 megagrams. This landfill also has received a volume expansion (increased

the design capacity) permit from the DEQ, since May 30, 1991, and therefore making the landfill subject to 40 CFR Part 60, Subpart WWW.

**Testing/Sampling Requirements:**

- Tier 2 or Tier 3 testing, as selected by the permittee, for NMOC emissions shall be performed in accordance with methods outlined in Appendix 5. (40 CFR 60.754(a)(3) and (4)): *In Compliance*
- Tier 2 testing shall be performed at least once every five years. (40 CFR 60.754(a)(3)(iii)): *In Compliance: this was last done in December 2015. Next test due December 2020.*
- Tier 3 testing shall be performed once to establish a site-specific methane generation rate constant. (40 CFR 60.754(a)(4)(ii)): *In Compliance*

**Monitoring/Record Keeping Requirements:**

- Keep a record of the design capacity report for the facility: *In Compliance: A Map of the Landfill was reviewed onsite. There are 6 active cells.*
- Monitor and record the current amount of solid waste in-place and the year-by-year waste acceptance rate. These records shall be available upon request: *In Compliance annual records are attached to the hard copy of this report. The scale was installed in 2013, solid waste accepted through February 2020 totals 373348.88 tons.*
- Calculate the annual NMOC emission rates using methods outlined in Appendix 7 or the most recent version of USEPA's Landfill Gas Emissions Model (LandGEM): *In Compliance received for 2019, NMOC emissions for 2019 are calculated to be 1.71 Mg/yr*

**Reporting Requirements:**

- Prompt reporting of deviations: *In Compliance*
- Semiannual reporting of monitoring and deviations Report shall be postmarked or received by the appropriate AQD district office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. *In Compliance*
- Annual certification of compliance: *In Compliance*
- Submit an annual NMOC emission rate report to the District Supervisor. This report shall contain an annual or 5-year estimate of the NMOC emission rate and all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions: *In Compliance*
- No less than 30 days prior to any NMOC testing, a complete test plan must be submitted to the District Supervisor for approval.: *In Compliance*
- A complete test report for NMOC testing containing all test results shall be submitted to the AQD within 60 days after completion of testing.: *In Compliance*

**Other Requirements:**

- If the NMOC emission rate is calculated to be equal to or greater than 50 megagrams per year, the permittee shall install a collection and control system in compliance with 40 CFR 60.752(b)(2). Additionally, within 90 days the permittee shall apply for a revision of this permit to reflect applicable requirements of 40 CFR Part 60, Subpart WWW.: *In Compliance*
- The permittee shall comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and WWW. (40 CFR Part 60, Subparts A & WWW): *In Compliance*

***EUASBESTOS***

**Unit Description:**

This landfill actively accepts asbestos waste.

**Process/Operational Restrictions:**

Operational requirements (40 CFR 61.154) (SC III. 1. A-d):

- Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met. (40 CFR 61.154(a)): *In Compliance*
- Unless a natural barrier adequately deters access by the public, either warning signs and fencing must be installed. *In Compliance*
- Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. *In Compliance*

The warning signs must:

- o Be posted in such a manner and location that a person can easily read the legend (40 CFR 61.154(b)(1)(i)) *In Compliance*
- o Conform to the requirements of 51 cm by 36 cm (20 inches by 14 inches) upright format signs specified in 29 CFR 1910.145(d)(4) and 40 CFR 61.154(b)(1) (40 CFR 61.154(b)(1)(ii)) *In Compliance*
- o Display the legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in 40 CFR 61.154(b)(1). Spacing between any two lines must be at least equal to the height of the upper of the two lines. *In Compliance*
- Be covered with at least 15 centimeters (six inches) of compacted non-asbestos-containing material. (40 CFR 61.154(c)(1)) or Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the appropriate AQD's District Supervisor. For purposes of 40 CFR 61.154(c)(2), any used, spent, or other waste oil is not considered a dust suppression agent. (40 CFR 61.154(c)(2)) *In Compliance*

#### Design/ Equipment Parameter Requirements (SC IV. 1):

- The placement of gas collection devices determined in paragraph 40 CFR 60.759(a)(1) shall control all gas producing areas. *In Compliance*
- Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or non-degradable material deposited in the area and shall be provided to the AQD upon request. *In Compliance*

#### Monitoring/ Record Keeping Requirements (SC VI. 1-3):

For all asbestos-containing waste material received, the permittee of the active waste disposal site shall:

Maintain waste shipment records that include the following information: *In Compliance, waste manifests were reviewed onsite. Spread sheets summarizing deliveries from July 2019-December 2019 are attached to the hard copy of this report.*

- The name, address, and telephone number of the waste generator
- The name, address, and telephone number of the transporter(s)
- The quantity of the asbestos-containing waste material in cubic meters (cubic yards)
- The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
- The date of the receipt. (40 CFR 61.154(e)(1)(v))
- As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
- Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste,

immediately report in writing to the

- local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record).
- Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage.
- Keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in 40 CFR 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection.

**Reporting Requirements:**

- Prompt reporting of deviations: *In Compliance*
- Semiannual reporting of monitoring and deviations: *In Compliance*
- Annual certification of compliance: *In Compliance*
- Submit to the appropriate AQD District Supervisor, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities: *In Compliance*
- Notify the appropriate AQD's District Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the appropriate AQD's District Office at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification: *In Compliance*

Include the following information in the notice:

- Scheduled starting and completion dates.
- Reason for disturbing the waste.
- Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the AQD or may require changes in the emission control procedures to be used.
- Location of any temporary storage site and the final disposal site.

At the time of my inspection it appeared K & W landfill is following the requirements of MI-ROP-N6039-2017 and all other applicable state and federal air quality regulations.

NAME

S. J. [Signature]

DATE

03/13/2020

SUPERVISOR

E. [Signature]