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

N363435891

FACILITY: HARLAND SANITARY LANDFILL/MANISTEE COUNTY LANDFILL		SRN / ID: N3634
LOCATION: 3890 CAMP ROAD, MANISTEE		DISTRICT: Cadillac
CITY: MANISTEE		COUNTY: MANISTEE
CONTACT: Debbi Nurmi , Environmental Manager		ACTIVITY DATE: 08/04/2016
STAFF: Rob Dickman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection of this ROP source.		
RESOLVED COMPLAINTS:		

Harland's Sanitary Landfill is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) Landfill. The facility currently accepts petroleum contaminated soils, sludge, municipal household waste, and other waste.

Landfill gas is collected at Harland's Sanitary Landfill by an active gas collection system. 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 destructed. Since the NMOC emissions from the landfill have not yet reached 50 Megagrams, there are no operational requirements for the active gas collection system.

This current active system is allowed to be operated by Harland's Sanitary Landfill until 30 months after the facility's actual NMOC emissions reach 50 Megagrams. When the actual NMOC emission at Harland's Sanitary Landfill reaches 50 Megagrams, the landfill then has 12 months to submit an approvable design plan that satisfies the requirements of NSPS Subpart WWW. Some of the requirements of NSPS Subpart WWW require the design plan to specify equipment that can fulfill specific capture and destruction efficiencies. It is expected that this design plan will include an active landfill gas collection system that will be routed to a landfill gas combustion device. Within 18 months after the design plan has been submitted, the equipment specified in the approved design plan shall be installed and operating properly.

The facility has also installed a sulfur removal system prior to the waste flare designed to remove hydrogen sulfide from the landfill gas collection system. This system treats collected landfill gas that has significant concentrations of hydrogen sulfide. The gas is reduced to a low concentration and then converted to sulfur dioxide when burned in the flare.

I performed an inspection at this landfill as per ROP number MI-ROP-N3634-2015. No odors were noted downwind and outside of the facility. All haul roads, the plant yard, and the active parts of the landfill had no noticeable visible emissions during the inspection and appeared to be in good repair. Following are the results of the inspection by applicable permit condition:

EULANDFILL<50 - 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 Department of Environmental Quality, since May 30, 1991, and therefore making the landfill subject to NSPS WWW. Landfill gas from the landfill is controlled by a sulfur removal system and flare.

I. EMISSION LIMIT(S) – SOx emissions are limited to 36 tons per year based on a 12-month rolling time period. As of June 2016, SOx emissions were approximately 1.6 tons based on a 12-month rolling time period. Please see page 3 of attached records. It was noted during the inspection that the units listed on the records were tons but should actually be pounds. The facility will correct the spreadsheet.

II. MATERIAL LIMIT(S) – Landfill gas H2S concentration is limited to 400 ppm post treatment. In the last 12 months, the outlet concentration to the flare was <400 ppm except during periods of malfunction. A sample of these records is on pages 4 and 5 of the attached records. Concentrations during malfunction events are on page 6. Please see MACES for details regarding malfunction events.

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall only burn treated landfill gas in the flare except as provided in the approved malfunction abatement/operation & maintenance plan. The MAP for this facility was submitted in September of 2010 and approved in November of 2010. The only time untreated gas was sent to the flare is during periods of malfunction and shutdown of the treatment system. These events were documented by the facility. A sample of records of malfunction events are on page 6. See MACES for further details.

2. On and after the date of trial operation of the sulfur removal system, the permittee shall not operate the flare unless the sulfur removal system is installed, maintained, and operated in a satisfactory manner. At no time in the last 12 months was there an incident of this nature except during periods of malfunction. A sample of records of malfunction events are on page 6.Please see MACES for details regarding these events..

IV. DESIGN/EQUIPMENT PARAMETER(S) – Not Applicable

V. TESTING/SAMPLING

1. If the permittee elects to perform Tier 2 or Tier 3 testing, the permittee shall perform the testing in accordance with Appendix 5 of the ROP and use the resulting data in the emission calculations prescribed in Appendix 7 of the ROP or the most recent version of USEPA's Landfill Gas Emissions Model (LandGEM). Tier 2 testing was performed in November 2012. NMOC emissions based on LandGEM modelling and this testing were 8 tons (or ~8 Mg) for 2015. Please see MAERS and MACES for details.

2. If the tested Tier 2 NMOC mass emission rate is less than 50 megagrams per year, the permittee shall submit a periodic estimate of the emission rate report as provided in § 60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified § 60.754. This emissions rate report is through the MAERS reporting system and the reported NMOC emissions are less than 50 megagrams per year. This reporting has been performed annually and has been previously reviewed. Please see MAERS and MACES for further details.

3. The permittee can perform Tier 3 testing to establish a site specific methane generation rate constant. As of this date, the facility has not elected to perform this testing.

4. The permittee can propose alternative methods to determine NMOC emissions must have prior approval from USEPA. As of this date, the facility has [redacted] elected not to exercise this option.

VI. MONITORING/RECORDKEEPING

1. Except as provided in § 60.752(b)(2)(i)(B), the permittee subject to the provisions of § 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered § 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. This report was available for review at the time of the inspection. A sample of this report is located on page 7 of the attached records. For convenience, the pertinent information was transposed to the upper right corner of the page.

2. The permittee shall monitor and record the current amount of solid waste in-place and the year-by-year waste acceptance rate. A sample of this report is located on page 7 of the attached records. For convenience, the pertinent information was transposed to the upper right corner of the page.

3. The permittee shall calculate the annual NMOC emission rate using the most recent version of USEPA's Landfill Gas Emissions Model (LandGEM). NMOC emissions based on LandGEM modelling and this testing were 8 tons (or ~8 Mg) for 2015. Please see MAERS and MACES for details.

4. If the landfill is permanently closed, a closure notification shall be submitted to the District Supervisor within 30 days. This landfill is currently open with no plans otherwise.

5. The permittee shall install, calibrate, and maintain a gas flow measuring device that shall continuously record the total actual flow of landfill gas to the flare. This device was in place and appeared to be operating correctly

6. The permittee shall monitor and record on a monthly basis the average Btu content of the landfill gas burned in the flare. This testing is being performed. Records are stored electronically. See page 8 of the attached records for a screen shot. Units are in BTU per cubic foot.

7. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling SOx emission calculations for the flare. These calculations are being performed and were available for review. As of June 2016, SOx emissions were approximately 1.6 tons based on a 12-month rolling time period (see page 3 of attached records). It was noted during the inspection that the units listed on the records were tons but should actually be pounds. The facility will correct the spreadsheet.

8. The permittee shall monitor and record, on a weekly basis, the hydrogen sulfide concentration of the treated landfill gas. A sample of these records is on pages 4 and 5 of the attached records. Concentrations during malfunction events are on page 6. Please see MACES for details regarding malfunction events.

9. The permittee shall keep, in a satisfactory manner, records of the date and time the sulfur removal system is not operated due to malfunctions or maintenance. A sample of these records is on page 6. Please see MACES for details regarding malfunction events.

VII. REPORTING

1- 3. All semi-annual and annual deviation reporting has been completed in a timely manner. Review of this reporting is documented in MACES.

4. The permittee shall submit an annual NMOC emission rate report to the District Supervisor. This emissions rate report is through the MAERS reporting system. This reporting has been performed annually and has been previously reviewed. Please see MACES for further details.

5-7. The permittee shall notify the Department of any testing being performed at the facility per department guidelines. No testing has been performed at the facility in the last 12 months.

VIII. STACK/VENT RESTRICTION(S) – This stack appears in compliance with criteria listed in the ROP and does not appear to have been recently altered.

IX. OTHER REQUIREMENT(S)

1. The permittee shall implement and maintain an AQD approved MAP for the sulfur treatment system and flare. Any modifications to this plan must be submitted to and approved by the District Supervisor, AQD prior to implementation or changes. The MAP for this facility was submitted in September of 2010 and approved in November of 2010. No amendments to it have been made.

2. 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. NMOC emissions were 8 tons (or ~8 Mg) for 2015. Please see MAERS and MACES for details.

3. The permittee shall comply with all applicable provisions of 40 CFR Part 60 Subpart A and WWW, "Standard of Performance for Municipal Solid Waste Landfills", as they apply to the flare. This facility is in compliance with the Subpart.

FGCOLDCLEANERS - Any cold cleaner that is grandfathered or exempt from Rule 201 pursuant to Rule 278 and Rule 281(h) or Rule 285(r)(iv). Existing cold cleaners were placed into operation prior to July 1, 1979. New cold cleaners were placed into operation on or after July 1, 1979. The only cold cleaner located at this facility was replaced by an aqueous based cleaner. This FG is no longer applicable.

At the time of the inspection, this facility was in compliance with their applicable air permitting.

NAME _____ DATE 8/8/16 SUPERVISOR _____