

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

N600747276

FACILITY: Tri-City RDF		SRN / ID: N6007
LOCATION: 426 N. Ruth Rd., CARSONVILLE		DISTRICT: Saginaw Bay
CITY: CARSONVILLE		COUNTY: SANILAC
CONTACT: John Davis, District Engineer		ACTIVITY DATE: 12/05/2018
STAFF: Matthew Karl	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection to determine compliance with MI-ROP-N6007-2017		
RESOLVED COMPLAINTS:		

On Wednesday (12/5/18), I (Matt Karl) conducted a compliance inspection at Tri-City Recycling and Disposal Facility (RDF) located at 426 North Ruth Road, Carsonville, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Administrative Rules; Renewable Operating Permit (ROP) No. MI-ROP-N6007-2017. Mr. John Davis, District Engineer, People's Landfill, Venice Park Landfill and Tri City Landfill assisted me by providing requested records and assisting me during my inspection. Mr. John Gall, District Manager and Mr. Ben Rodriguez, Technician also assisted me during my inspection.

Facility Description:

Tri-City RDF 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. The landfill began accepting waste in 1987. In 2012, it underwent a vertical expansion of 80.2 acres, increasing the capacity of the landfill by 7,871,600 cubic yards.

Site Inspection:

I arrived on site at approximately 10:00. I met with John Davis, who provided me with information regarding the permit conditions. For the emission unit EULANDFILL, which represents the general Municipal Solid Waste (MSW) Landfill. John informed me that the current waste acceptance rate is approximately 400 cubic yards/day. I reviewed the recent quarterly surface scan records for 2018 and the 4th quarter of 2017. The surface testing was conducted by Air Quality Specialist, Inc. (AQSI). The results were noted as follows:

- Surface Scan 4th Quarter 2018 report dated 10/17/18 and conducted 10/10/18 indicated there were no methane (CH₄) exceedances above 500 ppm detected over the traverses run over the landfill surface.
- Surface Scan 3rd Quarter 2018 report dated 7/19/18 and conducted 7/18/18 indicated there were no methane (CH₄) exceedances above 500 ppm detected over the traverses run over the landfill surface.
- Surface Scan 2nd Quarter 2018 report dated 5/3/18 and conducted 4/25/18 indicated there were no methane (CH₄) exceedances above 500 ppm detected over the traverses run over the landfill surface.
- Surface Scan 1st Quarter 2018 report dated 1/25/18 and conducted 1/23/18 indicated there were no methane (CH₄) exceedances above 500 ppm detected over the traverses run over the landfill surface.
- Surface Scan 4th Quarter 2017 report dated 10/31/17 and conducted 10/17/17 indicated there were no methane (CH₄) exceedances above 500 ppm detected over the traverses run over the landfill surface.

After reviewing the surface scan records, we discussed recent changes to the landfill gas collection and control system (EUACTIVECOLL). The only recent changes included abandoning well GW-19R in 2017 and abandoning well HZ-5 and replacing it with two new wells earlier in 2018. Additionally, John Davis told me that there have been no instances of events triggering the Startup, Shutdown and Malfunction (SSM) plan to date in 2018.

Next, we discussed the open flare (EUOPENFLARE). The open flare was installed and had performance testing performed on it in 2015. John Davis informed me that they have had no issues with the operation of the flare since then. During the landfill tour portion of my inspection the flare was operating. I observed no opacity during the time of my inspection. I was able to observe the flare control panel at the base of the flare at approximately 10:47 and record the following information:

- Pilot Flame Temperature: 1242°F

- Main Flame Temperature: 1140°F
- Landfill Gas (LFG) Flow Rate: 342 SCFM

The flare currently uses three thermocouples to monitor temperature (2 for the main flame temperature and 1 for the pilot flame temperature). The thermocouples were replaced earlier in 2018, and the landfill keeps 1 spare on site. If the flare flame goes out, the system shuts off the flow of LFG to the flare.

For the EUASBESTOS section of the inspection, I requested John Davis walk me through the process of how asbestos containing waste material (ACWM) is accepted and handled at the landfill. He informed me that waste transporters are required to provide 24-hour advance notice of bringing ACWM to the landfill and provide a waste shipment record. When the ACWM arrives on site, the amount is visually checked by the landfill gate operator and compared to the amount on the waste shipment record. Once inside the landfill, disposal pits are dug adjacent to the face of the active cell hill, deposited and covered immediately with a minimum of 6" of soil cover. A water truck is available onsite to provide dust suppression if required. The location of the deposited ACWM is noted with a GPS. The date of the shipment, northing and westing landfill coordinates, Cell #, amount of ACWM in (cubic) yards, Profile # and elevation are all recorded. The "Asbestos Location Plan" map is updated with this information monthly. The landfill differentiates between friable and nonfriable ACWM. John Davis provided me with the "Friable Asbestos Coordinates" recordkeeping sheet, which indicated the last friable ACWM was received on 6/16/16. John Davis informed me there have been no recent non-friable ACWM received either. The landfill maintains a yearly asbestos notification with the Department in the event that they need to drill a collection well that would impact an asbestos disposal site. John Davis informed me he would be re-submitting the yearly asbestos notification in January 2019.

John Davis informed me that the cold cleaner (EUCOLDCLEANER, FGCOLDCLEANER) that was associated with truck maintenance, has been removed from the site since the last inspection. Truck maintenance is no longer performed at this site. John Davis requested I send him the information to request the removal of the associated emission unit and flexible group from the ROP.

Additionally, John Davis informed me that the site has been working on slope recovery on the south side of the Cell 11 hill. Future slope recovery is planned along the west slope of the Cell 11 hill next spring (2019). Future expansion work is planned to be done in Cell 12 to the west of the current active cell in 2020.

Records Review:

I sent John Davis a records request on Thursday (11/29/18) via email. On Wednesday (12/5/18) John Davis provided me with the following records, which are available in the District office files:

- Cover Integrity Reports – 10-18_10-17
- TCLF ASBESTOS 11-6-17 "ASBESTOS LOCATION PLAN"
- TCRDF May 2003 GCCS Design Plan
- Tri City MAERS Report – 2017
- Tri City MAERS Report Input – 2017
- Tri City RDF Combined Solid Waste Receipt Report – FY2017_2018 – signed
- Tri City SSM Plan – 1-1-15
- Well Field Data_10-18_10-17
- 002021_171201_000100.DAD-002034_171213_000100.DAD "EUOPENFLARE 12/1-12/13/17"
- 002035_171213_113800.DAD-002056_171231_000100.DAD "EUOPENFLARE 12/14-12/31/17"
- 002148_180401_000100.DAD-002182_180430_000100.DAD "EUOPENFLARE 4/1-4/30/18"
- 002276_180801_000100.DAD-002310_180901_172100.DAD "EUOPENFLARE 8/1-9/1/18"

On Tuesday (12/11/18) I received the following friable asbestos waste shipment records from John Davis via email:

- Friable Asbestos WSR – 6-17-16.pdf
- Friable Asbestos WSR – 1-21-16.pdf

EULANDFILL: Compliant

SC VI.1. The permittee shall implement a program to monitor on a monthly basis for cover integrity and implement cover repairs as necessary.

I reviewed the Monthly Cover Integrity Inspection Reports for 2017 and January 2018–November 2018. The most common repair required was filling holes due to animals nesting and digging burrows. The second most common repairs addressed areas of distressed vegetation or erosion which were covered with additional topsoil and re-

seeded with grass. In June 2018, the facility changed the "Monthly Cover Integrity Inspection Form (Template)" to provide more detailed notes on the findings and corrective actions taken.

SC VI.2. Except as provided in 40 CFR 60.752(b)(2)(i)(B), the permittee shall maintain up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 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 four hours. Either paper copy or electronic formats are acceptable.

I reviewed the "Combined Solid Waste Landfill Waste Receipt Report" for the 2017-2018 reporting year (October 1, 2017- September 30, 2018). The report capacity data is included in the following table:

Capacity	Cubic Yards
Total Permitted Capacity	20,007,490
Est. Capacity at start of state fiscal year (October 1)	16,800,150
Est. Capacity at end of state fiscal year (September 30)	16,776,150
Est. Capacity used during this reporting year	24,000

The waste origins included the following counties: Genesee, Huron, Lapeer, Macomb, Oakland, Sanilac and Tuscola. The waste types included: municipal and commercial waste (MCW), construction or demolition (C&D) and industrial (general).

SC VI.4. The permittee shall calculate and record the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the equation presented in 40 CFR 60.754(b).

I reviewed the MAERS 2017 report for the facility to determine compliance with this condition. In 2017 the annual emissions of NMOC was 6,314 pounds (lbs.).

EUACTIVECOL: Compliant

SC VI.1. Landfill Gas Collection and Control System (GCCS) monthly well head pressure reading records for 10/1/2017-10/1/2018.

SC VI.3. Landfill Gas Collection and Control System (GCCS) monthly well temperature and oxygen content (%) reading records for 10/1/2017-10/1/2018.

I reviewed the "Well Field Data_10-18_10-17" and compared them to the Semi-Annual ROP Deviation Reports for the 2nd half of 2017 Table 1: Well Head Exceedance Data (July 1, 2017 through December 31, 2017) and 1st half of 2018 Table 1: Well Head Exceedance Data (January 1, 2018 through June 30, 2018). The conditions I was evaluating for compliance were SC III.4. which requires the GCCS to operate below 5% O₂ (oxygen) and below a temperature of 131°F and SC III.3. which requires each well head to maintain a negative pressure reading. Certain wells, TRIC002R and TRIHZ001 have Department approved higher operating values (HOV) for oxygen percentages of 15% and 20% respectively. The specific variance for TRIHZ001 indicates that that the oxygen concentrations shall not exceed 20% and positive pressure shall not exceed 5" W.C. The landfill has included instances where positive pressure was identified below 5" W.C. in the Semi-Annual ROP Deviation Reports even though they are not an exceedance of the above variance. Additionally, I discussed with John Davis the HOVs approved in the GCCS Design Plan, which indicated a HOV of 15% O₂ and temperatures maintained below 100°F for wells GW-01, GW-02, GW-04, GW-05, GW-13, and GW-17. Taking the approved HOV and variances into consideration, all well head exceedances over the period of the records reviewed were reported in the Semi-Annual ROP Deviation Reports.

EUOPENFLARE: Compliant

SC VI.5. Records of gas flow to the flare and temperature of the flare for December 2017, April 2018 and August 2018.

I reviewed the EUOPENFLARE Records for December 2017, April 2018 and August 2018, and compared them to the Semi-Annual ROP Deviation Reports for the 2nd half of 2017 Table 2: Flare Downtimes (Greater Than 1-Hour) Log (July 1, 2017 through December 31, 2017) and 1st half of 2018 Table 2: Flare Downtimes (Greater

Than 1-Hour) Log (January 1, 2018 through June 30, 2018).

The EUOPENFLARE Records for December 2017, April 2018 and August 2018 contain the following information for the operation of the flare:

- flow (scfm): normal operating range approximately 270-370 scfm
- pilot (°F): pilot flame temperature, normal operating range approximately 1100-1300°F
- main (°F): main flame temperature, normal operating range approximately 1100-1300°F
- vacuum ("W.C.): vacuum pressure, normal operating range -15 to -17 "W.C.
- blower status (blwr): 1 operating, 0 not operating
- valve status (valve): 1 open, 0 closed
- total flow (MSCF): total flow to the flare.

The following events were noted in the EUOPENFLARE Records as well as the Flare Downtimes (Greater Than 1-hour) Logs:

Date	Duration (hours)	Cause and Description	Corrective Action
4/14/18	4.4	Power Outage	Re-started
12/12/17	50.6	Maintenance -thermocouple upgrade	Re-started

EUASBESTOS: Compliant

VI.4. The permittee shall furnish upon request and make available during normal business hours for inspection by the AQD, all records required by 40 CFR Part 61.

I reviewed the TCLF ASBESTOS 11-6-17 "ASBESTOS LOCATION PLAN" as well as the waste shipment records (WSR) for the last two friable asbestos shipments received at the landfill (Friable Asbestos WSR – 6-17-16; 1-21-16). John Davis informed me that the landfill has not received any ACWM at the landfill recently, but when ACWM material is received the asbestos location plan is updated monthly. The WSR I reviewed appeared to contain all of the required information.

Summary:

At the time of my Wednesday (12/5/18) inspection, it appeared that Tri-City Recycling and Disposal Facility (RDF) was in compliance with ROP No. MI-ROP-N6007-2017.

NAME Matthew R. Karl

DATE 12/17/18

SUPERVISOR C. Dace