

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

N539747736

FACILITY: Peoples Landfill, Inc.		SRN / ID: N5397
LOCATION: 4143 E. Rathbun Rd., BIRCH RUN		DISTRICT: Saginaw Bay
CITY: BIRCH RUN		COUNTY: SAGINAW
CONTACT: John Davis, Site Engineer		ACTIVITY DATE: 02/06/2019
STAFF: Meg Sheehan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled site inspection for FY19		
RESOLVED COMPLAINTS:		

On Wednesday, February 6, 2019, a scheduled site inspection was conducted by AQD District staff at Waste Management (WM) – People's Landfill in Birch Run, Saginaw County. WM representatives John Davis (Site Engineer) and Terry Nichols (District Manager) were onsite to answer questions, provide records and a tour of the landfill. The facility was in operation upon arrival. Site inspection activities were conducted with the intent of confirming compliance with Renewable Operating Permit (ROP) No. MI-ROP-N5397-2014.

MI-ROP-N5397-2014 was issued on February 3, 2014 and expired on February 3, 2019. The renewal application was finalized and issued on February 7, 2019 (MI-ROP-N5397-2019). For the purposes of this inspection, compliance has been evaluated based on the conditions of MI-ROP-N5397-2014.

#### FACILITY DESCRIPTION

People's Landfill is bounded by Rathbun Road to the north, Marshall Road to the east, Canada Road to the south, and Pettit Road to the west (attachment 1). The surrounding area is predominately agricultural and residential.

This stationary source is classified as a Type II sanitary landfill and active municipal solid waste (MSW) landfill owned and operated by Waste Management. It began accepting waste in 1969. It has a design capacity greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m<sup>3</sup>) and has estimated uncontrolled emissions equal to or greater than 50 Mg/year of non-methane organic compounds (NMOC). The landfill has been modified since May 30, 1991 and has an active gas collection system and gas-to-energy facility (owned and operated by North American Natural Resources – People's Generating Station (NANR – SRN P0415)).

NANR and Waste Management (WM) have a contractual agreement in which People's Landfill sells landfill gas (LFG) to NANR, and NANR is dependent upon People's Landfill to provide LFG which is combusted in its five reciprocating internal combustion engines (RICEs). The contractual and spatial relationship of the two facilities establishes People's Landfill and NANR – People's Generating Station as a single stationary source based on the definition in Michigan's Rule 336.1119(r). However, based on an agreement between the AQD and management of People's Landfill and NANR – People's Generating Station, the two facilities were issued separate State Registration Numbers (SRNs) and ROPs in 2013 and 2014 respectively. As of the most recent ROP renewal cycle, the two sources have requested a single, sectioned ROP to cover operations at both facilities (MI-ROP-N5397-2019).

#### PROCESS

LFG is collected by an active gas collection system (EU-ACTIVECOLL) through a series of vertical extraction wells that are installed into the depths of the landfill refuse, which remove LFG by vacuum applied to the well from a blower. The LFG is then routed to NANR for treatment and generation of electricity. Any excess LFG, or when the NANR facility is down, is routed to the open flare (EU-OPENFLARE), which is owned and operated by WM. The collection system is periodically modified by adding a gas well and/or collection piping as needed when sections of the landfill begin to produce significant gas quantities. It is noted that the open flare is sized to burn all collected gas generated by the landfill.

#### COMPLIANCE HISTORY

No complaints are of record for the facility. At the time of the most recent site inspection (January 2017), the facility was found to be in compliance with its ROP and air rules. All required reports have been submitted in a timely manner for the past several years.

#### COMPLIANCE EVALUATION

### EU-LANDFILL

The landfill is subject to New Source Performance Standard (NSPS) in 40 CFR Part 60, Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills, and the Maximum Achievable Control Technology (MACT) standard in 40 CFR Part 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills. The MAERS 2016 reported NMOC emissions from the landfill were 15.05 tons, and the 2017 reported emissions were 14.92 tons.

I.1. / V.1. – V.5. Surface emission monitoring completed each calendar quarter pursuant to Special Conditions V.1. and V.2. verify that the methane concentration remains at or below 500 ppm above background levels. Reports from 2017 and 2018 were reviewed as part of the inspection. Only one exceedance was detected during the 2017 second quarter scan conducted on June 16, 2017. Soil was added to the area and it was rechecked later in the day with no exceedance detected. The area was scanned again a month later and no exceedance was detected (attachment 2).

VI.1. Cover integrity is monitored monthly by the gas technician. Observations are made throughout the month while the technician is also inspecting gas wells in the area. Cover repairs are made as necessary.

VI.2. The current amount of solid waste currently in place is 14,718,188 cubic yards. The amount of waste accepted for fiscal year (FY) 2016-17 was 543,512 cubic yards, and 574,268.3 cubic yards for FY 17-18.

VII.6. The surface emission exceedance that occurred on June 16, 2017 was reported in the semi annual NSPS WWW report, which was received by the District office on September 15, 2017.

### EU-ACTIVECOLL

III.3. / VI.1. / VI.6. Gas well pressure data from January 2017 to December 2018 was reviewed. During this time period the collection system operated with negative pressure at almost all the wellheads. At the wellheads where positive pressure was detected, corrective actions were taken within five calendar days or an alternative timeline was requested and approved. These exceedances were reported on semi-annual reports as required.

III.4. / VI.3. / VI.6. Gas well temperature and oxygen level data from January 2017 to December 2018 was reviewed. During this time period the collection system operated below 55 degrees C at each wellhead. Most wellheads operated with an oxygen level less than 5 percent. At wellheads where oxygen levels were greater than 5 percent, corrective actions were taken within five calendar days or an alternative timeline was requested and approved. These exceedances were reported on semi-annual reports as required (attachment 3).

Field calibrations are performed before each sampling event and the sampling device is also sent to the manufacturer a couple times a year for calibration.

VI.7.g. The age of the waste in place for each portion of the landfill was provided (attachment 4).

Mr. Davis also provided staff with the most current GCCS construction map (attachment 5).

### EU-OPENFLARE

The flare is designed to control up to 2,000 scfm of LFG and is non-assisted. It operates mainly as a backup to the NANR gas to energy facility. During the inspection the flare was in operation, and no visible emissions were observed. The most recent stack test was conducted on June 3, 2010.

III.5. The stack test determined that the inlet gas net heating value is 18.96 MJ/scm (megajoule/standard cubic meter). The NSPS requirement is greater than 7.45 MJ/scm.

III.6. The stack test also determined that the average exhaust gas exit velocity is 70.0 fps (feet per second). The NSPS requirement is 60 fps, or less than the maximum permitted velocity, calculated to be 105.3 fps.

VI.1. The flare has two thermocouples to monitor for the continuous presence of a flame – one is at the pilot and the other is up higher, towards the middle of the flame. If the presence of a flame cannot be detected, the flare automatically shuts down. People's Landfill does not have a bypass of the control system. Therefore, LFG does not get discharged to ambient air. The facility has installed a measuring device that records temperature and the flow to the control device every 10 minutes.

Records of the gas flow rate and pilot flame monitoring were provided for February 2017, October 2017, May 2018 and December 2018. The flare appeared to operate in compliance with the applicable requirements during these time periods.

EU-ASBESTOS

This portion of the inspection was conducted by Matt Karl, AQD asbestos inspector. A copy of his report may be found attached to this report in the District file (attachment 6). People's Landfill was found to be in compliance with these requirements.

FGCOLDCLEANERS

Currently, there is one cold cleaner onsite. WM staff report it has been out of service for years and all the solvent has been drained from it. Please see attachment 7 for additional documentation.

**COMPLIANCE DETERMINATION**

At this time, People's Landfill appears to be in general compliance with ROP No. MI-ROP-N5397-2014 and all applicable rules and regulations.

NAME Meg Sheehan

DATE 3/4/19

SUPERVISOR C. Price