

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

P041547602

FACILITY: North American Natural Resources (NANR)		SRN / ID: P0415
LOCATION: 4143 E. Rathburn Road, BIRCH RUN		DISTRICT: Saginaw Bay
CITY: BIRCH RUN		COUNTY: SAGINAW
CONTACT: Nate Gokey , Regional Manager		ACTIVITY DATE: 01/15/2019
STAFF: Meg Sheehan	COMPLIANCE STATUS: Unknown	SOURCE CLASS: MAJOR
SUBJECT: Scheduled site inspection for FY19		
RESOLVED COMPLAINTS:		

On Tuesday, January 15, 2019, a scheduled site inspection was conducted by AQD District staff at the North American Natural Resources (NANR) – People’s Generating Station in Birch Run, Saginaw County. NANR representatives Richard Spranger (Director of Operations/Responsible Official) and Nate Gokey (Regional Manager) provided a tour of the facility. 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-P0415-2014.

MI-ROP-P0415-2014 was issued on February 3, 2014 and expires on February 3, 2019. The renewal application is currently in-house, having been received on July 10, 2018. For the purposes of this inspection, compliance has been evaluated based on the conditions of MI-ROP-P0415-2014.

FACILITY DESCRIPTION

NANR – People’s Generating Station is a landfill gas-to-energy facility. Its entrance is located approximately a quarter mile east of People’s Landfill entrance on Rathburn Road (see attachment 1). It is bounded by Rathburn Road to the north, Marshall Road to the east, Canada Road to the south, and Pettit Road to the West. The surrounding area is predominately agricultural and residential.

NANR and Waste Management (WM) have a contractual agreement in which People’s Landfill (SRN N5397) 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.

PROCESS

This stationary source takes raw LFG from People’s Landfill and treats the gas for use as fuel in the five RICES (4 – Caterpillar G3516 and 1 – Caterpillar G3516LE). The LFG is collected at the People’s Landfill facility by an active gas collection system (owned and operated by WM) through a series of vertical extraction wells that are installed into the depths of the landfill refuse, which remove landfill gas by vacuum applied to the well from a blower. The LFG is then routed to NANR – People’s Generating Station for treatment and generation of electricity. Any excess LFG, or when the NANR facility is down, is routed to the open flare (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

EUTREATMENTSYS

The collected landfill gas is filtered, dewatered, compressed, and cooled prior to use as fuel in one of five generators owned and operated by NANR. On March 25, 2004, the AQD provided a site specific NSPS

applicability determination that the system treating LFG from People's gas collection and control system (GCCS) meets the requirements of 40 CFR 60.752(b)(2)(iii)(C) for a treatment system. During the site visit the treatment system was operating and all required monitoring and recordkeeping were being performed. A copy of the Startup, Shutdown and Malfunction (SSM) plan as well as a copy of the Preventative Maintenance Plan (PMP) are kept onsite and were available for review.

FGENGINES#1-4

This flexible group contains four Caterpillar G3516, 1145 horsepower (HP) RICEs that use treated LFG to generate electricity that is fed to the power grid. Mr. Gokey reported that the maximum capacity gas flow rate for each engine is approximately 300 standard cubic feet per minute (scfm), and that the engines are typically run at full load, depending on the gas quality. Permit to Install (PTI) No. 437-94 was previously rolled into the ROP for these engines. The four engines have emission limits for NO_x, CO, VOCs, and HCl. The facility must also monitor and record the electrical output, hours of operation, and LFG flow to the engines. The information is recorded electronically and appears to be in compliance with permit limits (see attachment 2).

The most recent tests of the engines were conducted on June 29, 2015. NO_x, CO, HCl and VOC emission rates from all four engines were below permit limits and NSPS JJJJ limits. The Department will again request NO_x, CO, HCl and VOC emissions testing from all four engines within five years of the last test date. No visible emissions were observed at the time of the inspection.

EUENGINE#5 and FGRICEMACT

This emission unit and flexible group were not evaluated for compliance during this inspection. On March 8, 2017, Mr. Rob Harvey with Derenzo Environmental Services sent a notification via email that EUENGINE#5 was going to be replaced with an apparently exempt emission unit: a single CAT G3516LE engine-generator set, rated at 1,148 HP. The engine is apparently exempt under R 336.1285(2)(g) – engines with a heat input less than 10 million Btu/hr. An NSPS and NESHAP applicability determination was also submitted to the AQD by Derenzo Environmental Services, indicating the engine is apparently exempt from 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ. These documents may be found in the District file. At the time of the inspection the engine was offsite for an overhaul. EUENGINE#5 and FGRICEMACT have been removed from the proposed ROP.

COMPLIANCE DETERMINATION

At this time, North American Natural Resources (NANR) – People's Generating Station appears to be in general compliance with ROP No. MI-ROP-P0415-2014 and all applicable rules and regulations.

NAME Meg Sheehan DATE 2/6/19 SUPERVISOR C. Hall