

P0270
MANILA

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

P027050088

FACILITY: CANTON RENEWABLES LLC		SRN / ID: P0270
LOCATION: 4345 S LILLEY ROAD, CANTON TWP		DISTRICT: Detroit
CITY: CANTON TWP		COUNTY: WAYNE
CONTACT: Emily Zambuto , Manager of Environmental Programs		ACTIVITY DATE: 08/07/2019
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Target Inspection		
RESOLVED COMPLAINTS:		

DATE OF INSPECTION : August 7, 2019
 TIME OF INSPECTION : 10:00 am
 INSPECTED BY : Jill Zimmerman
 PERSONNEL PRESENT : Emily Zambuto
 FACILITY PHONE NUMBER : 585-278-4773
 EMAIL CONTACT : Emily.Zambuto@ariaenergy.com

FACILITY BACKGROUND

Canton Renewables operates a process where landfill gas is collected, and the methane is cleaned so that it can be sold to a third party. This facility has been operating at this location since 2012. The facility operates twenty-four hours a day, seven days a week, and can be controlled both onsite and remotely. The operating room is staffed during normal business hours. The facility is considered a major source because the facility is located on the same property as the Sauk Trails Landfill, which is also considered a major source. At the time when the Title V permit is renewed, Sauk Trails Landfill and Canton Renewables will be combined as one source with each operation permitted in separate sections of the Title V permit. The facility is fully depending on the landfill gas that it receives from Sauk Trails in order to operate.

REQUIRED PPE

During the onsite inspection, steel toed shoes, eye protection, a safety vest, and a hardhat were required to be worn.

COMPLAINT/COMPLIANCE HISTORY

No complaints have been received regarding this facility since the last inspection. No violation notices (VN) have been issued regarding this facility since the last inspection.

PROCESS EQUIPMENT AND CONTROLS

The landfill gas is collected and piped to Canton Renewables, which is located on the same property as Sauk Trails Landfill. The gas is compressed and then cooled using ammonia. Then the methane is separated out of the gas stream; carbon dioxide is removed by bubbling the gas through a water stream. The methane then passes through a platinum catalyst where the oxygen is removed to a level of less than 5 parts per million. The methane passes through a gas chromatographer which monitors the purity among other things. Finally, the pure gas is piped to a Detroit Edison substation located just off of the property. Detroit Edison monitors the purity of the methane. If they accept the methane, it is piped along Haggerty Road to a location where it can be added into the pipeline for distribution. The tail gas passes through a regenerative thermal oxidizer (RTO). The RTO usually operates at a temperature in the range of 1500 °F – 1750 °F and is continuously monitored. When the plant is shutdown, or at times when the methane is not accepted by Detroit Edison, the methane is

vented to the west flare, which is the only flare operated by Canton Renewables.

INSPECTION NARRATIVE

I arrived at the facility at 10:00 am and met with Ms. Emily Zambuto. Together we discussed the process of the facility. We also discussed the ROP renewal process, as the facility currently has submitted a renewal application. I explained that during the renewal process, the facility will be reunited with Sauk Trails Landfill as one stationary source, operating in two separate sections. At that time, the ROP from Sauk Trails will be assigned to both facilities, and the MAERS will be submitted as one report with two sections. During the inspection, the plant was operating properly and was producing acceptable gas. After explaining the process, we walked through the plant. The facility has a small natural gas generator that is used during emergency. The generator will power emergency lighting and controls so that the plant can gradually power down.

APPLICABLE RULES/PERMIT CONDITIONS

The facility is considered a major source because it is on the same property as Sauk Trails Landfill. The facility is operating under Title V permit MI-ROP-P0270-2012a which was revised on June 28, 2016. On December 5, 2017 a Permit to Install (98-11C) was issued to this facility to increase the hours of operation for the flare. Both permits are evaluated below.

EULFGPLANT controlled by a 3,200 scfm regenerative thermal oxidizer and 4,200 scfm open flare.

- I. Emission Limits – NA
- II. Material Limits – NA
- III. Process/Operational Restriction
 1. Compliance – The MAP has been reviewed. No changes to this plan have been made since the last inspection. No issues have occurred at the plant that would indicate that changes need to be made to the MAP at the time of the onsite inspection. A copy of the MAP was submitted as part of the ROP renewal application.
 2. Compliance – Based on the records collected during the onsite inspection, the flare operated for 1745.85 hours in July 2018, which was the largest amount of time that the flare operated in a month during the past twelve months. This value is less than the permitted limit of 3,744 hours per year. This permit limit was increased to 6,600 hours in PTI 98-11C.
 3. Compliance – The facility only burns processed landfill gas in the flare.
 4. Compliance – The open flare operates with a continuous pilot so that all gas piped to the flare can be flared.
 5. Compliance – During the onsite inspection, I did not observe any visible emissions from the flare. Periodically I did observe a flame in the flare.
- IV. Design/Equipment Parameters
 1. Compliance – During the onsite inspection, the RTO was operating properly. The RTO usually operates in a temperature range between 1500 °F and 1750 °F, which is above the minimum combustion chamber temperature of 1400 °F. During the onsite inspection, the RTO was operating at 1642 °F.
 2. Compliance – A temperature monitoring device is installed on the RTO. The temperature is recorded electronically. The electronic data was reviewed for the month of June during the onsite inspection.
 3. Compliance – The gas collection system was built in accordance with 40 CFR Part 60 Subpart WWW and is acceptable to the Department.

4. Compliance – The flare operates with a thermocouple that continuously monitors for the presence of a flare.
- V. Testing/Sampling
 1. Compliance – An initial stack test was performed on April 30, 2013 when the gas processing plant began operation. PTI 98-11C do not contain any testing requirements.
 2. Compliance – Visual emission testing was performed on April 30, 2013. During the 120-minute observation time period, no VE were observed.
- VI. Monitoring/Recordkeeping
 1. Compliance – The temperature for the RTO is collected electronically on a continuous basis. The temperature can be reviewed in as small as two second increments. This data was reviewed during the onsite inspection.
 2. Compliance – The facility maintains an electronic file of the temperature of the RTO and can be reviewed in any time frame as low as every 15 seconds. This data was reviewed during the onsite inspection.
 3. Compliance – The facility maintains an electronic file of the hours the flare operates, as well as any down time for the facility. The hours that the flare has operated for the past year is attached to this report.
- VII. Reporting – Compliance – The facility has submitted timely annual and semiannual reports for the past year. No deviations have been reported on these reports for 2018.
- VIII. Stack/Vent Restriction – Compliance – The facility installed all stacks to the permitted requirements. No changes have been made to these stacks.
- IX. Other Requirements – Compliance – The facility operates on the same property as Sauk Trail Landfill. This facility accepts the landfill gas, purifies the gas and sells the gas. Any aspects of landfill maintenance associated with this process are being followed by the facility.

EUTREATMENTSYS: This emission unit is strictly for the NSPS WWW and MACT AAAA requirements pertaining to the landfill gas treatment system.

- I. Emission Limits – NA
- II. Material Limits – NA
- III. Process / Operational Restrictions
 1. Compliance – The treatment system operates continuously unless the plant has a malfunction or is performing maintenance.
 2. Compliance – All emissions are routed to the open flare, which operates with a continuous pilot light to flare off all gases.
 3. Compliance – The treatment system is controlled by an open flare that appears to be operating properly.
- IV. Design / Equipment Parameters
 1. Compliance – The treatment system appears to be properly designed.
- V. Testing / Sampling – NA
- VI. Monitoring / Recordkeeping
 1. Compliance – All operating records are maintained electronically and were reviewed during the onsite inspection.
 2. Compliance – All maintenance performed is recorded electronically and was reviewed during the onsite inspection.
 3. Compliance – All operating reports have been approved and appear to show that the system is operating properly.
- VII. Reporting – Compliance – The facility has submitted timely annual and semiannual

reports for the past year. No deviations have been reported on these reports for 2018.

VIII. Stack / vent Restrictions – NA

IX. Other Requirements – Compliance – A SSM plan has been approved and is being followed at the facility. A SSM report has been submitted along with the semiannual compliance report and lists all incidents that have occurred at the facility, the duration of the outage and the actions completed to return the system to the proper operating conditions.

MAERS REPORT REVIEW

The report was received on time. The facility submitted supporting data with the MAERS which appears to correctly record the emissions data for both the open flare and the RTO.

FINAL COMPLIANCE DETERMINATION

Canton Renewable appears to be operating in compliance with all state and federal regulations as well as all ROP conditions.

NAME 

DATE 9/6/19

SUPERVISOR JK