D007044000

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

FACILITY: CANTON RENEWABLES LLC		SRN / ID: P0270
LOCATION: 4345 S LILLEY ROAD, CANTON TWP		DISTRICT: Detroit
CITY: CANTON TWP		COUNTY: WAYNE
CONTACT: Stephen Smith , Vice President		ACTIVITY DATE: 08/17/2017
STAFF: Jill Zimmerman	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Target Inspection		•
RESOLVED COMPLAINTS:		

DATE OF INSPECTION	:	August 17, 2017
TIME OF INSPECTION	:	11:00 am
LEVEL OF INSPECTION	:	11
NAICS CODE	:	221210
EPA POLLUTANT CLASS	:	VOC
INSPECTED BY	721	Jill Zimmerman
PERSONNEL PRESENT		Stephen Smith
		Steve Yanko
FACILITY PHONE NUMBER	:	949-437-2579
EMAIL CONTACT		ssmith@cleanenergyfuels.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 or 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.

### **REQUIRED PPE**

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

### COMPLAINT/COMPLIANCE HISTORY

No complaints have been received regarding this facility. No violation notices (VN) have been issued regarding this facility.

### 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. Next it is cooled using ammonia. Then the methane is separated out of the gas 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 chronometer 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 1600 °F – 1750 °F and is continuously monitored. When the plant is shutdown, or at times when the methane is not accepted by Canton Renewables.

http://intranet.deq.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=246... 9/26/2017

## INSPECTION NARRATIVE

I arrived at the facility at 11:00 am and met with Mr. Stephen Smith. Together we discussed the process of the facility. We also discussed the ROP renewable 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 this time, the ROP from Saul 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 Saul Trails Landfill. The facility is operating under Title V permit MI-ROP-P0270-2012a which was revised on June 28, 2016.

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.
  - Compliance Based on the records submitted with the 2016 MAERS report, the flare operated for 1,659 hours, which is less than the permitted limit of 3,744 hours per year.
  - 3. Compliance The facility only burns processed landfill gas in the flare.
  - 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.
- IV. Design/Equipment Parameters
  - Compliance During the onsite inspection, the RTO was operating properly. The RTO usually operates in a temperature range between 1600 °F and 1750 °F, which is above the minimum combustion chamber temperature of 1400 °F.
  - 2. Compliance A temperature monitoring device is installed on the RTO. The temperature is recorded electronically.
  - 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 a continuous flare that is monitored with a thermocouple.
- V. Testing/Sampling
  - Compliance An initial stack test was performed on April 30, 2013 when the gas processing plant began operation. This test showed that the flare was operating in compliance with the permit requirements.
  - 2. Compliance Visual emission testing was performed on April 30,

- 2013. During the 120 minute observation time period, no VE were observed. This test showed that the flare was operating in compliance with the permit requirements.
- VI. Monitoring/Recordkeeping
  - 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.
  - 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.
  - 3. Compliance The facility maintains an electronic file of the hours the flare operates, as well as any down time for the facility. The records for 2016 were reviewed with the MAERS.
- 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 2016 or for the first half of 2017.
- 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 Any gas that does not meet the quality needed to be resold is then treated by the RTO and then pass through the open flare. The flare has a continuous operating pilot light.
  - 3. Compliance The treatment system is controlled by an open flare that appears to be operating properly. It is also controlled by an RTO.
- IV. Design / Equipment Parameters
  - 1. Compliance The treatment system appears to be properly designed.
- V. Testing / Sampling NA
- VI. Monitoring / Recordkeeping
  - Compliance All operating records are maintained electronically and were reviewed during the onsite inspection. No exceedances were reported during the past year.
  - 2. Compliance All maintenance preformed is recorded electronically and was reviewed during the onsite inspection. A copy of this record is attached to this report.
  - 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 2016 or for the first half of 2017.

- 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 facility electronically submitted MAERS on February 23, 2017. The MAERS was reviewed on May 26, 2017. The emissions for EU\_THERMOXIDIZER had increased by more than 1200% from last years emissions, while the throughput increased by less than 90%. I sent the facility contacts an email asking for clarification on this on May 26, 2017.

On May 31, 2017 I received an emailed correction and expectations from the facility. I attached this email to this report. The emissions were corrected based on the company's explanation. I received an error message when I try to submit the corrected report. This report has passed the audit.

### FINAL COMPLIANCE DETERMINATION

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

DATE 12417

SUPERVISOR