

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

M231558016

FACILITY: ROSEDALE MEMORIAL PARK CEMETERY		SRN / ID: M2315
LOCATION: 0-50 LAKE MICHIGAN DR NW, GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: OTTAWA
CONTACT: Bill Burke Jr. , Family Service Director		ACTIVITY DATE: 05/12/2021
STAFF: Chris Robinson	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY'21 inspection to determine the facility's compliance status with respect to PTI no. 61-74I, 67-08, and 188-19 and any other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

The purpose of this report is to document the findings of an onsite inspection of Rosedale Memorial Park Cemetery (Rosedale, SRN M2315) located at 0-50 Lake Michigan Drive NW in Grand Rapids, Michigan. The inspection was conducted by AQD staff Chris Robinson (CR) on May 12, 2021 to determine the facility's compliance status with the requirements of the federal Clean Air Act; Part 55 (Michigan's Air Pollution Control Rules) of Act 451 (Natural Resources and Environmental Protection Act (NREPA)); and the requirements established in Permit to Install (PTI) No. 61-74I, 67-08, and 188-19.

Due to the Covid19 pandemic and to ensure proper staff were onsite CR contacted Bill Burke Jr., Family Services Director for Rosedale on May 11, 2021 and scheduled the inspection for May 12, 2021. Proper PPE and social distancing were maintained by AQD staff throughout the entire inspection.

The weather conditions on May 12, 2021 were approximately 57°F, fair with west-northwest winds at approximately 14 mph (www.weatherunderground.com).

A) Facility Description

Rosedale Memorial Gardens (Rosedale) is a human remains crematorium with the site being permitted to operate three (3) incinerators which are identified as Unit #1 (PTI 61-74), EUCREMATORY2 (PTI 67-08) and EUCREMATORY3 (PTI 188-19).

Compliance Evaluation

All three (3) units are natural gas fired. None of the stack heights or diameters were explicitly measured however, visually they appeared to meet the requirements specified in the PTIs.

1) PTI No. 61-74I

This permit limits opacity to 20% (Special Condition (SC) 5), requires the unit to be operated adequately and maintained properly (SC 6) in order to control emissions. Particulate Matter (PM) emissions are limited to 0.20 pounds per 1,000 pounds of flue gas for pathological waste (SC 7) and the facility is required to report any malfunctions that result in an emissions violation (SC 8).

At the time of the inspection this unit was operating, and no particulate emissions were observed. CR discussed maintenance and operations procedures with Mr. Burke and the facility conducts maintenance as required and is operating the unit as intended by the manufacturer. Compliance with the PM limit is demonstrated by the lack of visible emissions and proper operation and maintenance.

The afterburner temperature setpoint is set to 1,600°F. During the inspection it was operating at 1,568°F. Based on a review of circle charts, which was conducted onsite, the afterburner temperature appears to be maintained at or above 1,400°F while the main chamber is operating. Although not specifically called out in the PTI an afterburner temperature of 1,400°F is typically the minimum temperature required in order to meet PM emission limits.

2) PTI No. 67-08,

This PTI is for EUCREMATORY2 which is a Matthews International unit installed in 2008. This unit is subject to an emission limit (SC 1.1) of 0.2 pounds per 1,000 pounds of exhaust gas based on general condition (GC) 11 and GC 13. GC 11 limits opacity to 20% while GC 13 allows the department to require performance testing. No performance testing has been required and no opacity was observed during the inspection. However, this unit was in a cool down mode. Since there was no opacity and the unit appeared to be well maintained the emission limit appears to have been met. Appendix A of this PTI was discussed with Mr. Burke who was aware of them and ensured CR that they were being followed.

Only pathological waste is being combusted as required by SC 1.2. A device for monitoring (digital readout) and recording the afterburner temperature (circle charts) is installed and is being maintained as required by SC 1.5. Based on the circle charts the afterburner appears to be operating at or above the 1,600°F limit specified by SC 1.3 while the the main chamber is operating. Based on the circle charts and discussions with Mr. Burke no waste is combusted if the afterburner is not at the appropriate temperature. Per conversations maintenance is conducted as needed to ensure proper operation (SC 1.4). The unit appeared to be well maintained.

As required by SC 1.6 and 1.7 circle charts are being maintained and the required information such as time, description, and weights are being recorded on the circle charts. Circle charts were reviewed onsite.

3) PTI No. 188-19

This PTI is for EUCREMATORY3 which is a Matthews Environmental Solutions Unit installed in 2020. The requirements in this PTI mimic those in PTI 67-08 for EUCREMATORY2 with some additions. EUCREMATORY3 appears to be in compliance with the same requirements for EUCREMATORY2. Only the additional requirements for EUCREMATORY3 are discussed below.

EUCREMATORY3 is subject to a couple of additional material limits including a charge limit of no more than 750 pounds (SC II.2) and a pipeline quality fuel requirement (SC II.3). As noted above all three (3) units are natural gas fired only. Charge weights are noted on the circle charts and based on an onsite review of the circle charts charge weights are less than 750 pounds.

An operational limit of no more than 3,744 hours per any given 12-month rolling time period (SCIII.3) is in place for EUCREMATORY3. Operating hours are being maintained and the facility has not exceeded the limit.

Although the other two units are required to operate per manufacturer requirements which includes the use of a secondary combustion chamber (afterburner), SC IV.1 prohibits the operation

of EUCREMATORY3 unless the afterburner is installed, maintained, and operated in a satisfactory manner (SC IV.1). This unit appears to be well maintained, which is to be expected since it is new, and based on discussions with Mr. Burke, it is being operated as it should be. Per SC IV.3 the facility now must maintain a scale onsite for verifying weight of the charge. A scale is onsite.

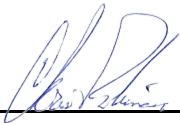
EUCREMATORY3 is subject to some additional Monitoring/recordkeeping requirements. This includes the requirement to complete calculations by the 15th day of the month (SCVI.1); the requirement to monitor and record the afterburner temperature continuously (SCVI.2); the requirement to keep the afterburner temperature data and make it available to the Department (SC VI.5); and the requirement to keep a record of all service, maintenance, and equipment inspections. The 15-day calculation requirement is standard PTI text and would apply to all records needed by the PTI which would include temperature data and maintenance records. Temperature data (circle charts) was available and reviewed onsite. Since EUCREMATORY3 is new a maintenance log has not been created. CR discussed this with Mr. Burke informing him that since "proper maintenance" is part of the emission limit a maintenance log would be good to keep for all three units, which he said he would do.

According to Mr. Burke staff are following the requirements in Appendix A of this PTI. Although similar to Appendix A for PTI 67-08 Appendix A for EUCREMATORY3 (Appendix A No.3) prohibits the combustion of waste until the secondary combustion chamber is at or above 1,600°F and that temperature is required to be maintained for the duration of the burn cycle. The programming for EUCREMATORY3 does not allow for the unit to be operated in any other way. Although this is not specified in the other two (2) PTIs for this facility it is required in order to be able to meet the PM and opacity limits. Lastly the Appendix A for EUCREMATORY3 specifies that the facility must follow the manufacturers operation and maintenance guidelines. Per Mr. Burke this will be done.

B) Compliance Determination

Based on a review of this facility's records and observations at the time of the inspection, Rosedale Memorial Cemetery appears to be in compliance with applicable air quality rules and regulations including the requirements established in PTI 61-74I, PTI 67-08, and PTI 188-19.

NAME

DATE 5/24/2021

SUPERVISOR

