

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

N621148338

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|---|-----------------------------------|---------------------------|
| FACILITY: AUTUMN VALLEY CREMATORY | | SRN / ID: N6211 |
| LOCATION: 1670 O'ROURKE BLVD, GAYLORD | | DISTRICT: Gaylord |
| CITY: GAYLORD | | COUNTY: OTSEGO |
| CONTACT: Chris Wright | | ACTIVITY DATE: 04/04/2019 |
| STAFF: Sharon LeBlanc | COMPLIANCE STATUS: Non Compliance | SOURCE CLASS: MINOR |
| SUBJECT: unannounced, scheduled site inspection of crematory. Non-compliance with recordkeeping requirements. Facility has proposed corrective actions. sgl | | |
| RESOLVED COMPLAINTS: | | |

INTRODUCTION

On April 4, 2019, AQD District Staff conducted an unannounced, scheduled site inspection of the Autumn Valley Crematory Facility located at 1670 O'Rourke Blvd, Gaylord, Michigan (N6211). One Permit to Install (PTIs) is associated with the Facility (12-97). 12-86l was of record for American Vault, voided in 2017. Mr. Chris Wright provided a site tour and answered questions regarding the Facility operations.

No previous site inspection record is present in MACES or District Files.

FACILITY

Located in an industrial park just off of Dickerson Road, and bounded to the north and west by the Otsego County Airport. The property consists of one building on Otsego County Property Appraiser Parcel No. 000-920-00. At the time of the inspection, the Facility is of record as being owned by Chris Wright. A review of aerial photographs indicated that the Facility was constructed sometime after May 1994.

The Facility contains a front office area, as well as the incinerator room, all of which take up no more than half of the building space. The remainder of the building is dedicated to concrete vaults for burial.

Weather conditions at the time of the site inspection consisted of partly cloudy skies, temperatures of apx. 40 degrees, and no winds. The Facility was operating at the time of the site visit, no visible emissions were noted from the single stack for the Facility.

PERMITTING

A review of District files and AQD Databases indicated that one permit was of record for the Facility under Autumn Valley Crematory. The referenced permit is summarized below:

| Permit No. | Application Date | Issuance Date | Comment |
|------------|------------------|---------------|---------|
| 12-97 | December 1, 1996 | March 7, 1997 | |

In addition, permit 12-86l was issued to American Vault Services, location unknown in Gaylord, Michigan.

REGULATORY

A review of Permit application review and engineer notes indicated that the facility was evaluated for PM10 emissions. Classifications based on Potential to Emit (PTE) and other significant comments:

| PARAMETER | CLASSIFICATION | COMMENT |
|-----------|----------------|--|
| NOx | Minor | emissions identified by applicant |
| SO2 | Minor | emissions identified by applicant |
| CO | Minor | emissions identified by applicant |
| Pb | Minor | not identified for source |
| PM | Minor | emissions identified by applicant, only pollutant identified in engineer notes at time of permitting |

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|------|-------|--|
| VOC | Minor | |
| HAPs | Area | |

Applicable Federal Requirements:

| | | |
|---------------|----------------|--------------------------------|
| EMISSION UNIT | 40 CFR SUBPART | TITLE |
| Source | Part 70 | State Operating Permit Program |

Pathologic incinerators are exempt from National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR, Part 63, subpart EEE, Hazardous Waste Incinerators since they are not permitted to burn hazardous waste.

Discussions with permitting staff indicated that pathologic Incinerators (Human or pet crematories) if they are burning 90% pathological waste on a quarterly basis are exempt from New Source Performance Standards (NSPS). 40 CFR Part 60, Subparts include:

- Subpart Ce – Existing Hospital/Medical/Infections Waste Incinerator constructed on or before June 20, 1996
- Subpart Ec – New Hospital/Medical/Infectious Waste Incinerators (constructed after June 20, 1996)
- Subpart AAAA – Small Municipal Waste Combustors
- Subpart CCCC – Commercial, Industrial Solid Waste Incinerators
- Subpart DDDD - Commercial and Industrial Solid Waste Incinerator Units for Existing Sources. Part 60
- Subpart EEEE - Solid Waste Incinerator Units with construction after December 9, 2004 (or modifications and reconstruction commenced after June 16, 2006, and
- Subpart FFFF - Solid Waste incinerator Units constructed on or before December 9, 2004,

EQUIPMENT

Permitted equipment as described by the permit applications and engineer notes is summarized below:

| | |
|-------------------------------------|--|
| Permit No. | 357-93 |
| Make | Power-Pak II |
| Model | IE43-PPII |
| Class | VI |
| Rated Capacity | 100 lb/hr |
| Estimated usage | 1000 cremations/yr 2500 hr/yr 80 TPY Type 4 waste 12 TPY Type 0 waste |
| Type of Waste | 0 and IV |
| Max temperature (secondary chamber) | 1600 degrees |
| Hold time in secondary | 1 second |
| Control device | no add on control device |
| Fuel | Natural Gas |

The facility reports that in comparison for the 1000 cremations for year applied for in the permit application. The Facility conducts approximately 200/year.

COMPLIANCE

Compliance status for the facility has been based on information provided during the April 4, 2019 site inspection.

District files contain a copy of a complaint dated December 20, 2006. The complainant reported dark smoke and fallout from the Facility and reported that it had happened before. The Facility has not been issued a VN or consent order of record. The facility is not required to report annual emissions under the MAERS reporting program.

PTI 12-97 – The referenced permit was issued for 150 lb/hour incinerator installed in 1986. Special conditions associated with the equipment include primarily operational and material limits. It should be noted that Facility Staff indicated that the 150 lb/hr reflects the operational load rate. The Facility reports that they use it more for determination of operational times, and that with inclusion of the preheating time unit operation averages 2-3 hours per person.

OPERATION LIMITS - The permittee shall not operate the incinerator unless all provisions of Rule 301 are met. (SC 17) The referenced rule limits the density of Particulate Matter (PM) emissions and is often evaluated by opacity of the emissions from the stack. In the case of the Facility and PTI 12-97, SC 14, sets a VE limit of 20% based on a 6-minute average. District Staff observed the stack associated with the incinerator, and no visible emissions were noted either during the preheating of the secondary combustion chamber or during firing of the primary combustion chamber.

Other operational conditions, include:

- The permittee shall not operate the incinerator unless the secondary combustion chamber is preheated for not less than 30 minutes prior to firing of the primary combustion chamber (SC 19)
- Incinerator shall not be operated unless the secondary combustion chamber is operating at a minimum of 1600 degrees Fahrenheit and a minimum retention time of 1.0 seconds. (SC 18)

The Facility reports that operating conditions are preset, with respect to the operational chamber temperatures and retention times. In addition, the incinerator has a preset for 30 minutes of preheating, prior to firing of the primary combustion chamber in compliance with permit conditions.

MATERIAL LIMITS -- PTI 12-86I requires that the collected ash is disposed of in a manner that minimizes the introduction of air contaminants to the outer air. (SC17) The Facility reports that ash inside the incinerator's primary combustion chamber and grates are swept forward to a collection chute, and drops into a collection pan in the collection area. Staff report that the incinerator fan draws any dust/ash up and into the secondary combustion chamber during the dust collection activities, preventing introduction into outer air. Materials collected in the collection pan, are taken to a packing area with hood, where they are encapsulated in plastic, and then boxed for return to the client.

Materials that may be burned in the incinerator are limited to Type 0 and Type IV waste (SC 21), which includes:

- Trash, a mixture of combustible waste such as paper, cardboard, wood boxes and combustible floor sweepings from commercial and industrial activities. It may contain up to 10% by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags and plastic or rubber scraps.
- Human and animal remains, consisting of carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds and similar sources.

The Facility reports that they only incinerate the later grouping (Type IV) of approved materials.

EMISSION LIMITS – Limits associated with 12-86I include the following:

- Particulate emissions from the incinerator shall not exceed 0.20 lbs per 1,000 lbs of exhaust gases, corrected to 50% excess air. (SC 13)
- Visible emissions from the incinerator shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a). (SC 14)

As previously indicated, no visible emissions were reported during observations conducted during pre-heating of the secondary combustion chamber and after firing of the primary combustion chamber.

- Exhaust gases from the incinerator shall be discharged unobstructed vertically upwards from a stack with a maximum diameter of 20-inches at exit point and no less than 18 ft above ground level (SC 20)

Based on estimates at the time of the site inspection, the stack is no less than 20 feet above ground level and appears to have less than an apx. 20-inch diameter. In addition, it appears that the stack may have been raised at some point since permitting.

TESTING ACTIVITIES – Verification of particulate emission rates from the incinerator by testing at owners expense may be required for operating approval (SC 15). However, District files do not contain copies of a request for testing, therefore the condition is not applicable at this time.

OTHER REQUIREMENTS- In addition to operational conditions listed, the Facility is required to conduct proper operation and adequate maintenance of the incinerator to control emissions (SC 16). Recommended activities are attached to the PTI 12-97. The Facility reports having at least yearly visits by appropriate service staff. The most recent visit was in March, and the service staff completed a control check and recapped the floor of the primary combustion chamber. The Facility reports that at their present level of activities onsite, that more frequent visits for maintenance has not been necessary, though if any work is noted to be required, it is done in a timely manner.

Recordkeeping requirements include monthly records of the number of cremations performed in each incinerator and the average temperature in the secondary chamber for each cremation. Records are required to be retained and made available for at least two years (SC 22) At the time of the April 4, 2019, site inspection, Facility Staff indicated that they had not been maintaining records. They report that since the violation had been brought to their attention at their Prudenville, Michigan Facility, that they have determined that using the chart recorders will be a cost effective method, as it will show the number of firings per day, as well as the temperature of the secondary chamber, as a thermocouple is located on the secondary combustion chamber. The chart recorder paper would be changed out at each use, and the used chart put into a file for record keeping purposes. Follow up visits will be conducted later in the calendar year to confirm that the proposed recordkeeping activities have been initiated.

Summary

On April 4, 2019, AQD District Staff conducted an unannounced, scheduled site inspection of the Autumn Valley Crematory Facility located at 1670 O'Rourke Blvd, Gaylord, Michigan (N6211). One Permit to Install (PTIs) is associated with the Facility (12-97). 12-86I was of record for American Vault, voided in 2017. Mr. Chris Wright provided a site tour and answered questions regarding the Facility operations.

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The facility was noted to be operating in general compliance with their permit, with the exception of recordkeeping requirements, which required monthly records of the number of cremations performed in each incinerator and the average temperature in the secondary chamber for each cremation. Records are required to be retained and made available for at least two years (SC 22). At the time of the April 4, 2019, site inspection, Facility Staff indicated that they had not been maintaining records. They report that since the violation had been brought to their attention at their Prudenville, Michigan Facility, that they have determined that using the chart recorders will be a cost effective method, as it will show the number of firings per day, as well as the temperature of the secondary chamber, as a thermocouple is located on the secondary combustion chamber. The chart recorder paper would be changed out at each use, and the used chart put into a file for record keeping purposes. Follow up visits will be conducted later in the calendar year to confirm that the proposed recordkeeping activities have been initiated. No violation notice will be issued at this time.

MACES- Activity Report

NAME Sharon LeBlanc

DATE 4/8/2019

SUPERVISOR SN