

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

P037071512

FACILITY: PARTRIDGE ENTERPRISES, INC.		SRN / ID: P0370
LOCATION: 9193 W HOUGHTON LAKE DR, HOUGHTON LAKE		DISTRICT: Gaylord
CITY: HOUGHTON LAKE		COUNTY: ROSCOMMON
CONTACT:		ACTIVITY DATE: 02/23/2024
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: FY 2024 scheduled minor site inspection. sgl		
RESOLVED COMPLAINTS:		

On Friday, February 23, 2024, AQD District Staff conducted a FY2024 scheduled site inspection of the former Partridge Enterprises (P0370). The referenced Facility is a pet crematory located at 9193 West Houghton Lake Drive (AKA N. Harrison Road), Houghton Lake, Roscommon County, Michigan. The building is located on the west side of the road, just past the Mary Road intersection. It presently is operated as "Trusted Journey", and a sign is located on the building. The Facility operates under Permit to Install (PTI) 120-12A.

A supplemental verification visit was conducted on Friday, April 12, 2024, to verify installation of two chart recorders found to be required as part of the February site visit.

District Files identified previous site inspection as being conducted on May 4, 2021.

Onsite at the time of the site inspection weather conditions included sunny skies, calm winds and temperatures of approximately 45 degrees.

One unit (EUCREMATORY04) was operating during the inspection, with the two remaining units (EUCREMATORY1 and EUCREMATORY5) in various stages cool down.

Facility Description

The former Partridge Enterprises Facility, located in Houghton Lake, Michigan is one of multiple facilities formerly operated/owned by Gateway Pet Memorial and which provides animal cremation services. Facility staff indicated that their services are provided to specific pet clinics. They are not open to the general public or provide walk-in services. Should a local agency or clinic wish to use their services, they would need to contact the general manager and make arrangements.

Pets that are serviced at the Facility are delivered in leakproof containers, each are labeled with a barcode, which provides per owner information, weight, etal. Weights for each pet are confirmed with an onsite weight scale. The barcodes are scanned, the weights corrected if necessary, and the unit to be used for the cremation identified. The system will determine the length of time required for cremation of the charge. This system was reported to be a relatively new system during the 2021 site inspection.

The facility was noted to be neat, clean and organized. No accumulations of dust or ash were noted, nor were odors that might suggest improper handling of charge. The cremation units are free standing units. Each unit had log sheets documenting

unit use, and indicated that date, start time, length of burn and weight of charge. In addition, documentation of pre-operation checks for each unit were maintained. The handwritten data is a continuation of documentation kept by the facility prior to implementing the barcode system. Chart recorders are also used to document operation of the unit, and indicate the date, time, length of operating period and secondary chamber temperatures.

An 8-10 hour day is reported to result in 3 cremations per day, per unit

Equipment

The Facility is permitted for a total of three NG-fired, Animal “Pet” cremation units. Initial operations at the Facility utilized two cremation units (EUCREMATORY01 and EUCREMATORY4). The third added at a later date.

All three EUs are used-equipment that was purchased for installation and use at the Houghton Lake Facility. Per the permit application the units consist of:

The Facility reports Manufacturer Operation Manuals for each of the units are maintained onsite for review.

At, the time of the February 23, 2024, site inspection, two units (Units 1 and 4) had chart recorders to document not only secondary chamber temperatures, but also the date and time of each operation of the unit. One of the two chart recorders (Unit 4) was reading (and recording approximately 400 degrees lower than the digital readout). All three units had digital readouts with setpoints for chamber temperatures, chamber temperatures and length of time for ongoing burn period was noted at the time of the inspection.

Installation of two new chart recorders was completed on April 11, 2024, to address compliance issues with SC IV.2 and VI.2 thru VI.4, which address continuous recording of temperatures in the secondary combustion chamber. Installation was verified by AQD Staff on April 12, 2024.

Facility staff reported that there are plans to replace the Thermo-Tec (Unit 3/EUCREMATORY4) with another model in the future.

No visible emissions were noted at the time of the inspection, emissions from the stacks were described as heat shimmers. No holes were noted in the stacks. It was noted that the Facility has a live feed camera showing emissions out of the stacks, so that operators can in real time identify emissions issues if any from the stacks.

Permit History

The Facility is a true minor source and is subject to permitting under Rule 201. Records indicate that the EUs in operation at the Facility are used cremation equipment, purchased and relocated to the Houghton Lake Facility for operation.

Two PTIs are of record for the Facility and are summarized below:

PTI No.	Issued	Comment
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120-12	8/24/2012	Issued for EUCREMATORY01 and EUCREMATORY4. EUs Previously covered under PTIs 33-09A and 134-96A and relocated to present site.
120-12A	8/13/2016	EUCREMATORY05 added to PTI

At issuance of PTI 120-12A, PTI 120-12 was voided.

Comments made by Facility staff during the February 23, 2024, site inspection indicated that the Facility has plans to replace one of the existing units in the near future. District Staff reminded the Facility that permitting for the equipment would most likely be required.

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.

Previous 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.

It should be noted that a review of PTI 120-12A indicates that all three crematory units are limited to burning of only pathologic waste. (SC I.1) Compliance with that

condition would guarantee they meet the exemption. Discussions with Facility Staff indicates that materials burned in the permitted units is limited to pathologic waste as previously described. The only additional material would include the leakproof packaging and paper labeling each charge is packaged in.

Compliance –

Records indicate that no complaints or compliance issues are of record since the May 4, 2021, site inspection.

In addition, the Facility is not required to submit annual emissions under the MAERs system. Nor are stack testing or reporting requirements required of the Facility under the existing PTI. A review of permit conditions indicated that all three cremation units are required to meet the following conditions:

Emission Limits -

- SC I.1 limits PM emissions to 0.20lb/1000 lbs of gas.

Compliance with this condition would require verification by stack testing. Stack testing is not required under the PTI, and no records requesting testing exist in the District Files.

Compliance with the emission limits may be indicated by compliance with General Condition 11 which limits visible emissions to a 6-minute average of 20%. No VEs were identified onsite at the time of the February 23, 2024, site inspection. Operators frequently check stack emissions to confirm proper operation of the units. the company has installed a camera(s) so that the facility staff can more easily check stack emissions over the course of the day.

Onsite staff are not certified VE readers, and presently do not document any of their observations. As previously indicated no VEs were observed at the time of the site inspection. The camera and associated flat screen TV (installed inside the cremation room and easily visible to operators) were operating at the time of the site inspection.

Material Limits-

- SC II.1 limits the permittee to only burning pathological waste.

Only pathological waste is burned. The source provides a cremation service to pet clinics in Michigan. Animals arrive in in leak proof bags, with barcoded labels, ready to be cremated.

- SC II.2 limits the charge to be put in each cremation unit to the maximum weight specified by manufacturer.

As indicated previously each of the different cremation units is made by a different manufacturer, and each model has a maximum load. The operator onsite indicated that he routinely sets the charge at approximately half the maximum load indicated:

- EUCREMATORY001 – 300 lbs
- EUCREMATORY4— 750 lbs

- EUCREMATORY05 -- 200 lbs

A review of records maintained by the Facility indicated that the charge weights for each load were below the charge limits specified above. In addition, the barcode system monitors the total charge weights for each unit and determines the appropriate burn times based on loads.

- SC III.3 limits the fuel to be burned to natural gas.

Facility records indicate that only NG is used as fuel for the three crematory units operated onsite. The incoming lines are visible at the front door of the facility.

Process/Operational Restrictions-

- SC III.1 requires a minimum temperature of 1600 degrees F in the secondary chamber must be maintained. In addition, the following minimum retention times in the secondary chamber must be met.
 - EUCREMATORY01 – 1 second
 - EUCREMATORY4 – 0.57 second
 - EUCREMATORY05 – 1 second

Facility staff indicated that the cremation units have maintenance activities every 6-12 months to ensure proper operation of the units per the manufacturer minimum temps and retention times. Facility staff report that the units were serviced about 4 months ago, with a new control installed on one unit. The next visit is tentatively scheduled for March 2024.

In order to show compliance with the referenced operational condition, the Facility must also be in compliance with SC IV.2 which requires each cremation unit be installed with a device to continuously record and monitor the temperature in the secondary chamber and SC VI.2 which requires keeping continuous records of the temperature in the secondary chamber. As previously indicated, at the time of the February 23, 2024, site visit all three units have digital displays to continuously monitor. But only two had chart recorders that continuously record temperatures in the secondary chamber. A chart recorder for the third cremation unit was installed on April 11, 2024, and another was installed to replace the incorrect chart recorder. Installation was verified on April 12, 2024. Bringing all three units into compliance. Set point for the secondary chamber is 1600 degrees.

- SC III.2 requires that the incinerator be installed, operated and maintained in a satisfactory manner to control emissions. Recommended procedures are contained in Appendix A of PTI 120-12A.

The incinerators appeared to be installed and operating properly. Discussions with Facility staff indicated that with the exception of quarterly inspections to check and service all the equipment, which are conducted every 6-12 months. The next scheduled event was March 2024. The Facility operates in general compliance with the Incinerator Operation and Maintenance Guidelines in Appendix A.

Design/Equipment Parameters—

- SC IV.1 the permittee shall not operate the EU without secondary chamber and afterburner operating.

The units are operated as required. Temperature set points were reviewed and readings show compliant temperatures. District Staff discussed the importance of maintaining the 1600 degree secondary chamber temperatures to show compliance, and Facility staff reported that they can adjust the setpoints should the temperature monitors show that the secondary chamber temperatures drop below the 1600 degree threshold.

- SC IV.2 requires the permittee to install a device to continuously monitor and record the temperature in the secondary combustion chamber.

At the time of the previous inspection (2021), chart recorders were documented for all three units. At the time of the February 23, 2024, site inspection only two of the units were noted to have chart recorders. The lack of a chart recorder on one of the cremation units resulted in failure to continuously record the temperature in the secondary combustion chamber for that unit, and the violation was discussed with the Facility, as were the actions to correct the situation. Follow-up emails with the Facility on March 8th and again on April 2-3 resulted in a chart recorder being installed on April 11, 2024.

The charts document the date, time, and temperature for each burn. Charts for the year are maintained onsite. Prior charts are sent to the company office for storage. 5 years worth of records must be maintained by the Facility, though not necessarily at the Houghton Lake Facility.

- SC IV.3 must have a properly calibrated scale for weight verification.

A calibrated scale was present for charge weight. The Facility reports that they verify the weight of each charge prior to cremation, and the weight records in the barcode system are corrected.

Monitoring/Recordkeeping:

- SC VI.1 requires that documentation for the month be completed and available for review by the 15th day of the following month.
- SC VI.2 through VI.4 requires documentation of temperature in the secondary combustion chamber, duration of each burn, description and weight records for each burn to be maintained.

As mentioned previously, the temperature of the secondary combustion chamber is monitored continuously with a digital monitor, and is both monitored and recorded continuously through the use of a chart recorder. With the April 11, 2024, installation of replacement chart recorder for two units (one reading improperly and the other being missing) all three units are now continuously recording the secondary chamber temperatures and are in compliance with permit conditions.

Daily records of the duration of the burn and description/weight of the animal were reviewed onsite as part of the February 23, 2024, site visit and were found to be in compliance with permit conditions.

At the time of the February 23, 2024, site visit the review of records indicated that the chart recorder for EUCREMATORY4 was recording temperatures of approximately 400 degrees off, 1250 degrees rather than the 1650 reported digitally. The Facility indicated that they would check into the discrepancy. Which was corrected on April 11, 2024, with the installation of a replacement chart recorder.

- SC VI.5 requires maintenance records be kept for all repair and maintenance activities associated with the crematory units.

Records are maintained onsite and at the company office meeting permit conditions.

- SC VI.4 of EUCREMATORY05 only requires quarter basis records of time when only pathological waste is burned in the incinerator per 40 CFR 60.50c(b).

Only pathological waste is accepted by and burned in the cremation units. Notes in the eval form indicated that compliance with the above VI.1-VI.5 is considered compliance with this condition.

Stacks-

Stack requirements for the three cremation units are identified below:

EU	Facility Unit ID	Max. Stack Diameter (inches)	Minimum Height (Ft above land surface)
EUCREMATORY01	Unit 2	16.15	27
EUCREMATORY4	Unit 3	12.5	18.5
EUCREMATORY05	Unit 1	12	18

Facility staff report that no modifications of the stacks have occurred since installation/permitting. Based on visual estimation, the stacks appear to meet the requirements of the permit.

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Installation of a chart recorder for third unit and a replacement chart recorder for the one that was incorrectly recording a lower temperature was completed on April 11, 2024, to address compliance issues with SC IV.2 and VI.2 thru VI.4, which address continuous recording of temperatures in the secondary combustion chamber. Note that this installation was verified by AQD Staff on April 12, 2024.

Based on observations at the time of the February 23 and April 12, 2024 site visits, and documentation maintained by the Facility, the Facility is in general compliance with permit conditions.

NAME Maureen I. LeBlanc

DATE 5-9-24

SUPERVISOR Shane Nixon