

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

P037057964

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: 05/04/2021
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Onsite inspection and records review of Partridge Enterprises Cremation Facility as part of FY2021 assigned inspections. sgl		
RESOLVED COMPLAINTS:		

On May 4, 2021, AQD District Staff conducted a FY2021 scheduled site inspection of 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 an unmarked building located on the west side of the road, just past the Mary Road intersection. The Facility operates under Permit to Install (PTI) 120-12A.

District Files identified previous site inspections conducted on December 9, 2014 and September 26, 2017.

Onsite at the time of the site inspection weather conditions included temperatures of approximately 45 degrees, overcast skies with potential rains forecast.

Two units (EUCREMATORY01 and EUCREMATORY05) were operating during the inspection, with the third (EUCREMATORY4) in cool down.

### Facility Description

The Partridge Enterprises Facility, located in Houghton Lake, Michigan is one of multiple facilities operated by Partridge Enterprise and provides animal cremation services. Initial operations at the Facility utilized two cremation units (EUCREMATORY01 and EUCREMATORY4). 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 is reported to be a relatively new system.

The facility was noted to be neat, clean and organized. Accumulations of dust or ash were not noted, nor were odors that might suggest improper handling of charge. The cremation units are free standing units. Each unit had log sheets documenting each use of the unit, and indicated that date, start time, length of burn and weight of charge. 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 each 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. Facility Staff report that winter months are the busiest, and indicated that they believed this was the result of the frozen ground.

**Equipment**

-

The Facility is permitted for a total of three NG-fired, Animal “Pet” cremation units. All three EUs represent used equipment that was purchased for installation and use at the Houghton Lake Facility. Per the permit application the units consist of:

Unit	Facility ID	Manuf. Date	Maximum Charge Wt. (lbs)	Charge Rate (lb/hr)	Install Date
EUCREMATORY01 Facultatieve Technologies ISI -27 Crematory	Unit 2	2005	300	75	8/24/2012
EUCREMATORY4 Therm-Tec Model G-8-P Crematory	Unit 3	2004	750	125	8/24/2012
EUCREMATORY05 B&L Cremation Systems BLP200	Unit 1	2007	200	75	9/22/2017

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

Each unit had a chart recorder to document not only secondary chamber temperatures, but also the date and time of each operation of the unit. 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.

No visible emissions were noted at the time of the inspection, emissions from the two stacks would both be best described as heat shimmers. The older stacks were oxidized, but no holes were visible that would indicate that repairs were needed.

### Permit History

Classified as a true minor source the Facility is subject to permitting under Rule 201. A review of records indicated 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
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.

### 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. The only additional material would include the leakproof packaging and paper labeling each charge is packaged in.**

**Compliance –**

**Readily available records indicate that since the September 26, 2017 site inspection no complaints or other compliance issues are of record. In addition, the Facility is not required to submit annual emissions under the MAERs system.**

**No stack testing or reporting requirements are 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%. A discussion with Facility staff indicated that they frequently check stack emissions to confirm proper operation of the units. Onsite staff are not certified VE readers, and presently do not document any of their observations. AQD District staff discussed initiating use of a spiral notebook or spreadsheet that would record the date, time, and stack observations to document proper operation of the unit(s). Discussions indicated that the company have plans to install cameras so that the facility staff can more easily check stack emissions over the course of the day.**

#### **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 in leak proof bags, with barcoded labels, ready to be cremated were noted onsite.**

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

- EUCREMATORY001 – 300 lbs
- EUCREMATORY4— 750 lbs
- EUCREMATORY05 -- 200 lbs
- 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.**

**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. The most recent visit having been the previous month.**

**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 the units have digital displays and/or chart recorders to continuously monitor and record temperatures in the secondary chamber. Set point for the secondary chamber is 1650 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 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.

**Each cremation unit is equipped with a circular chart recorder. 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 15<sup>th</sup> 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 and recorded continuously. Daily records of the duration of the burn and description/weight of the animal were reviewed onsite.**

- 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.

-

Summary

-

On May 4, 2021, AQD District Staff conducted a FY2021 scheduled site inspection of 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 an unmarked building located on the west side of the road, just past the Mary Road intersection. The Facility operates under Permit to Install (PTI) 120-12A.

Onsite at the time of the site inspection weather conditions included temperatures of approximately 45 degrees, overcast skies with potential rains forecast.



Two units (EUCREMATORY01 and EUCREMATORY05) were operating during the inspection, with the third (EUCREMATORY4) in cool down.

The Partridge Enterprises Facility, located in Houghton Lake, Michigan is one of multiple facilities operated by Partridge Enterprise and provides animal cremation services. Initial operations at the Facility utilized two cremation units (EUCREMATORY01 and EUCREMATORY4). 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 is reported to be a relatively new system.

Monitoring and recordkeeping required by the permit have been met by the Facility. Records reviewed appear to indicate general compliance with permit conditions. Discussions with Facility staff included implementation of documentation of observations staff make of stack emissions to verify proper operation of the units, and the importance of not dropping below the 1600 degree temperature threshold for the secondary chambers.

Based on observations at the time of the site inspection, and documentation maintained by the Facility, the Facility is in general compliance with permit conditions.

Sharon LeBlanc Digitally signed by Sharon LeBlanc  
Date: 2021.06.17 12:12:14 -04'00'

Shane Nixon Digitally signed by Shane Nixon  
Date: 2021.06.17 12:11:09 -04'00'

NAME \_\_\_\_\_

DATE \_\_\_\_\_

SUPERVISOR \_\_\_\_\_

