

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

P137173472

FACILITY: UNIVERSAL CASKET COMPANY		SRN / ID: P1371
LOCATION: 17664 CHAIN LAKE STREET, CASSOPOLIS		DISTRICT: Kalamazoo
CITY: CASSOPOLIS		COUNTY: CASS
CONTACT: Edward Jones ,		ACTIVITY DATE: 07/26/2024
STAFF: Mariah Scott	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: On July 26, 2024, Air Quality Division staff conducted an unannounced air quality inspection of the Universal Casket Company (P1371) Universal Casket Company. A violation notice will be issued to the facility concerning the low minimum operating temperatures of EUCREMATORY1.		
RESOLVED COMPLAINTS:		

On July 26, Air Quality Division (AQD) staff (Mariah Scott, hereafter Staff) conducted an unannounced air quality inspection of the Universal Casket Company (hereafter Universal Casket; P1371) 17664 Chain Lake Street, Cassopolis, MI. Staff arrived at 10 am, made initial contact with Edward Jones, Sr., and stated the purpose of the visit. Outside Universal Casket, no odors or visible emissions were detected. EUCREMATORY1 was also not running at the time of the inspection. The weather was a sunny and warm. During the inspection, Staff were accommodated by EJ Jones and Edward Jones, Sr. Staff observed the emission units and pollution control equipment at the Universal Casket Company as part of the onsite inspection.

Universal Casket is a human crematorium. The Universal Casket Company has an estimated 5 staff, operating 9 hours a day from Monday- Friday.

Staff asked and Universal Casket stated that the Universal Casket Company does not have any boilers, emergency generators, or cold cleaners. Universal Casket has yet to be inspected for their compliance with Permit PTI 65-23.

Staff observations, information stated by Universal Casket, and review of the records provided by Universal Casket during and following the inspection are summarized below:

EUCREMATORY1:

Cremation Systems, with a cremation unit and large refrigerator. This unit was not running at the time of the inspection.

Emission Unit ID	Emission Unit Process Equipment Description	Control Devices	Associated stacks
EUCREMATORY1	Cremation Systems CFS-3000 Fuel Type: Natural Gas, but using Propane currently Maximum Charge: 1000 Pounds Burn Rate: 250 Pounds/Hour Charge Type: Human Installed May 1, 2023	Secondary combustion chamber with afterburner.	SVCREMATORY1

- I. Emission Limits (This was not assessed during the inspection)
- II. Material Limits (Daily case records)

Material	Appear Compliant?
1. The permittee shall not burn any waste in EUCREMATORY1 other than the following: (40 CFR 60.51c)	

Material	Appear Compliant?
Pathological wastes—As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding. This emission unit shall burn only human pathological waste and associated materials.	Yes, as confirmed with facility and with the daily case records
2. The permittee shall not charge more than 1000 pounds per charge in EUCREMATORY1, where charge is the total weight of the material placed in the incinerator to be combusted.	Yes, daily case records have highest weight of a single charge at 686 pounds.
3. The permittee shall not burn any fuel in EUCREMATORY1 other than natural gas.	No, so the facility has contacted AQD Permits department to update their permit.

EUCREMATORY1 was designed to use natural gas. However, the area the facility is located in is too remote for natural gas pipelines. So, they began using propane. The facility is updating their permits to reflect this change, so no violation notices will be sent at this time.

III. Process/operational restriction(s) (Records provided included temperature, service, and maintenance records)

Permit requirement	Appear Compliant?
1. The permittee shall not combust waste in EUCREMATORY1 unless a minimum temperature of 1600°F and a minimum retention time of 1.0 second in the secondary combustion chamber are maintained.	No, only 3 of the 23 records provided by the facility show an after burner temperature above 1600°F during the entire combustion cycle of the remains. This is approximately 25 minutes after the machine is turned on, when the facility reports putting the remains into the chamber, till the end of the combustion.
<p>2. The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EUCREMATORY1. A list of recommended operating and maintenance procedures is specified in Appendix A.</p> <p>Appendix A:</p> <ol style="list-style-type: none"> Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements. --Yes Clean grates before each day's operation (more often if necessary) and dispose of the ashes properly. -- Yes and done after unit cools from last case of a day, see MAP description Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle. -- No, as discussed for III Process/operational restriction(s) 1. Do not overload the incinerator. Stay within the given loading rates and follow the manufacturer's instructions. --Yes Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire causing smoke. -- Yes, door only opened during operation if a malfunction was occurring Burn only the type of wastes that the incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste(s). --Yes 	Yes, besides described deviations to remedy (see individual responses to Appendix A items)

<p>7. Keep the combustion air adjusted according to the manufacturer's instructions. -- Yes, the machine takes corrective actions as described in MAP</p> <p>8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and flyash. -- Yes, the sensor and people are observing while machine running</p> <p>9. Post a copy of the manufacturer's manual and this Guideline near your incinerator. -- Yes, in main office and given to each employee</p> <p>10. Make quarterly inspections to check and service all of the equipment. If a qualified person is not available for proper inspections, a service contract with a reputable manufacturer is advisable. --Yes</p> <p>11. Follow manufacturer's operation and maintenance guidelines. --Yes</p>	
<p>3. The permittee shall not operate EUCREMATORY1 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 45 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.</p>	<p>No, the facility is operating with fewer cases than they anticipated, so the consistent cleaning described in their original MAP has not been necessary. The facility submitted a new version of their MAP on August 21, 2024 which bases maintenance schedules on frequency of use. This new MAP was accepted by the AQD. See below for details and service records.</p>

A violation notice will be issued to the facility concerning the low minimum operating temperatures of EUCREMATORY1.

Differences between the original MAP submitted to AQD, facility records and description by Edward Jones, and what is outlined in the new MAP approved by the AQD. No violation notice concerning the MAP will be sent at this time, as the facility has updated their MAP and less frequent maintenance was occurring due to less frequent use of EUCREMATORY1.

Procedure	Original MAP	Frequency based on records, cleaned as needed	Updated MAP Interval
Clean observation port on glass door	Weekly	Weekly to Monthly	Weekly
Clean the smoke detector lenses & calibrate	Monthly	Monthly	80 Cycles
Inspect refractory and insulation	Monthly	Monthly	80 Cycles
Inspect all hydraulic hoses	Monthly	Monthly	80 Cycles
Inspect & clean burner igniters (spark plugs)	Bi-Monthly	Twice a month	40 Cycles
Inspect & clean UV scanner	Bi-Monthly	Twice a month	40 Cycles
Clean the crematory	Bi-Monthly	Twice a month	40 Cycles
Check hydraulic fluid levels and replenish as needed	Semi-Annually	Part of regular check to operate, recorded doing once (February 3, 2024)	500 Cycles

Change all the thermocouples and protection tube	150 Cycles	Have not done yet, because have not done 150 Cycles	150 Cycles
Complete Manufacturer Inspection	Annually	Annual service planned for September 2024	Annually

Ignitor malfunction was serviced by Cremation Services December 2023.

IV. Design/equipment parameter(s) (Records provided included temperature records)

Permit requirement	Appear Compliant?
1. The permittee shall not operate EUCREMATORY1 unless the secondary combustion chamber with afterburner is installed, maintained, and operated in a satisfactory manner.	No, as discussed for III Process/operational restriction(s) 1.
2. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY1 on a continuous basis.	Yes
3. The permittee shall maintain a scale at the facility for the purpose of verifying the charge weight as required by SC II.2.	Yes

V. Testing/sampling (No testing was requested at this time.)

VI. Monitoring/recordkeeping (Records provided included temperature, daily case, quarterly usage, service, and maintenance records)

Permit requirement	Appear Compliant?
2. The permittee shall monitor and record the temperature in the secondary combustion chamber of EUCREMATORY1 on a continuous basis.	Yes
3. The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description and weight of the charge combusted in EUCREMATORY1, as required by SC II.2. The permittee shall keep all records on file and make them available to the Department upon request.	Yes
4. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, records on a calendar quarter basis of the periods of time when only pathological waste is burned in the incinerator, as required by 40 CFR 60.50c(b). The permittee shall keep all records on file and make them available to the Department upon request.	Yes
5. The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, secondary combustion chamber temperature records for EUCREMATORY1, as required by SC VI.2. The permittee shall keep all records on file and make them available to the Department upon request.	Yes
6. The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for EUCREMATORY1, including a log of all maintenance activities conducted according to the MAP (pursuant to SC III.3). The record shall include the description, reason, date and time of the service, maintenance, or inspection. The permittee shall keep all records on file and make them available to the Department upon request.	Yes

VII. Reporting: NA

VIII. Stack and vent restrictions

EUCREMATORY1 stack (SVCREMATORY1) appeared in compliance with PTI 65-23.

IX. Other requirement(s): NA

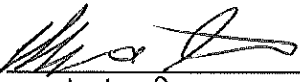
Exempt Emission Units

There were no non-permitted, exempt equipment at the Universal Casket Company.

Universal Casket reported no abnormal conditions, start-ups, shutdowns, or malfunctions that resulted in the emissions of hazardous or toxic air pollutants.

At the time of the inspection and based on a review of records obtained during or following the inspection, the Universal Casket Company appears not in compliance with Permit PTI 65-23. The Universal Casket Company will need to respond to their violation notice, abide by their updated MAP, and operate EUCREMATORY1 above the required minimum operating temperature in the future. -MWS

NAME


Mariah Scott

DATE

September 11, 2024

SUPERVISOR

