

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

N719757425

FACILITY: COPPER COUNTRY CREMATORY LLC		SRN / ID: N7197
LOCATION: 101 ISLE ROYALE SANDS, HOUGHTON		DISTRICT: Marquette
CITY: HOUGHTON		COUNTY: HOUGHTON
CONTACT: Michael Lorenzetti , Owner		ACTIVITY DATE: 03/04/2021
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced inspection to determine compliance with PTI# 155-02		
RESOLVED COMPLAINTS:		

### Description

This facility is a human pathological waste incinerator and is a minor source of particulate emissions. The facility operates a natural gas fired B&L Human Crematory (EUINCINERATOR), Model N-20AA, under PTI# 155-02. The business is in a commercial/industrial zone on the eastern side of the City of Houghton, Houghton County. There is a residential development directly to the west, US-41 to the south, Superior Block Company to the east, and the Portage Canal to the north. The company also operates a second pathological waste incinerator located in the same structure which is for animal cremation and operated under a separate PTI (#8-09).

### INSPECTION

I arrived at the facility and made contact with Mr. Lorenzetti. We discussed the PTIs for the facility and proceeded to inspect the units. Both units were operating at the time of my inspection.

### PTI# 155-02

### SPECIAL CONDITIONS

#### Emission Limits

##### SC 1.1

The facility has a PM emission limit of 0.20 lbs/1000 lbs of exhaust gases. These standards were verified using manufacturers test result data. EGLE AQD has not requested the permittee to conduct a performance test.

#### Material Usage Limits

SC 1.2 The facility is not allowed to burn any waste in EUINCINERATOR other than pathological wastes.

Only human remains are incinerated in this emission unit.

#### Process/Operation Limits

SC 1.3 The permittee shall not combust waste in EUINCINERATOR unless a minimum temperature of 1600 degrees Fahrenheit with a minimum retention time of 1 second in the secondary combustion chamber (afterburner).

The temperature is set to 1650 degrees in the secondary combustion chamber. Temperature is verified using a digital readout during operation and a circular temperature graph. Unit was in operation at the time of my inspection and temperature was confirmed. Temperature is steady at 1650 degrees F throughout the burn time. Retention time of 1 second in the afterburner is assumed.

**SC 1.4 Incinerator shall be installed, maintained and operated in a satisfactory manner to control emissions.**

The incinerator is installed and maintained according to manufacturers specifications. Mr. Lorenzetti and staff have recently re-bricked portions of the primary and secondary combustion chambers. Mr. Lorenzetti performs all regular and required maintenance of the unit according to manufacturer's specifications.

#### **Monitoring**

**SC 1.5 The permittee shall install, calibrate, maintain, and operate a device to monitor and record the temperature in the secondary combustion chamber of EUINCINERATOR on a continuous basis.**

There is a Honeywell DR4300 circle chart graph daily recorder installed on the unit to continuously record the temperature in the secondary combustion chamber. Mr. Lorenzetti logs the date and each individual burn ID directly on the charts.

#### **Recordkeeping/Reporting/Notification**

##### **SC 1.6**

**The permittee shall keep daily records of the description and weight of waste combusted in EUINCINERATOR.**

Mr. Lorenzetti keeps the daily records of weight combusted in a satisfactory manner.

##### **SC 1.7**

**The permittee shall keep secondary combustion chamber temperature records for EUINCINERATOR.**

Mr. Lorenzetti keeps the daily circle graph temperature records on site in a satisfactory manner.

#### **Stack/Vent Restrictions**

**SC 1.8 Stack dimensions must be a minimum 18" diameter and 18' above ground level and exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.**

Staff did not verify stack dimensions during this inspection; however the stack diameter and height are the same since when the unit was installed and the PTI was issued.

#### **APPENDIX A Incinerator Operation and Maintenance Guidelines**

**1. Requires a designated and trained operator for the unit.**

Mr. Lorenzetti is the designated operator.

2. Grates should be cleaned before each day's operation and ashes disposed of properly.

Grates are cleaned and ashes disposed of properly after each charge.

3. Preheat the unit without waste for at least 15 minutes.

The unit is preheated before a charge is loaded.

4. Do not overload the incinerator; load charge according to manufacturer's instructions.

Unit is loaded according to manufacturer's specifications.

5. Schedule charges to minimize opening the charging door as infrequently as possible.

Charge door is opened only for loading during operation. Once a charge has been incinerated, the unit is cleaned and (if necessary) a following charge is loaded as soon as the unit reaches operating temperature.

6. Burn only wastes the incinerator is approved to burn and incinerate according to manufacturer's instructions.

The unit only burns human pathological waste and is operated according to the manufacturer's specifications.

7. Keep the combustion air adjusted according to manufacturer's instructions.

The combustion air intake is factory-set by the manufacturer.

8. Observe the stack frequently and adjust operation as necessary to eliminate smoke and fly ash.

The stack is regularly observed during operation and does not require adjust. The unit operates quite efficiently.

9. A copy of the manufacturer's manual and this guideline should be posted near the incinerator.

The manual and guideline are stored adjacent to the emission unit.

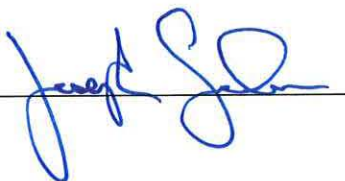
10. Make quarterly inspections to check and service all equipment.

The equipment is inspected more frequently than required and is serviced as necessary.

#### Conclusion

The facility easily meets the state limit of 0.20 lbs of PM per 1000 lbs of exhaust gases based on submitted test results from the manufacturer. The crematory is well-maintained on a regular basis and was recently overhauled in 2020, including new fire brick in portions of the unit. There have been no complaints and the facility appears to be in compliance with PTI# 155-02.

NAME



DATE

3/31/21

SUPERVISOR

