

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

P114567977

FACILITY: Alta Cremation and Services Inc.		SRN / ID: P1145
LOCATION: 13425 Capital Street, OAK PARK		DISTRICT: Warren
CITY: OAK PARK		COUNTY: OAKLAND
CONTACT: Kenneth Allen Sr. , Owner		ACTIVITY DATE: 06/08/2023
STAFF: Marie Reid	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled on-site inspection.		
RESOLVED COMPLAINTS:		

On Thursday June 8, 2023, I (Marie Reid) and Adam Bognar conducted a scheduled on-site inspection at Alta Cremation and Services Inc. located at 13425 Capital Street, Oak Park, Michigan. This facility is uniquely identified by the Air Quality Division with the State Registration Number (SRN) of P1145. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; and air use permit to install (PTI) number 115-20.

Background

PTI No. 115-20 was approved on October 20, 2020. Alta Cremation and Services (Alta Cremation) operates one B&L Cremation Systems Phoenix II-3 unit. The emission unit identified in PTI No. 115-20 as EUCREMATORY 1. The maximum charge is 1,000 pounds, a burn rate of 150 pounds per hour, and the charge type is human remains. This source is in a high population density area in Oak Park, Michigan. It is adjacent to light industrial properties and office buildings. Residential dwellings are located a few hundred feet to the west, across Coolidge Highway. There is no history of complaints against this source.

Inspection

I arrived on site at 10:00 AM with Adam and was greeted by Kenneth Allen Senior, the owner. Adam and I introduced ourselves, showed ID, and explained the purpose of the inspection. We then toured with facility with Kenneth.

PTI No. 115-20 – EUCREMATORY1

EMISSION LIMITS

Special Condition (SC) I.1: Limits Particulate Matter (PM) emissions to 0.20 lbs/1000 lbs of exhaust gases, corrected to 50% excess air. The furnace was not operating during this inspection. I observed the stack when I arrived at the site and did not observe any visible emissions. Kenneth stated that he goes outside to check the stack for visible emissions during almost every operation and has never witnessed visible emissions. There is no history of complaints against this source, therefore, an emissions test to verify compliance with the emission limit in SC I.1 has not been requested by the AQD.

MATERIAL LIMITS

SC II.1: States that the permittee shall only burn pathological wastes in the incinerator. Kenneth stated that only human pathological wastes are burned. No animal wastes are burned at this facility. Kenneth provided cremation logs that had the description and weight of each charge, and I confirmed only human pathological waste is burned.

SC II.2: Limits the charge size of each cremation to 1,000 lbs. I did not see any weight exceedances while reviewing the cremation records. Kenneth stated that they only burn one charge at a time, therefore, exceeding 1,000 lbs during a cremation is unlikely.

SC II.3: States that only natural gas shall be used to fuel EUCREMATORY1. Kenneth stated that only natural gas is used to fuel the furnace. I did not see any evidence of other fuels being used.

PROCESS/OPERATIONAL RESTRICTIONS

SC III.1: States the permittee shall not combust waste in the incinerator unless a minimum temperature of 1600°F and a minimum retention time of 1.0 second in the secondary combustion chamber are maintained. This incinerator was not operating at the time of the inspection; however, Kenneth showed me on the control panel that the primary burner will only turn on to combust waste if secondary combustion chamber temperature is at least 1650°F.

During the last inspection, Alta Cremations received a violation notice (VN) for operating the secondary combustion chamber less than the permitted minimum temperature of 1600°F. Kenneth explained to me that this occurred while an employee was replacing the chart paper and had mistakenly moved the chart recorder pen from the original recorded temperature of 1650°F to 1575°F. Kenneth stated that he informed the employee on how to properly change out the chart paper on the machine, and had not experienced this issue since. Based on records I reviewed, I did not observe temperature readings less than 1600°F since the last inspection.

SC III.2: Requires that the incinerator be installed, maintained, and operated in a satisfactory manner. While reviewing temperature logs, I noticed that on June 1, 2023, EUCREMATORY1 ran for 4 hours, automatically shut down, and was turned back on two hours later. Kenneth stated that the unit automatically shuts off after 2 hours of operation unless he resets the timer. During this specific cremation, the unit ran for two hours, Kenneth reset the timer for another two hours, then the unit auto shut off. After the unit had been off for approximately 2 hours, Kenneth opened the primary combustion chamber door and noticed that the charge had not fully combusted. He then turned the unit back on to finish combusting the charge to return all cremains to the family. Kenneth said that charges are typically fully combusted after four hours, which is why he did not check inside the chamber before it auto shut down. I recommended for Kenneth to check on the cremation more often before it auto shuts off. For the two hours that the unit was off, waste was still combusting from residual heat while the secondary combustion chamber and afterburner were off and not controlling emissions from the cremation system. This violation shall be cited in a violation notice.

During the last inspection, Alta Cremations received a VN for a mechanical malfunction in the primary combustion chamber (PCC) rear door which caused it to occasionally open about a half inch, which required the operator to manually close it again. I observed this same half inch gap in the PCC rear door during this inspection. Kenneth stated that B&L Cremation Systems informed him that this gap in the PCC rear door is a characteristic trait of that machine. I did not observe this door gap to have caused any temperature drops below 1600°F in the secondary combustion chamber that would affect the proper operation to control emissions from the cremation system.

DESIGN/EQUIPMENT PARAMETERS

SC IV.1: States the permittee shall not operate EUCREMATORY1 unless the secondary combustion chamber with afterburner is installed, maintained, and operated in a satisfactory manner. Kenneth stated that when the unit auto shuts down, this includes the secondary combustion chamber and afterburner. Due to the issue noted above in SC III.2, the facility is not in compliance with this condition. The secondary combustion chamber and afterburner must be operating while combusting waste. This violation shall be cited in a violation notice.

SC IV.2: Requires the permittee to install, calibrate, maintain, and operate a device to monitor and record the temperature in the secondary combustion chamber on a continuous basis. EUCREMATORY1 is equipped with a chart recorder. I verified that the chart recorder is calibrated to accurately record temperature on a continuous basis. Both the circular logs and temperature on the control panel both verify that the unit operates at 1650°F.

SC IV.3: States that the permittee shall maintain a scale at the facility for the purpose of verifying charge weight. Kenneth showed me the scale used to verify weight, how it operates, and where they record the weight in the cremation logs.

MONITORING/RECORDKEEPING

SC VI.1 through VI.6 Specifies recordkeeping requirements for EUCREMATORY1. The facility must keep maintenance records, continuous secondary combustion chamber temperature data, and the description of each cremation which includes duration of burn and weight.

Continuous secondary combustion temperature records are maintained on circular charts. Alta Cremations received a VN during its last inspection for failing to record the burn duration, and date of each cremation on all cremation logs and temperature charts. At the time of this inspection, I verified that the start time, stop time, date, weight, and ID No. of the deceased is noted on the circular chart for each cremation. The circular charts are changed out after each cremation. Kenneth says he does this to help organize recordkeeping data for the deceased. Kenneth also keeps separate identification logs of when each charge is delivered along with their ID number, date, and weight. I compared these logs to the circular charts to verify accuracy between recordkeeping logs.

Calendar quarter basis records of when pathological waste is burned are maintained. Only pathological waste is burned at this facility. Kenneth stated that EUCREMATORY1 has not had any maintenance because B&L Cremation Systems said that the machine does not need maintenance until it reaches 1,500 runs. At the time of the inspection the Kenneth stated the machine was only at around 500 runs. I verified that extra thermocouples are kept on-site.

STACK/VENT RESTRICTIONS

SC VIII.1 Specifies stack parameters. I did not verify stack parameters during this inspection.

There is a list of operation and maintenance guidelines in the permit. I have addressed this list in the bullet points below.

- A trained operator, Kenneth Allen Sr., is responsible for compliance with the air pollution control requirements.
- Grates are cleaned prior to each cremation & ashes are given to the family of the deceased.
- Waste appears to be combusted according to minimum secondary combustion chamber temperatures specified in this permit.
- Charge size appears to follow the manufacturer's instructions to not exceed 1,000 lbs per charge.
- Charge door is only opened to briefly check on the cremation process, if at all.
- Only human remains are combusted in this incinerator.
- Kenneth said combustion air is adjusted according to manufacturer's instructions.
- Kenneth observes stack during almost every cremation. It is possible to view the stack from the parking lot of Alta Cremation and Services.
- A copy of the manufacturer's manual is located near the incinerator.
- B&L Cremation Systems told Kenneth that regular maintenance is not required until 1,500 runs. EUCREMATORY1 is at 500 runs.

- Alta Cremation and Services follows the manufacturer's operation and maintenance guidelines.

CONCLUSION

At the time of this inspection Alta Cremation and Services Inc. is in violation of (PTI) No. 115-20, EUCREMATORY1, III.2 & IV.1. A violation notice will be sent to the facility to address these issues. The compliance issues at Alta Cremation and Services Inc. are summarized below:

- EUCREMATORY1 automatically shut down before waste was fully combusted. This means that the waste was still combusting due to residual heat in the furnace while the secondary combustion chamber and afterburner were off and not controlling emissions or operating in a manner satisfactory to the AQD District Supervisor.

NAME Mark Reid

DATE 7/6/2023

SUPERVISOR K. Kelly