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

P114564317		
FACILITY: Alta Cremation & 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: 08/31/2022
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: Minor
SUBJECT: Unannounced scheduled inspection.		
RESOLVED COMPLAINTS:		

On August 31, 2022, I conducted an unannounced scheduled inspection of Alta Cremation and Services Incorporated 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 cremation unit. This emission unit is identified in the PTI 115-20 as EUCREMATORY1. 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 and observed zero visible emissions. I later learned that the cremation unit was not operating during this inspection. A vehicle was parked adjacent to the building and the doors to the building were locked. Nobody answered the doorbell or my knocking on the doors. A telephone number was posted by the entrance, and I called it. I spoke with Kenneth Allen Senior, who met me on-site as quickly as possible. I identified myself, held an opening meeting, conducted a site review, reviewed records, and concluded the inspection.

I observed the B&L Cremation Systems, Phoenix II-3 cremation unit (EUCREMATORY1). The exterior had minor soot deposits (Image 1). Mr. Allen Sr. stated that the cremation unit is operated about two to three times per week. It is my understanding that Infrequent incinerator operation subjects the refractory lining to excessive expansion and contraction, which can cause long cracks that can be larger than 3/16" wide. Mr. Allen opened the primary combustion chamber (PCC) door to allow me to inspect the condition of the refractory lining. I observed less cracking in the ceiling than expected. No significant cracks were observed.

I reviewed temperature chart records for EUCREMATORY1. Mr. Allen Sr. was able to produce cremation records during this inspection. Mr. Allen Sr. stated that a new paper chart is used to record the temperature each operating day. During this inspection, I observed that the temperature chart (Image 7) on EUCREMATORY1 did not identify the date, and the time the charge was inserted. All temperature charts I reviewed did not identify the date, and the time the charge was inserted. Per my request, Mr. Allen Sr. wrote dates on some temperature charts during this inspection. We also reviewed the cremation logs. The weight was recorded for each cremation. I learned that the start time recorded on the cremation logs is when EUCREMATORY1 starts up, not when the charge is inserted. Furthermore, the permittee failed to record the end time of each cremation, therefore the duration of each burn was not recorded. Mr. Allen Sr. and I discussed these recordkeeping deficiencies and how to resolve them by writing legible information on each temperature chart. Alta Cremation failed to keep satisfactory records of the date and time (duration of burn) of each charge combusted. This constitutes a violation of PTI No. 115-20, EUCREMATORY1, VI.3, which states in part, "The permittee shall keep, in a manner satisfactory to the AQD District Supervisor, daily records of the time (duration of burn), description and weight of the charge combusted in EUCREMATORY1, as required by SC II.2." This violation shall be cited in a violation notice.

The March 4, 2021, temperature record (Image 6) indicates compliance with the minimum secondary combustion chamber (SCC) of 1600°F. Therefore, the EUCREMATORY1 SCC has operated above 1600°F. The temperature records from August 29 through August 31, 2022, (Images 5 and 7), indicate EUCREMATORY1 was operated at 1575 degrees Fahrenheit, which is 25 degrees less than the permitted minimum of 1600 degrees. This constitutes a violation of PTI No. 115-20, EUCREMATORY1, III.1, which states, "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." This also constitutes a violation of R 336.1910, which states, "An air-cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with these rules and existing law." These violations shall be cited in a violation notice.

I have noted two items while evaluating compliance. First, Mr. Allen Sr. asserted that the low-temperature records may be caused by a chart recorder calibration error rather than a failure to maintain 1600°F in the SCC. This assertion appears to be supported by Image 8 below, which is a close-up view of the EUCREMATORY1 control panel. The control panel shows that the Afterburner (SCC) Setpoint is 1650° F. A chart recorder calibration error constitutes a violation of PTI No. 115-20, EUCREMATORY1, IV.2, which states, "The permittee shall install, calibrate, maintain, and operate in a manner satisfactory to the AQD District Supervisor, a device to monitor and record the temperature in the SCC of EUCREMATORY1 on a continuous basis." This violation shall be cited in a violation notice.

Second, Mr. Allen Sr. stated that a mechanical malfunction causes the Primary Combustion Chamber rear door to occasionally open about a half inch, which requires the operator to manually close the rear door. Mr. Allen Sr. stated that service on this door is pending a return visit by the technician. I stated that the partially open PCC door may reduce the SCC temperature by introducing cooler air into the exhaust stream. This may cause, or contribute to, the SCC operating temperature dropping below the permitted minimum of 1600°F. I discussed this issue again with Mr. Allen Sr. by cell phone later on August 31, 2022. Mr. Allen Sr. reiterated that he thought the low-temperature records were due to a calibration error. I stated that all reasonable causes of this temperature malfunction must be evaluated. Mr. Allen Sr. agreed. The mechanical malfunction of the PCC rear door constitutes a violation of PTI No. 115-20, EUCREMATORY1, III.2, which states in part, "The incinerator shall be installed, maintained, and operated in a manner satisfactory to the AQD District Supervisor to control emissions from EUCREMATORY1." This violation shall be cited in a violation notice.

CONCLUSION

Alta Cremation and Services Incorporated is in violation of PTI No. 115-20, EUCREMATORY1, III.1, III.2, IV.2, VI.3, and R 336.1910, which shall be cited in a violation notice.



Image 1(IMG_0398) : B&L Cremation Systems, Phoenix II-3 cremation unit. This image shows the whole cremation unit with the primary combustion chamber charge door on the front (left) of the emission unit, and the control panel on the back (right) of the emission unit



Image 2(IMG_0407) : View of the rear of EUCREMATORY1. The control panel and temperature chart recorder are mounted on the left. The long black rectangle is the primary combustion chamber rear door. The smaller silver rectangle is the cremains collection bin.



Image 3(IMG_0402) : Upward view of the front of EUCREMATORY1 primary combustion chamber ceiling. No significant cracks were observed. Cremains are swept to the rear floor of the primary combustion chamber. The cremains are then collected through a rear door.



Image 4(IMG_0404) : EUCREMATORY1 primary combustion chamber open rear door (top rectangle). Cremains

https://intranet.egle.state.mi.us/maces/WebPages/ViewActivityReport.aspx?ActivityID=248... 9/2/2022

are swept from the front of the primary combustion chamber (PCC) to the rear of the PCC, and then pushed into a narrow chute that empties into a collection bin (bottom).

Image 5(IMG_0409) : Close-up view of EUCREMATORY1 temperature chart dated, "Aug 29, 2022." The record indicates the secondary combustion chamber was continuously operated at 1575 degrees Fahrenheit, which is 25 degrees less than the permitted minimum of 1600 degrees.

Image 6(IMG_0413) : Close-up view of EUCREMATORY1 temperature chart dated, "March 4th, 2021." Records indicate the SCC operated at 1650 degrees F, which met the minimum temperature requirement of 1600 degrees Fahrenheit.

Image 7(IMG_0391): EUCREMATORY1 temperature chart on the machine (8/31/2022 inspection). The record

indicates the secondary combustion chamber was continuously operated at 1575 degrees Fahrenheit, which is 25 degrees less than the permitted minimum of 1600 degrees.

Image 8(IMG_0395) : EUCREMATORY1 control panel. Note that the Afterburner (secondary combustion chamber) Setpoint is 1650F, which appears to support Kenneth Allen Sr.'s assertion that the low-temperature records are due to a chart recorder calibration error.

NAME Robert Umarchi

DATE 9/2/2022

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