

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

N833957195

FACILITY: Great Lakes Cremation Service, Inc.		SRN / ID: N8339
LOCATION: 29547 Costello Dr, NEW HUDSON		DISTRICT: Warren
CITY: NEW HUDSON		COUNTY: OAKLAND
CONTACT: Gil Pietrandrea , Facility Manager		ACTIVITY DATE: 02/10/2021
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Complaint investigation and targeted inspection.		
RESOLVED COMPLAINTS: C-20-04233, C-20-04253, C-20-04264, C-20-04382, C-20-04390, C-21-00223, C-21-00383		

On February 10, 2021, I conducted an unannounced scheduled inspection of Great Lakes Cremation Service (GLC) located at 29547 Costello Drive, New Hudson, Michigan. This Facility has been assigned the State Registration Number (SRN) of N8339. 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 451P); the administrative rules; Permit to Install (PTI) No. 232-09B and No. 61-15; and complaints regarding black smoke attributed to Great Lakes Cremation Service's operations.

On February 10, 2021, I received an opacity complaint via telephone. Because of the transient nature of opacity complaints, I conducted the complaint investigation as quickly as possible. I arrived at the complainant's work location at about 10:00 a.m. The temperature was 13 degrees F, the wind direction was light and variable, from the south to south-southwest. The wind speed was about zero to three miles per hour and the sky was overcast.

Because of the low ambient temperature, I observed multiple white plumes, which appeared to be generated by water in the exhausts from multiple businesses' building heaters. I observed multiple intermittent black smoke plumes from the general direction of the GLC exhaust stacks (photo attached). I did not smell a foul odor. The black smoke did not appear to be in violation of R 336.1301 because of plume durations, which were less than 1-minute and less than about 75 percent. A valid Method 9 reading could not be taken because the exhaust stacks are not visible from ground level and the permittee cannot provide safe access to the roof or a suitably elevated position.

I then called GLC and spoke to Mr. Gil Pietrandrea, Facility Manager, who stated that the Lyon Township Fire Department had inspected GLC that morning in response to another neighbor complaint about opacity and concern of an out-of-control fire at GLC. I then proceeded to GLC to conduct an inspection.

I entered the office building and identified myself. I met with Mr. Gil Pietrandrea, Facility Manager, and Ms. Danielle Hall, Manager. I observed the condition of the cremation units. All four human crematories were operating. The single animal crematorium was not operating. I observed that the charge doors of the four human crematories were darkened with soot deposits, which was noticeably different compared to what I had observed during previous inspections. I was told that the soot deposits were caused by charges beginning to combust during insertion and before the primary combustion chamber charge door can be closed. The soot deposits do not appear to indicate a violation of permit conditions.

I reviewed the permit-required secondary combustion chamber temperature records. Temperature records for EUCREMATORY1 indicate that on February 3, 2021, the permittee failed to maintain a minimum secondary combustion chamber temperature of 1600°F. The actual minimum temperature that was maintained was approximately 1525°F. This appears to be a violation of PTI No. 232-09B, EUCREMATORY1, Special Condition III.1, which states in part, "The permittee shall not combust waste in EUCREMATORY1 unless a minimum temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained." This noncompliance shall be cited in a violation notice.

We also discussed the black smoke plumes I observed during the complaint investigation. Mr. Pietrandrea stated that crematorium operators are not allowed to open the delivered containers, therefore they cannot remove any inappropriate materials placed in the container by relatives. Furthermore, with the recent high-volume of COVID-19 deaths, bodies may come wrapped in two or three black plastic body bags that create black smoke, which appears to be what I observed during the complaint investigation.

We also discussed the labeling of records because GLC uses a different naming convention than the emission unit names identified in permits 232-09B and 61-15. Per our conversation during this inspection, I sent Mr.

Pietrandrea a follow-up email on February 12, 2021, in which I attached a Word document, which stated, "Below is a list that correlates each AQD assigned Emission Unit ID with the corresponding Great Lakes Cremation cremation unit name. Permit to Install numbers 232-09B and 61-15 require records shall be kept in a satisfactory manner. To comply with the permits, the AQD requests that all permit required records clearly identify the AQD Emission Unit ID. Great Lakes Cremation may use the abbreviation of EU to indicate Emission Unit as in figure 1 below."

EMISSION UNIT NAMES

Below is a list that correlates each AQD assigned Emission Unit name with the corresponding GLC designated cremation unit name.

AQD Emission Unit	Great Lakes Cremation Service
Name	Cremation Unit Number
EUCREMATORY1	#1, Power Pak II - human crematory.
EUCREMATORY2	#2, Super Power Pak - human crematory.
EUCREMATORY3	#5, Power Pak Jr. - animal crematory.
EUCREMATORY4	#3, Super Power Pak - human crematory.
EUCREMATORY5	#4, Power Pak II Plus - human crematory.

I also observed that GLC had purchased a new cremains processing station. The new cremains processing station emissions are controlled by a fabric filter, which exhausts to the general in-plant environment. This process appears to be exempt from R 336.1201(1) per R 336.1285(2)(l)(vi)(B).

Regarding the Lyon Township Fire Department (LYFD) inspection of GLC on February 10, 2021, immediately after the inspection I drove to the LYFD and spoke with Sargent Kelly Blades. Sargent Blades stated Fire Chief Ken Van Sparrentak responded to the call and stated he would relay my contact information to Fire Chief Sparrentak, who did contact me and provided a copy of the LYFD incident report. The incident report stated in part, "Owner stated that the business was a crematorium and black smoke was a normal occurrence." Fire Chief Sparrentak did not find any fire hazards.

Upon returning to my telework location, I contacted another permitted crematory (Detroit Wilbert Cremation Services East, LLC, SRN N7548) that I have inspected multiple times. I spoke with Mr. Chris Gordon, Manager, to discuss black smoke that may be created by plastic body bags. Mr. Gordon informed me that his facility also has a problem with black smoke and had also been recently inspected by the local fire department in response to a call.

CONCLUSION

I did not perform a Method 9 opacity observation. I did observe a failure to maintain a minimum secondary combustion chamber temperature of 1600°F, which shall be cited in a violation notice.



Image 1(IMG_0116.JPG) : View of black smoke plume from Great Lakes Cremation Service from the east. Image taken on February 10, 2020.



Image 2(IMG_0135.JPG IMG_0135) : View of soot deposits on the crematory doors. Image taken on February 10, 2020.

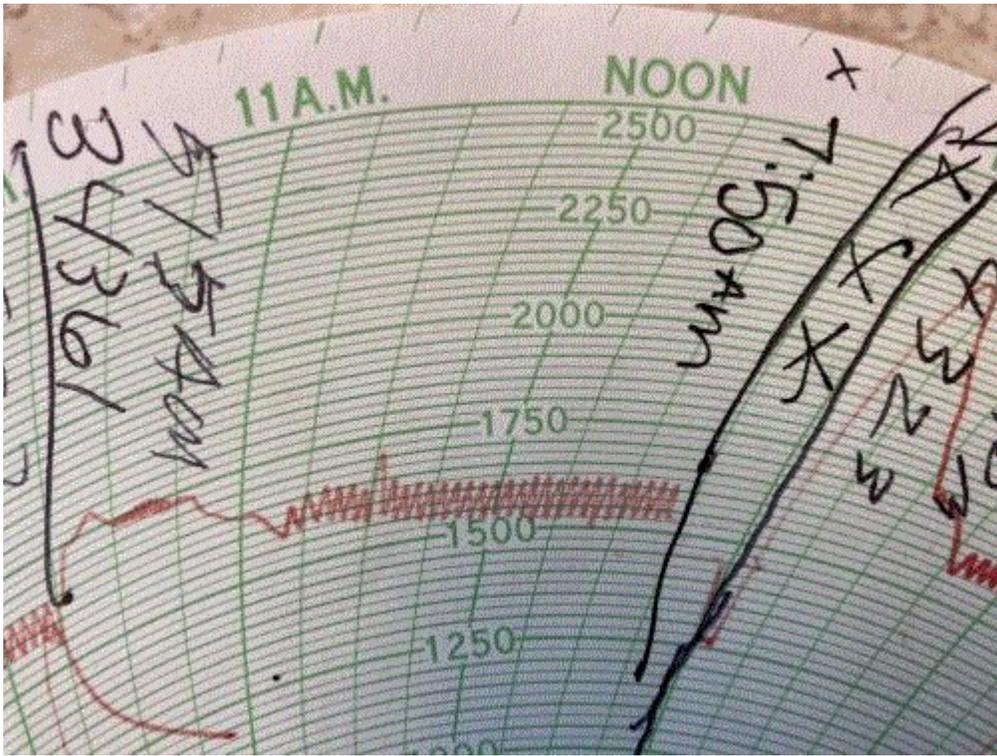


Image 3(IMG_0152 rotated.jpg) : Close-up photo of EUCREMATORY1, February 3, 2021, temperature chart. Temperature record indicates the PTI No 232-09B, EUCREMATORY1, III.1 minimum temperature of 1600F was not maintained.

Figure 1.

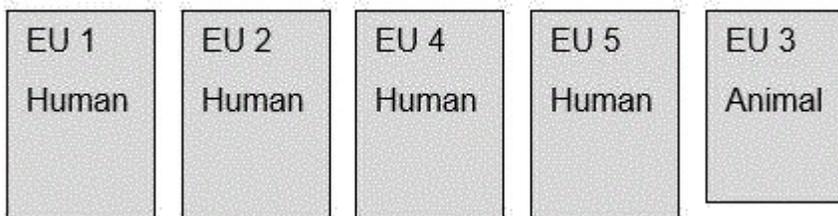


Image 4(FIGURE 1) : Graphic of the physical arrangement of the permitted emission units with emission unit (EU) permit name abbreviations.

NAME Robert Elmarchi

DATE 3/10/2021

SUPERVISOR Joyce