

**DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Self Initiated Inspection**

N550745587

FACILITY: DETROIT WILBERT CREMATION		SRN / ID: N5507
LOCATION: 70 S SQUIRREL RD UNIT M, AUBURN HILLS		DISTRICT: Southeast Michigan
CITY: AUBURN HILLS		COUNTY: OAKLAND
CONTACT:		ACTIVITY DATE: 07/23/2018
STAFF: Joe Forth	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: On-site inspection		
RESOLVED COMPLAINTS:		

On July 23, 2018, AQD staff Joe Forth conducted a self-initiated inspection of Detroit Wilbert Cremation Services located at 70 S. Squirrel Rd Unit M, Auburn Hills, MI 48326. The purpose of the inspection was to determine the facility's compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451, as amended, MDEQ-AQD Air Pollution Rules, and Permits to Install Nos. 160-95 and 160-95A.

#### Facility Description

Detroit Wilbert Cremation Services (C.S.) Auburn Hills location is a human crematorium. The facility has two Matthews Natural Gas Fired Crematory Incinerators. They also have a chilled storage room for the bodies to be processed and a cremated remains processing station.

#### Facility Inspection

I arrived at the facility at 9:00 am. I was met by manager Christopher Gordon. I stated the purpose of the inspection and presented my credentials. I discussed what I would need to confirm compliance with air regulations. Mr. Gordon provided temperature records for incinerator #2. He also showed me the work orders for the recent repairs that were performed on the incinerators. (See Attachment 1) Next, Mr. Gordon showed me the incinerators. Both incinerators appeared to be in good working condition, no signs of deterioration or rust. The stacks as well appeared to be in quality condition. The facility did not have any remains on site today, so they were unable to perform a cremation for me to witness. However, Mr. Gordon was willing to demonstrate the incinerators reaching the permit minimum temperature: 1600 F. Incinerator #1 took longer to reach the goal temperature than #2. Mr. Gordon explained that if an oven isn't used frequently, the latent heat in the chamber will decrease and require a longer heat up period. Incinerator #1 had not been used in a few days, while #2 had been used more recently. Mr. Gordon also provided the temperature charts for incinerator #2. I left the facility at 11:00 am.

#### Compliance

##### PTI No. 160-95 Special Conditions (Unit 1)

15. The particulate emission from the cremation unit shall not exceed 0.20 pound per 1,000 pounds of exhaust gases, corrected to 50% excess air. The proper operation and maintenance of the incinerator would confirm compliance with the PM emission rate. On May 18, 1994, through emissions testing, the emission rate of PM from the incinerator was determined to be 0.071 lbs PM per 1000 lbs of exhaust gas.

16. Visible emissions from the cremation shall not exceed a 6-minute average of 20% opacity. Staff was unable to observe the emissions during a cremation. There were no emissions during the time the incinerator was reaching operating temperature.

17. Verification of particulate emission rates from the cremation unit by testing, at owner's expense, in accordance with Commission requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing procedures and the location of stack testing ports must have prior approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification. On May 18, 1994, through emissions testing, the emission rate of PM from the incinerator was determined to be 0.071 lbs PM per 1000 lbs of exhaust gas.

18. Proper operation and adequate maintenance of the cremation unit to control emissions is required. The unit appeared to be adequately maintained and operated by trained staff. Mr. Gordon provided records showing that

anytime there is a malfunction they request service right away

19. Facility shall not operate the cremation unit unless the secondary combustion chamber preheats for 30 minutes prior to the firing of the primary combustion chamber. Mr. Gordon explained that this is the process that they follow.

20. Facility shall not operate the cremation unit unless a minimum temperature of 1600 degrees Fahrenheit and a minimum retention time of 1.5 seconds in the secondary combustion chamber is maintained. Mr. Gordon demonstrated how the unit is able to reach and maintain the minimum temperature.

21. The exhaust gases from the cremation unit shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 20 inches at an exit point not less than 25 feet above ground level. The exhaust of the unit is unobstructed, parameters of the stack were not confirmed during this inspection.

22. The disposal of collected air contaminants shall be performed in a manner which minimizes the introduction of air contaminants to the outer air. Emissions from the process are passed through an afterburner with baffles which increase the retention time and furthering the destruction of the particulate matter from the process. Any remains left the incinerator are collected and given to the family or designated recipient.

23. Facility shall not burn any waste in the cremation unit other than the following:  
Type 4 -- Human and animal remains, consisting of carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds, and similar sources.

Mr. Gordon confirmed that type 4 waste is the only waste that is processed in the incinerator.

PTI No. 160-95A Special Conditions (Unit 2)

1.1 The particulate emission from the cremation unit shall not exceed 0.20 pound per 1,000 pounds of exhaust gases, corrected to 50% excess air. The proper operation and maintenance of the incinerator should confirm the PM emission rate is below the limit. On November 3, 1999, through emissions testing, the emission rate of PM from the incinerator was determined to be 0.042 lbs PM per 1000 lbs of exhaust gas.

1.2 The facility shall not burn any waste in EUCREMATORY2 other than the following wastes:  
**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.

Mr. Gordon confirmed that the previously stated materials are all that are processed in the unit.

1.3 The facility shall not combust waste in EUCREMATORY2 unless a minimum temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. The temperature charts which I reviewed on-site showed that the facility routinely maintains a temperature of 1650 F in the secondary chamber, and any significant deviations are investigated and corrected promptly. (See Attachment B)

1.4 The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EUCREMATORY2. The incinerator appeared to be in good working condition. The unit easily reached 1650 F and maintained the temp.

1.5 The facility shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY2 on a continuous basis. The temperature chart was installed and operational at the time of inspection.

1.6 The facility shall keep, in a satisfactory manner, daily records of the time, description and weight of waste combusted in EUCREMATORY2, as required by SC 1.2. The time, weight and description of each cremation are recorded on their own sheet. (See Attachment C).

1.7 The facility shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EUCREMATORY2, as required by SC 1.5. Temperature records were reviewed on site and appeared to be in compliance. Any abnormalities that occurred were corrected by staff promptly. An example of a temperature

chart is attached. (See Attachment B).

#### Conclusion

The facility appears to be operating in compliance with PTIs Nos. 160-95 and 160-95A, the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451.

NAME Jed M Fute      DATE 8-28-18      SUPERVISOR SK