

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

P093261944

<b>FACILITY:</b> Southern Michigan Cremation Services R.O. Inc.		<b>SRN / ID:</b> P0932
<b>LOCATION:</b> 4839 Fernlee Avenue, ROYAL OAK		<b>DISTRICT:</b> Warren
<b>CITY:</b> ROYAL OAK		<b>COUNTY:</b> OAKLAND
<b>CONTACT:</b> James Santeiu , Owner		<b>ACTIVITY DATE:</b> 02/15/2022
<b>STAFF:</b> Shamim Ahammod	<b>COMPLIANCE STATUS:</b> Non Compliance	<b>SOURCE CLASS:</b> MINOR
<b>SUBJECT:</b> Conducted an onsite scheduled inspection of Southern Michigan (SM) Cremation Services R.O, Inc to determine the company's compliance with the requirements of Permit to Install (PTI) No. 113-18A for the human crematory.		
<b>RESOLVED COMPLAINTS:</b>		

On February 15, 2022, Michigan Department of Environment, Great Lakes and Energy (EGLE) -Air Quality Division (AQD) staff, I (Shamim Ahammod) conducted an onsite scheduled inspection of Southern Michigan (SM) Cremation Services R.O, Inc. (SRN: P0932) located at 4839 Fernlee Avenue, Royal Oak, Michigan. The purpose of the inspection was to determine the company's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of Permit to Install (PTI) No. 113-18A for the human crematory.

### Permit History

On August 10, 2018, PTI No. 113-18 was issued to SM Cremation Services for the installation and operation of EU-CREMATORY3 and EU-CREMATORY4 and this permit was voided on 4/1/2021. On April 1, 2021, PTI No. 113-18A was issued to Southern Michigan Cremation Services RO, Inc to operate the EU-CREMATORY3, EU-CREMATORY4, EU-CREMATORY5, and EU-CREMATORY6.

As of February 15, 2022, the permittee did not install the EU-CREMATORY5 and EU-CREMATORY6 under the flexible group ID of FG1200.

### Source Description

The facility provides human cremation services. The facility is currently operating EU-CREMATORY3 and EU-CREMATORY4. At the time of inspection, I observed the permittee haven't installed the EU-CREMATORY5 and EU-CREMATORY6.

Emission Units are described below:

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FG750	Two Matthews Cremation Power Pak II Plus crematories with a maximum charge rate of 750 pounds.	EU-CREMATORY3 EU-CREMATORY4
FG1200	Two Keller Manufacturing KMH 1125-400 crematories with a maximum charge rate of 1,200 pounds.	EU-CREMATORY5 EU-CREMATORY6

### Onsite Inspection

On February 15, 2022, at 10.40 AM, I arrived at the facility and was greeted by Mr. Frank Leto, Crematory Operator of Southern Michigan Cremation Services R.O, Inc. I introduced myself, provided credentials, and stated the purpose of the inspection.

Mr. Leto and I toured the facility. At the time of inspection, EU-CREMATORY3 and EU-CREMATORY4 were operating.

Emission units (EU-CREMATORY3 and EU-CREMATORY4) were not labeled properly. I advised Mr. Leto to label the emission units properly. I did not observe any emissions from both stacks.

## REGULATORY ANALYSIS

**The following conditions apply to:**

### **FG750**

Two Matthews Cremation Power Pak II Plus crematories with a maximum charge of 750 pounds.

Emission unit: EU-CREMATORY3, EU-CREMATORY4

Pollution Control Equipment

Secondary combustion chamber with afterburner

### **Emission Limits**

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. PM	0.20 lb/1000 lbs of gas <sup>a</sup>	Hourly	EU-CREMATORY3 EU-CREMATORY4

Per SC V.1, the permittee shall, upon request of the AQD District Supervisor, verify PM emission rates from each crematory in FG750 by testing at the owner's expense, in accordance with Department requirements. AQD hasn't requested the facility to conduct the PM emission test yet.

### **Material Limits**

Per SC II.1, the permittee does not burn any waste in FG750 other than pathological wastes, according to Mr. Leto. I reviewed the daily log and found the permittee only burns the human body in the crematory.

Per SC II.2, the permittee shall not charge more than 750 pounds per charge in any crematory in FG750. Per SC VI.3, the permittee shall keep, satisfactorily, daily records of the time (duration of burn), description and weight of charge combusted in each crematory in FG750, as required by SC VI.2. At the time of my inspection, I reviewed the daily cremation log that specifies the daily records of the time (duration of burn), description, and weight of charge combusted in each Crematory in FG750. It appears the permittee does not charge more than 750 pounds per charge in any of the crematory in FG750.

Per SC II.3, the permittee burns only pipeline natural gas in any crematory in FG750 according to Mr. Letu. In my last visit on June 8, 2021, the permittee provided the monthly natural gas usage bills.

### **Process/Operational Restrictions**

Per SC III.1, the permittee shall not combust waste in any crematory in FG750 unless a minimum the temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary the combustion chamber is maintained. At the time of inspection, I reviewed the cremation log data, and it appears

the minimum temperature of 1600°F in the secondary combustion the chamber was maintained except the following situations:

Date	First name/Last Name	Start time	End time	The temperature was above 1600°F for the following duration	The temperature was below 1600°F for the following duration	Average burning temperature
12/12/2021	Robert Old	12.50 AM	4.45 AM	1.30 AM-2.15 AM	2.15 AM-4.45AM	1200F
11/6/2021	Jerome Schmidt	8.25 PM	1.30 AM		8.25 PM-1.30 AM	1100F
11/30/2020	Jonathan Brennan	10.30 PM	2.30 AM	10:30 PM-11:00 Pm	11:00 PM to 2:30 AM	1350F
11/26/2020	Pateicia Hurlbert	3 PM	7 PM		3PM-7PM	1000F
10/06/2021	Rentude Tulmen	12.50 AM	4.45 AM	12.50 am - 1.15 am	1.15 AM-4.45 AM	1200F
9/26/2021	William Vernia	9 AM	12.14 PM	9 AM – 12.14 PM		1190F
9/29/2021	Ianette Donathe	10:45 PM	2:30 AM		10:45 PM-2:30 AM	1100F

- A cremation Temperature log chart and daily logs for the above periods have been attached to this report.

AQD will issue a violation notice to the facility for violating the permit conditions of SC III.1 (Process/Operational Restrictions) of PTI No. 113-18A.

Per SC VI.2, the permittee shall monitor and record the temperature in the secondary combustion chamber of each crematory in FG750 continuously. At the time of inspection, I observed the secondary combustion chamber temperature monitoring device. I noted the secondary combustion chamber temperature for both EU-CREMATORY3, and EU-CREMATORY4 were 1650-degree Fahrenheit. I reviewed the daily continuous temperature log data and found the permittee records the temperature in the secondary combustion chamber of each crematory in FG750 continuously.

Per SC VI.3, The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description, and weight of the charge combusted in each crematory of FG750, as required by SC II.2. The permittee shall keep all records on file and make them available to the Department upon request.

Per SC VI.6, the permittee shall keep, in a satisfactory manner, a record of all service, maintenance, and equipment inspections for each crematory in FG750. The record shall include the description, reason, date, and time of the service, maintenance, or inspection.

### **EUCREMATORY-3**

On May 18, 2020, the permittee has performed a preventative maintenance inspection in 1996

IEE Power Pak II, serial number 0140296 (EU\_CREMATORY3) by IR Environmental Services LLC.

Executive summary of the “Preventive Maintenance Inspection Report” for the 1996 IEE Power Pak II, serial number 0140296 (EU\_CREMATORY3):

- The Baffle is in poor condition and needs repair or replacement. The Crematory Left Side Clearance is not at a safe minimum distance from combustible materials.

I have received and reviewed work order no. 3590, and invoice # 21-2021, dated 11/15/2021. I found that the permittee has replaced the following items in EU\_CREMATORY3:

- Cremation Chamber Floor, Roof, Left & Right Sidewall, Backwall, Lintel, Loading Door;
- After chamber Throat Area Left & Right Sidewall Backwall, Roof;
- After chamber Divider Wall, Underside of Floor, Hot & Cold Pass Wall, Hot & Cold Pass lintel, Access Door, Hot & Cold Pass Access Door, Perimeter Walls under the Stack, Baffle Complete Stack Replacement; and Upgrade Existing Cremation Burner & Afterburner to Thermjet Burner

#### **EU\_CREMATORY4**

On May 18, 2020, the permittee has performed a preventative maintenance inspection in 1996 IEE Power Pak II, serial number 0130296 (EU\_CREMATORY4) by IR Environmental Services LLC. Executive summary of the “Preventive Maintenance Inspection Report” for the 1996 IEE Power Pak II, serial number 0130296 (EU\_CREMATORY4).

- The Gas Shutoff needs clear marking to prevent future risks to safety & health.
- The Cremator right side clearance is not at a safe minimum distance from any combustible materials.
- Conversion of afterburner from top of the machine to rear move throat air assembly to the back of throat area Replace stack and gas train.
- Replace burners and send old burners back to the shop.

I have received and reviewed work order no. 2296, created: December 30, 2020, and invoice # 20-1036, dated 2/1/2021. I found that the permittee has replaced the following items in EU\_CREMATORY4:

- Cremation Chamber floor, Roof, Left sidewall. Right sidewall, Backwall, Lintel, loading door; The After Chamber Throat Area Left Sidewall, Backwall, Right Sidewall, Roof, Divider Wall, Underside of Floor, Hot Pass Wall, Cold Pass wall, Hot Pass Lintel, Cold Pass Lintel, The Perimeter Walls under the Stack, After Chamber Access Doors, Hot pass Access Door, Cold Pass Access Door, The Baffle.
- Completely replaced the existing stack, 26" Diameter, 3" Refractory Lined Stack,
- Rain Collar & Stack Plate will be installed.

Per SC IV.1, the permittee has installed a secondary combustion chamber with an afterburner in the secondary combustion chamber. The permittee has posted a copy of the manufacturer’s manual and guidelines near to the incinerators.

Per SC IV.2, the permittee shall install, calibrate, maintain, and operate satisfactorily a device to monitor and record the temperature in the secondary combustion chamber of any crematory in FG750 continuously. I requested the facility for the calibration report of the monitoring device.

According to Mr. Jarrod Gogel, monitoring device was calibrated by vendors but they didn't receive any calibration paperwork.

Per SC IV.3, during my inspection, I observed the permittee maintains a scale at the facility to verify the charge weight as required by SC II.2. Per SC IV.4, the permittee has equipped and maintained each crematory in FG750 with its natural gas regulator.

### **Testing/sampling**

Per SC V.1, The permittee shall, upon request of the AQD District Supervisor, verify PM emission rates from each crematory in FG750 by testing at the owner's expense, per Department requirements. AQD has not requested the facility to conduct the PM emission test yet.

### **Monitoring/Recordkeeping**

The permittee has provided the required record-keeping information per SC VI.1 through SC VI.6. The compliance status of the record-keeping requirements has been evaluated in Sections I through IV.

### **Stack/Vent Restrictions**

Per SC VIII.1, at the time of inspection, the exhaust stacks appeared vertical and unobstructed. SV-CREMATORY3 and SV-CREMATORY4 stack appeared to be at least 26 feet above ground in height.

### **Other Requirements**

Per SC IX.1, the permittee shall label all the crematories in FG750 with the emission unit ID and flexible group ID. At the time of inspection, I observed EU-CREMATORY3 and EU-CREMATORY4 were not labeled with the emission unit ID, and I advised the facility to label the emission units accordingly.

### **Conclusion**

Based on the on-site inspection, it appears Southern Michigan Cremation Services R.O., Inc. does not comply with the requirements of SC III.1(Process/Operational restrictions) and SC IX.1 (Other requirements) PTI No. 113-18A.

NAME Shamim Ahammod

DATE 03/18/2022

SUPERVISOR

