

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

P113161945

| | | |
|---|--|----------------------------------|
| FACILITY: Treasured Pal, LLC | | SRN / ID: P1131 |
| LOCATION: 50669 Central Industrial, SHELBY TWP | | DISTRICT: Warren |
| CITY: SHELBY TWP | | COUNTY: MACOMB |
| CONTACT: Guido Amatangelo , Owner | | ACTIVITY DATE: 02/07/2022 |
| STAFF: Shamim Ahammod | COMPLIANCE STATUS: Non Compliance | SOURCE CLASS: MINOR |
| SUBJECT: Conducted an onsite scheduled inspection of Treasured Pal LLC. to determine the company's compliance with the conditions of Permit to Install (PTI) No. 71-20 for the animal crematory. | | |
| RESOLVED COMPLAINTS: | | |

On February 7, 2022, Michigan Department of Environment, Great Lakes and Energy (EGLE) -Air Quality Division (AQD) staff, I (Shamim Ahammod) conducted an onsite scheduled inspection of Treasured Pal. LLC (SRN: P1131) located at 50669 Central Industrial, Shelby Twp, 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. 71-20 for the animal crematory.

Permit History

On July 23, 2020, PTI No. 71-20 was issued to Treasured Pal, LLC for the installation and operation of EUCREMATORY1.

Source Description

Treasured Pal provides animal cremation services. This facility is a true minor source for HAPS and Criteria Pollutants.

Rules and Regulations

NSPS

Under 40 CFR Part 60, Pathological incinerators are considered exempt from the federal New Source Performance Standards (NSPS) for incinerators of any type, as long as the incinerators are burning 90% or more of pathological waste.

NESHAP

The facility is an area source of HAP emissions. Part 63 Subpart EEE is for Hazardous Waste Combustors. The crematory is not permitted to burn hazardous waste, so it is not subject to this NESHAP.

Inspection Arrangement

I prearranged this announced inspection for February 7, 2022.

Onsite Inspection

On February 7, 2022, at 1 PM, I arrived at the facility and was greeted by Mr. Guido Amatangelo and Mr. David Holder, Owner of Treasured Pal, LLC. I introduced myself, provided credentials, and stated the purpose of the inspection.

At the time of inspection, I observed the inside of the primary chamber that was clean. There were no grates in the primary chamber except the new animal waste. At around 1:34 PM, they started the equipment in front of me. It takes around one and half hours for the secondary combustion temperature to reach 1675 F. Once the secondary combustion chamber temperature reached 1675F, the primary combustion chamber started operating. I observed the flame of fire at primary combustion chamber through a small hole that can be opened and closed by hand. During the inspection, I observed the temperature log and I requested them to scan the temperature records and

send to me via email. They keep daily records in the computer. I requested them to send me the daily records via email. I reviewed the daily maintenance and reporting plan during my visit. While the equipment was operating, I observed the stack and did not see any smoke. I left the property at 3:19 PM.

REGULATORY ANALYSIS

The crematory (EUCREMATORY1) unit is a Therm Tec model S-18-P2X with a total load capacity of 300 lbs and a total burn rate of 100 lb/hr. This unit has two primary chambers, with effluent routing to a singular secondary combustion chamber. This model's design shows more primary chambers could be added in the future. The maximum charge for each primary chamber is 150 lb, so the combined capacity for the unit is 300 lb.

Pollution Control Equipment

Secondary combustion chamber with afterburner

Emission Limits

| Pollutant | Limit | Period / Operating Scenario | Equipment |
|-----------|--------------------------------------|-----------------------------|--------------|
| 1. PM | 0.20 lb/1000 lbs of gas ^a | Hourly | EUCREMATORY1 |

Per General conditions (GC) 13, the Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. The AQD hasn't requested the facility to conduct any performance tests yet. Per GC 11, The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**

- a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
- b) A visible emission limit specified by an applicable federal new source performance standard.
- c) A visible emission limit specified as a condition of this permit to install.

At the time of inspection, EUCREMATORY1 was in operation. I did observe zero percent opacity from the stack.

Rule 331- Particulate Emissions

Pathological incinerators are listed in Table 31 of Rule 331. These incinerators have an emission limit of 0.2 lbs/1,000 lbs gas, corrected to 50% excess air, and a requirement to use an afterburner or other approved equivalent equipment. During the permit evaluation, the AQD calculations for this crematory unit indicate compliance with the emission limit. The unit is equipped with a secondary combustion chamber and afterburner. The secondary combustion chamber shall have a minimum of one second retention time at a minimum of 1600°F. The unit should remain in compliance with Rule 331 when properly operated and maintained.

Material Limits

Per SC II.1, I reviewed the records and found the permittee does not burn any waste in EUCREMATORY1 other than pathological wastes.

Per SC II.2, The permittee shall not charge more than 300 pounds per charge in

EUCREMATORY1 and not more than 150 pounds in each primary chamber in EUCREMATORY1. Per SC VI.3, the permittee shall keep, satisfactorily, daily records of the time (duration of burn), description and weight of charge combusted in EUCREMATORY1, as required by SC II.2. I reviewed the daily records from January 2, 2021, through February 8, 2022, and verified the permittee maintains the daily records of the time, description, and weight of charge combusted in EUCREMATORY1. Based on the records, it appears the permittee does not charge more than 150 pounds in each primary chamber in EUCREMATORY1. The maximum charge they used in primary chamber was 148 pounds on 9/7/2021 during the period of January 2, 2021, through February 8, 2022

Per SC II.3, based on the ‘Consumers Energy’ report, it appears the permittee burns only pipeline natural gas in EUCREMATORY1.

Process/Operational Restrictions

Per SC III.1, 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 chambers are maintained.

I reviewed the cremation temperature log chart from the week of 08/03/2021 through 1/30/2022. I found the permittee combusts waste in EUCREMATORY1 when the temperature of the secondary combustion chambers is at or above 1600°F except the week of 12-7-2021(12/11/2021, Saturday, 4-6 PM, around 2 hours, temperature was in between 1500-1600°F) and 12-15-2021(12/17/2021, Friday, 2:30-5:30 PM, around 2 hours, temperature was in between 1500-1575°F & 12/20/2021, Monday, 7:00-8:00 PM, around 1 hour, temperature was in between 1525 -1575°F).

The permittee shall not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle. Operating the primary burner when the secondary chamber temperature was less than 1600°F, during the week of 12-7-2021 and 12-29-2021, is a violation of SC III.1, III.2, and IV.1 of PTI No. 71-20, and a violation notice will be issued.

Per SC VI.2, the permittee shall monitor and record the temperature in the secondary combustion chamber of EUCREMATORY1 continuously. At the time of inspection, I observed the cremation temperature log data and found the permittee monitors and record the temperature in the secondary combustion chamber of EUCREMATORY1 continuously.

Per SC III.2, the incinerator shall be installed, maintained, and operated in a manner satisfactory to the AQD District Supervisor to control emissions from EUCREMATORY1. A list of recommended operating and maintenance procedures is specified in Appendix A, Incinerator Operation and Maintenance Guidelines. The permittee maintains daily, weekly, monthly and quarterly maintenance procedures.

1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements.
 - All operators are certified. At the time of inspection, certifications were posted on the wall.
2. Clean grates before each day’s operation (more often if necessary) and dispose of the ashes properly.

- Grates are cleaned regularly. I inspected the inside of the primary combustion chamber before starting the operation.
3. Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle.
- Explained in SC III.1 (Process/operation restrictions).
4. Do not overload the incinerator. Stay within the given loading rates and follow the manufacturer's instructions.
- Explained in SC VI.3 and II.2.
5. Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire causing smoke.
- According to Mr. Holder, they don't open the charging door after starting the equipment.
6. Burn only the type of wastes that the incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste (s).
- Explained in SC II.1.
7. Keep the combustion air-adjusted according to the manufacturer's instructions.
- According to Mr. Holder, combustion air has always been adjusted according to the manufacturer's instructions.
8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash.
- At the time of inspection, I did not observe any smoke or fly ash from the stack.
9. Post a copy of the manufacturer's manual and this Guideline near your incinerator.
- A copy of the manufacturer's manual and Incinerator Operation and Maintenance Guidelines (Appendix A) were posted near the incinerator.
10. Make quarterly inspections to check and service all of the equipment. If a qualified person is not available for proper inspections, a service contract with a reputable manufacturer is advisable.
- Explained in SC VI.6.

Per SC VI.6, the permittee shall keep, in a satisfactory manner, a record of all service, maintenance, and equipment inspections for EUCREMATORY1. The record shall include the description, reason, date, and time of the service, maintenance, or inspection.

The EUCREMATORY1 was installed on October 28, 2020, and the operation started on Nov 1st, 2020. This equipment is brand new and manufactured by Thermo-tech, Sherwood, Oregon. The 1st, 2nd, 3rd and 4th quarter inspection were done on 1/28/2021, 4/28/2021, 7/28/2021 and 10/28/2021 respectively. In third quarter, the permittee has replaced the retort filter.

Design/Equipment Parameters

Per SC IV.1, the permittee has installed a secondary combustion chamber with an afterburner. 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 for EUCREMATORY1 continuously. At the time of inspection, I saw the secondary combustion chamber temperature monitoring device. More details in SC III.1.

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.

Testing/sampling

NA

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. SVCREMATORY1 stack appeared to be at least 28.5 feet above ground in height.

Other Requirements

NA

Conclusion

Based on the on-site inspection and review of the records, it appears Treasured Pal, LLC does not comply with the requirements of SC III.1, III.2, and IV.1 of PTI No. 71-20. For these special condition's violations, AQD will issue a violation notice to the facility.

NAME Shamim Ahammod

DATE 3/16/2022

SUPERVISOR *K. Kelly*