

P0592

MAVILA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

P059235372

FACILITY: PET & ANIMAL CREMATION EXCHANGE		SRN / ID: P0592
LOCATION: 1947 W FORT STREET, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Matthew Capitanio , CEO		ACTIVITY DATE: 07/06/2016
STAFF: Terseer Hemben	COMPLIANCE STATUS: Compliance	SOURCE CLASS: Minor
SUBJECT: PM and recordkeeping		
RESOLVED COMPLAINTS:		

### Annual Scheduled Compliance Inspection

#### Pet & Animal Cremation Exchange

1947 Wes Fort Street, Detroit, MI 48216

SRN: P0592

Permit#: 34-15A

Responsible Official: Mr. Matthew M. Capitanio, DVM

Date: July 6, 2016

#### BACKGROUND

Pet and Animal Cremation Exchange (PACE) is a full-service company that addresses pet's afterlife needs. PACE facilitates expert handling and transport of deceased pet, cinerarium exchange and the personal, expedient return of pet's remains to the location of choice with an average return of 24 hours.

According to PACE, cremation exchange involves the reduction, or exchange, of an animal body to cremains (ashes). This process takes place in a digitally automated and specially-designed cinerarium specifically constructed to accommodate individual pet's aftercare needs. The facility offers three main cremation services:

**Private Cremation:** This service involves private reservation. The cinerarium retort is devoted only to an individual pet during the aftercare process. Cremains are sealed, placed in a velvet bag, and then stored within an urn of choice. The process is completed when the cremains are delivered to the desired location.

**Individual Cremation:** The service involves individual reservation. The pet will have a specific and individual location within the cinerarium retort, separate from other pets during the aftercare process. Cremains are sealed, placed in a velvet bag, and then stored within an urn of choice. The process is completed when the cremains are delivered to the desired location.

**Community Cremation:** This option allows the deceased pet to share space within the cinerarium with other pets. Obtaining the cremains is no longer a viable option. In this report, cinerarium is used alternatively with the term crematorium in reference to the process of digital decomposition of organic matter.

**Process:** The PACE operates an animal cremation process using a crematory. A crematory consist of componential technical parts: the hearth, cremation chamber, loading chamber, timer, gas/fuel supply actuator, timer, opacity damper, electronic transmitter and receiver or reflector, and data/chart recorder. A deceased animal/pet is loaded onto the loading table and fed into the crematory. Combustion fuel is supplied through the hearth from the bottom of chamber. A timer is set for monitoring completion of cremation. Cremains are cooled and packaged for delivery to the owner. There was no cremation in

process at the time of this inspection.

#### **Narrative**

I arrived at the facility premises on July 6, 2016 at 1100 hours. Temperature at the hour was 82 F and wind speed 13.8 mph coming from the SSW. Humidity was 68%. The purpose of visit was to conduct an annual scheduled inspection for compliance with emissions of Particulate Matter and odor around the crematory premises. I met the CEO and Owner, Dr. Matthew M. Capitanio outside the facility. We entered the building and proceeded to the back of facility building where the crematorium is installed. The facility shares space with another business. We went through the pre-inspection conference. The CEO informed the facility had been operating satisfactorily, however the business at the location was at its low volume. We inspected the cinerarium that looked compact and well maintained. The process was technically organized. The facility used data correlations to optimize operations. We held a post –inspection conference after the walk-through. The Owner answered all questions posed during the interview and inspection satisfactorily. I left the area at 1230 hours.

#### **COMPLAINT/COMPLIANCE HISTORY:**

None

#### **OUTSTANDING LOV'S:**

None

#### **PROCESS DESCRIPTION:**

The Crematory process conducted at the PACE facility is a dry combustion process. The process utilizes a crematorium fired with natural gas as fuel and digital process control equipment. A deceased animal is introduced into the crematory via charge or loading table. The crematory chamber is ignited using the hearth firing procedure in observance of preset timing. Timings correlate with the weight of the load. Cremains are removed from the chamber, packaged and dressed for delivery to the customer.

#### **EQUIPMENT AND PROCESS CONTROLS:**

The essential equipment in controlling the cremation process is the air/fuel ration actuator. Actuators are equipped with sensors set at detecting oxygen limits for maintaining minimum desired stoichiometry in combustion reaction. Opacimeter is built in the exhaust line for sensing combustion completeness for mitigation of opacity. The facility uses visual and sensual inspection confirms compliance with opacity and odor limits.

#### **OPERATING SCHEDULE/PRODUCTION RATE:**

The PACE is set to operate 24 hrs. a day, 7 days a week, and 365.25 days in the year. However, the facility currently operates at a frequency of 5-8 cremations per month.

**APPLICABLE RULES-PERMIT # 34-15A and NSPS 40 CFR 60.51c, NSPS 40 CFR 52.21(c) & d**  
**CONDITIONS:** The following conditions were used to evaluate compliance at the PACE EUBLP-500 facility-based on the rules-

State Rule: R 201, R 205, R 224, R 225, R 301, R 331, R 901,

Agenda: based on the above permit regulating Animal pets remains cremation: EUBLP-500

1. **In compliance –**PACE stated there has not been any modification to any system, and/ or process at 1947 West Fort Street facility in the last operating period [R 201(1).
2. **In compliance -** PACE demonstrated the total particulate matter (PM) emission rate from the EUBLP-500 did not exceed 0.20 lb. per 1000 lbs. of gas, corrected to 50% excess air based on test protocol. The CEO stated the B&L Crematory Systems equipment installed and used specifies the equipment’s emission rate stands at maximum 0.20 lb. per 1000 lbs. of gas when operating at maximum loading capacity. The equipment is regularly operated, serviced and maintained according to the manufacturer’s specifications. Hence the records of maintenance and monitoring admit the facility PM emission was in compliance with permit limits (SC. I.1) [Attachment B].
3. **In compliance -**PACE demonstrated the permittee did not burn any waste in EUBLP-500 other than Pathological wastes and medical/Infectious waste as defined in the federal standards of performance for new statutory sources, 40 CFR 60.51c (Pathological wastes meant 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 (if applicable). Logs and identification of (pathological) cremated human or/and animal wastes covering the last operating period (SC. II.1) provided showed the co-fired combustions of medical/infectious waste did not exceed 10% by weight, in aggregate of the total waste burned in the EUBLP-500 as measured on a calendar quarter basis. Medical Waste records covering the operating period are attached [Attachment-Appendix D].
4. **In compliance -** PACE demonstrated the permittee did not charge more than 500 pounds per charge in EUBLP-500 months (SC. II.2). Charge records covering the last operating period attached showed the maximum weight charged was 400 lbs. [Appendix D].
5. **In compliance –** PACE demonstrated the permittee did not burn any fuel in EUBLP-500 other than pipeline quality natural gas. The gas service line invoice from Detroit Thermal Energy (DTE) Company to PACE indicate the fuel burned in crematory process is natural gas fuel [Appendix C & E] (SC. II.3).
6. **In compliance –** PACE demonstrated the permittee did not combust waste in EUBLP-500 unless a minimum temperature of 1600 F and a minimum retention time of 1.0 seconds in the secondary combustion chamber were maintained. Temperature profiles from the crematory process indicating compliance is attached [Appendix G] (SC. III.1).
7. **In compliance –** PACE demonstrated the incinerator was installed, maintained, and operated in a satisfactory manner to control emissions from EUBLP-500 as recommended in Appendix A (SC. III.2). Maintenance records covering the last 12 months demonstrated satisfactory maintenance that included proper operation in accordance with manufacturer’s recommendations and an annual inspection and tune-up addressing:
  - a) Condition of the interior and exterior of EUBLP-500 [Attachment H]
  - b) Fuel supply source and operation is attached [Appendix H].
  - c) Burners maintenance records are attached [Appendix H].
  - d) Safety devices are attached [Appendix H].

- e) Air supply and control systems with proper maintenance schedules are attached [Appendix H].
  - f) Door operating system and maintenance records are attached [Appendix H].
  - g) Opacity monitoring and maintenance systems are attached [Appendix H].
  - h) Records of temperature controls are attached [G & Appendix H].
  - i) Data recorders and maintenance records are attached [Appendix G].
  - j) Overall condition of the EUBLP-500 pertaining to proper maintenance is attached [Appendix H].
8. In compliance - PACE demonstrated permittee implemented and maintained a waste management plan for EUBLP-500. The plan included but was not limited to, elements such as segregation and recycling of paper, cardboard plastics, glass, batteries, food waste, and metals (e.g., aluminum cans, metals-containing devices), segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste such as dental waste); and purchasing recycled or recyclable products (SC. III.3) The waste management plan is attached [Appendix F].
9. In compliance – PACE demonstrated the permittee installed, calibrated, maintained and operated in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUBLP-500 on a continuous basis [SC. IV.1]. Records covering the last operating period submitted by PACE indicated compliance with this condition [Appendix B & G].
10. In compliance – PACE demonstrated the permittee maintained a scale at the facility for the purpose of verifying the charge weight as required by SC II.2 (SC IV.2). Visual inspection confirmed an electronic scale was maintained at the site for charge verification. Weight of the last charged load was read off at the scale.
11. In compliance –PACE did not need to demonstrate upon request of the AQD District Supervisor, the permittee verified PM emission rates from EUBLP-500 by testing at owner’s expense, in accordance with Department requirements. No less than 60 days prior to testing, permittee submitted a complete test plan to the AQD technical programs Unit and District Office. The AQD approved the final plan prior to testing. Verification of emission rates included the submittal of a complete report of the test results to the AQD technical Programs Unit and District Office within 60 days following the last date of the test (SC. V.1). The DEQ-AQD had not notified PACE for verification test.
12. In compliance – PACE demonstrated permittee monitored and recorded the temperature in secondary combustion chamber of EUBLP-500 on a continuous basis (SC VI.1). A temperature of the combustion chamber is attached [Attachment G].
13. In compliance - PACE demonstrate the permittee kept in a satisfactory manner, daily records of time (duration of burn), description and weight of waste combusted in EUBLP-500, as required by SC II.1 and SC II.2. The permittee kept all records on file and made them available to the department upon request (SC. VI.2). Records covering last operating period showed the records were kept and maintained in a satisfactory manner [Appendix D].
14. In compliance - PACE demonstrated permittee kept in a satisfactory manner, records

on a calendar quarter basis, of the weight of hospital waste and medical/infectious waste combined , and the weight of all other fuels and wastes combusted in EUBLP-500 (40 CFR 60.51c (c) [SC. VI.3]. Records covering last operating period indicated the permittee kept records for the first quarter of commissioning the unit in 2016 in a satisfactory manner [Appendix D].

15. In compliance – PACE demonstrated the permittee kept in a satisfactory manner, secondary combustion chamber temperature records for EUBLP-500, as required by SC. VI.1; and permittee kept all records on file and made them available to the Department upon request (SC. VI.4). Records of secondary temperature observed are attached in compliance [Appendix G & H].
16. In compliance – PACE demonstrated the permittee kept, in a satisfactory manner, records of all service, maintenance and equipment inspections for EUBLP-500; the records included the description, reason, date, and time of service, maintenance or inspection; and permittee kept all records on file and made them available to the Department upon request (SC. VI.5). Records of service/ maintenance are attached [Appendix B, C, E, and H].
17. In compliance – PACE demonstrated permittee calculated the weight percent of medical/infectious waste burned in EUBLP-500, as required by SC. I.1. All records were kept on file and made available to the Department upon request (40 CFR 60.51c) [SC. VI.6]. Calculation records are attached [Appendix D].
18. In compliance – PACE demonstrated the exhaust gases from EUBLP-500 were discharged unobstructed vertically upwards to the ambient air at an exit point at least 24 feet above ground level via exhaust with maximum diameter 18 inches (SC. VIII.1). Visual inspection directed by the CEO confirmed the stark was configured as designed to discharge vertically upward unobstructed to the ambient air.

#### Determination

In determination, AQD determined the Michigan PACE facility located at 1947 Fort Street was operated in compliance with permit conditions. There were no odors on the facility or surrounding premises. The company kept records in both hardcopy paper and electronic formats. The AQ determines the company operated in compliance with air emission rules.

NAME           DATE    8/16/16    SUPERVISOR