

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

P055030364

FACILITY: PAWS UPON THE HEART, LLC		SRN / ID: P0550
LOCATION: 5035 HOLT ROAD, HOLT		DISTRICT: Lansing
CITY: HOLT		COUNTY: INGHAM
CONTACT: Al Jensen , Co-Owner		ACTIVITY DATE: 07/27/2015
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Scheduled inspection of pet crematory incinerator.		
RESOLVED COMPLAINTS:		

On 7/27/2015, the DEQ, AQD conducted a scheduled inspection of Paws Upon the Heart, a pet crematory facility.

**Environmental contacts:**

Al Jensen, Co-Owner; 517-484-7392; [ajensen@palmerbush.com](mailto:ajensen@palmerbush.com)

Kevin Greenhoe, Manager; 517-484-7392; [kgreenhoe@pawsupontheheart.com](mailto:kgreenhoe@pawsupontheheart.com)

**Facility description:**

This is a pet crematory facility, which provides pet funeral and cremation services.

Emission unit ID	Emission unit description	Permit to Install (PTI) No.	Compliance status
EU-CREMATORY1	NCE-Crawford-EMCOTEK C500P; a multi-chambered incinerator with an afterburner Fuel type: natural gas Maximum charge: 200 lbs Burn rate; 75 lbs/hr Charge type: animal (pet) remains	148-14	Compliance

**Regulatory overview:**

This facility is regulated by Permit to Install (PTI) No. 148-14. This facility is considered a true minor source. A major source has the potential to emit (PTE) of 100 tons per year (TPY) or more, of one of the criteria pollutants. Criteria pollutants are those for which a National Ambient Air Quality Standard exists, and include carbon monoxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is considered a minor or "area source" for Hazardous Air Pollutants (HAPs), because it is not considered to have a PTE of 10 TPY or more for a single HAP, nor to have a PTE of 25 TPY or more for combined HAPs.

**Fee status:**

This facility is not considered fee-subject, for the following reasons. Because it is not a major source for criteria pollutants, it is not classified as Category I. Additionally, because it is not a major source for Hazardous Air Pollutants (HAPs), and is not subject to federal New Source Performance Standards, it is not classified as Category II. Finally, because it is not subject to federal Maximum Achievable Control Technology standards, it is not classified as Category III. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

**Location:**

The crematory is located at the Palmer, Jensen, & Bush funeral home, in Holt. The closest residences are a farmhouse to the immediate southeast, and residences to the immediate north, on the

opposite side of Holt Road. A pasture is to the immediate south. To the east is a church, on the opposite side of Eifert Road. To the west is undeveloped land.

#### Arrival:

I had previously visited the facility unannounced, this summer, on a day when it was not operating. I met Ms. Susan Jensen, Co-Owner, and it was suggested that I allow the company to call me, on a date in the future when they have a cremation to perform, so I could see the facility in operation. I agreed to this, and received a call this morning from Mr. Kevin Greenhoe, Manager.

I arrived, at 11:58 AM. Weather conditions were 85 degrees F, mostly sunny, and humid. and went to the funeral home office. I met Mr. Greenhoe, and Mr. Al Jensen,. I provided a copy of the DEQ brochure *Environmental Inspections: Rights and Responsibilities*.

I was informed that the NCE Crawford, one of the oldest manufacturers of crematories in the United States, had gone out of business when their crematory incinerator was built, but not yet delivered. They were eventually able to get the unit delivered. They explained that a former NCE Crawford technician, Mr. Kevin Willet (713-907-3244), actually built and tested their incinerator, before the company went out of business. They described his efforts as vital to get the unit installed and operational. He now is their contractor, for performing maintenance and any other work on the crematory incinerator. They first operated the unit in March of this year.

#### Inspection:

They have two cremations to conduct today, I was informed. Their plan is for Mr. Greenhoe to take the first shift, and for Mr. Jensen to take the second shift. .

We went into the separate structure where EU-CREMATORY1 is housed. The unit was warming up, in preparation for operating. Currently the secondary combustion chamber was 1,592.2 degrees F. The primary combustion chamber was 219.4 degrees F.

Special Condition No. III.1. of PTI No. 148-14 specifies that waste shall not be combusted in EU-CREMATORY1 unless a minimum temperature of 1,600 degrees F is maintained, along with a minimum 1 second retention time in the secondary combustion chamber. I was informed that they will hold the secondary chamber at 1,650 degrees F for 15 minutes, and then allow the primary chamber to come online, slowly. The preset time for a cremation is 155 minutes, I was told. During the cremation cycle, a timer will tell how many minutes remain until the cycle is finished.

I was informed that EU-CREMATORY1 has sensors which will shut the unit down, if smoke emissions go over 20% opacity. I was told that there may be a puff of smoke, once they put a second charge in, upon finishing the first charge. Mr. Greenhoe used a finger to block the beam of light from the sensor, to demonstrate their audio alarm. They test this as part of weekly maintenance, under the guidance of their contractor, Mr. Kevin Willet.

I asked about the presence of steam in cold weather, and was told that they see no steam, only "a clear vapor" of hot exhaust gas

On their circular recording chart for temperatures, I was informed that green ink is used for the primary chamber temperature, and red for the secondary chamber temperature. I reviewed a number of these charts. Each chart represents a 24-hour day. The company is in compliance with the requirement to monitor and record operating temperatures.

Mr. Greenhoe showed me that they keep detailed records on each cremation, for the type of cremation, individual or batch, and weight. I was told that they never go over a charge weight of 200 lbs.

Near EU-CREMATORY1 is kept a copy of the PTI, the Crawford-Emcotek C-series manual for the

incinerator, and a certificate of training for Mr. Greenhoe and Mr. Jensen.

The actual cremation process began at 12:13 PM. At 12:25 PM, primary temperature was 233.8 degrees F and rising, and secondary temperature was 1,616.4 degrees F.

At 12:28 PM, from outside the building, no visible emissions could be seen from the exhaust stack of EU-CREMATORY1, only heat waves. Weather conditions were 80-85 degrees F, mostly sunny, and humid, with a breeze out of the east at 0-5 miles per hour. Some minutes later, we went to a location downwind of the exhaust stack, when winds shifted to out of the southeast. No odors could be detected. At 0% opacity instantaneously, over a number of minutes, it appeared that EU-CREMATORY1 would clearly be in compliance with the 20% opacity limit of Rule 301.

I asked if the facility is following the list of recommended operating and maintenance procedures specified in Appendix A of PTI No. 148-14, including item 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."

I was informed that their contractor, Mr. Kevin Willet, is not able to make the journey from Texas on a quarterly basis, to do maintenance, and that the most he can be available is twice per year. I asked if other contractors could come at other times of the year,. It was explained that this is a very sensitive machine, and it is so finely calibrated that it could easily be thrown off by a contractor not familiar with it, creating a lot of issues for Mr. Willet to have to correct. They explained that since he actually built this unit, and understands the complex computerized control system that was built specifically for this unit, they do not wish to entrust it to anyone but him.

Mr. Greenhoe gave me a copy (attached for reference) of the weekly, monthly, and yearly inspection procedures that they carry out on the unit. It appeared that the unit is operating efficiently, and appears to be well-maintained.

I left the site at 2:00 PM.

**Conclusion:**

I did not identify any instances of noncompliance, nor any areas of concern. The facility was neat, clean, and orderly.

NAME



DATE

9/30/2015

SUPERVISOR



