

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

P051345645

FACILITY: BENZIE AREA CREMATORY		SRN / ID: P0513
LOCATION: 1417 BEULAH HWY, BEULAH		DISTRICT: Cadillac
CITY: BEULAH		COUNTY: BENZIE
CONTACT:		ACTIVITY DATE: 08/02/2018
STAFF: Caryn Owens	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled Inspection and Records Review		
RESOLVED COMPLAINTS:		

On Thursday, August 2, 2018, Caryn Owens of the Department of Environmental Quality (DEQ) – Air Quality Division (AQD) conducted a scheduled field inspection and records review of Benzie Crematory (SRN: P0513), located at 1417 Beulah Highway, Suite 2, in Beulah, Benzie County, Michigan. More specifically, the facility is located approximately 1/10 mile south of Worden Road on the east side of US-31. The field inspection and records review were to determine compliance with the Permit to Install (PTI) 53-14. Benzie Crematory is currently a minor source for particulate matter (PM) criteria air pollutants. No National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations or New Source Performance Standards (NSPS) regulations are applicable for Benzie Crematory. It should be noted that the PTI has two references to NSPS regulations, however these PTI Conditions are to keep the crematory exempt from the federal NSPS for incinerators.

#### Evaluation Summary

The activities covered during this scheduled field inspection and records review appear to be in compliance with PTI 53-14. No further actions are necessary at this time. Specific permit conditions that were reviewed are discussed below.

#### Source Description

Benzie Crematory is a incinerator in the Northern portion of the Bennett-Barz Funeral Home & Cremation Services building. The Crematory uses a natural gas fired B&L Cremation Systems Inc. Phoenix II-1 Cremation Retort that is used to burn pathological (human) waste.

#### On-site Inspection:

During the field inspection it was mostly sunny with calm wind less than 5 miles per hour, and approximately 70 degrees Fahrenheit. The crematory was operating upon arrival. AQD met with an employee, Mr. Shawn Lowe, the Funeral Director of the facility. The crematory was the unit as described in the PTI, and has a maximum capacity of 1,000 pound charge weight and 150 pounds per hour burn rate. There are both temperature sensors and a temperature recording circular chart on the incinerator for recordkeeping purposes. Additionally, Mr. Lowe showed me the temperature readouts on the computer screen, which indicated the crematory was operating at a temperature of 1,650 degrees Fahrenheit, and there were 48 minutes remaining for the cremation. After the crematory is finished, there is a 2 hour cooling period with just fans running, and then the remains are collected and given to family members. The Stack is located on the eastern portion of the building, and was approximately 22 feet above ground surface. AQD observed 5 percent opacity coming from the stack.

#### Records Review:

**EUCREMATORY1:** EUCREMATORY1 is a natural gas fired B&L Cremation Systems Inc. Phoenix II-1, limited to 1,000 pounds of maximum charge and 150 pounds per hour burn rate used to incinerate human remains.

#### Emission Limits:

EUCREMATORY1 is limited to 0.20 pounds of particulate matter (PM) per 1000 pounds of exhaust gases corrected to 50% excess air. Compliance with this emission limit is determined through performance testing; however, compliance performance testing has not been requested by the DEQ at this time.

#### Material Limits:

Based on the records reviewed, the facility does not process any other waste other than pathological waste in the incinerator as described in the PTI. Additionally, the records showed that the incinerator did not burn more than 1,000 pounds of charge weight, where charge is the total weight of the material placed in the incinerator to be combusted. And as previously stated, only natural gas is used to fire EUCREMATORY1.

**Process/Operational Restrictions:**

Based on observations during the inspection and records reviewed, the incinerator operated at a temperature above the minimum 1600 degrees Fahrenheit required by the PTI.

Additionally, based discussions during the field inspection, the ashes are properly removed after each use. The incinerator is operated by a touch screen control panel that includes temperature sensors. The facility also records the temperature on a circular paper chart for recordkeeping. The facility appears to follow manufacturer recommendations. Additionally, the Cremation Retort was tested in October 2014, and then it was recalibrated after the first 100 cases on June 8, 2016. The Cremation Retort is scheduled to be recalibrated after 500 cases in October 2018.

**Testing/Sampling:**

There are no testing/Sampling Conditions applicable to EUCREMATORY1.

**Monitoring/Recordkeeping:**

As previously stated, the temperature in the secondary chamber is continuously monitored with a temperature sensor and a circular recording chart. The temperature wheels list the case number, name of charge, date of cremation, time of cremation, and the weight of charged combusted.

**Reporting:**

There are no Reporting Conditions applicable to EUCREMATORY1.

**Stack/Vent Restrictions**

During the inspection, AQD observed the stack at approximately 22 feet above ground surface and approximately 18 inches in diameter. The stack height and diameter appeared to be within permitted limits of the facility.

**Other Requirements:**

There are no Reporting Conditions applicable to EUCREMATORY1.

NAME

Lauren Cheus

DATE

8/15/18

SUPERVISOR

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