

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

P076942286

FACILITY: Paschal Burial Vault		SRN / ID: P0769
LOCATION: 15725 Steger Industrial Drive, HUDSON		DISTRICT: Jackson
CITY: HUDSON		COUNTY: LENAWEE
CONTACT:		ACTIVITY DATE: 11/02/2017
STAFF: Mike Kovalchick	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Inspection of 2 incinerators at 2 nearby adjacent facilities about 1 mile apart.		
RESOLVED COMPLAINTS:		

**Minor Source- (Note: This inspection report is for both SRN N5944 & SRN P0769 and identical reports have been placed in MACES under each SRN.)**

### Facility Contacts

Luke Paschal- Owner/Manager

L\_paschal@hotmail.com

ph 517-403-4967

Website: <http://www.paschalburialvaultllc.com>

### Purpose

On November 2, 2017, I conducted an unannounced compliance inspection of Paschal Burial Vault & Cremation Services (Company) located in Hudson, Michigan in Lenawee County. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, Permit to Install (PTI) # 313-96 which was issued on August 27, 1996 and PTI 177-16 issued on December 5, 2016.

### Facility Location

The 2 facilities are in commercial areas of Hudson. See aerial photo of the facility located on School street. An aerial photo of the Steger Industrial Drive location is not available.

### Facility Background

The Company has 2 incinerators used for cremation of human remains. The original incinerator is located at 431 School Street. Less than a mile away is the new incinerator which started operation in January 2017. It is in an industrial park at 15724 Steger Industrial Drive in Hudson.

The facility last had a full compliance inspection conducted in September of 2007. (The new location had not been previously inspected.)

### Regulatory Applicability

PTI 177-16 covers the new facility. PTI 313-96 covers the old facility.

### Arrival & Facility Contact

Visible emissions or odors were not observed upon my approach to the Company's facility. I arrived at 8:50 am, proceeded to the facility office to request access for an inspection, provided my identification and spoke with Luke Paschal (LP)-Owner/Manager of the facility. I informed him of my intent to conduct a facility inspection and to review the various records as necessary.

LP extended his full cooperation and fully addressed my questions.

### Pre-Inspection Meeting

We held a pre-inspection meeting at the main office in the older incinerator building. LP outlined that the 2

facilities are operated 7:30 to 4:30 pm six days a week. There are currently 5 employees.

LP indicated that old incinerator was in the middle of a cremation and the new incinerator was still warm from a cremation yesterday evening. LP says they want to move most of their business to the new location since that facility is setup for public viewing while the old incinerator is in industrial building. Future plans include adding a second incinerator at the new facility and using the old incinerator for pet cremations.

The older incinerator is being maintained by Patrick Crockett with Universal Cremation Systems out of Roscommon, Michigan. The newer incinerator is being maintained by Matthews International.

LP showed me the cremation log book that is maintained for older incinerator and how information is recorded in it. See Attachment (1). The cremation log book for new incinerator is maintained at the other facility. As of November 2<sup>nd</sup>, 450 cremations had been performed in the old incinerator and 341 had been performed in the new incinerator.

### **Onsite Inspection**

LP gave me a tour of the room housing each of the 2 incinerator units at the 2 different facilities.

The older incinerator was operating 1598 deg F. (See photo.) The incinerator appeared to be in excellent condition. Ventilation pipes were in good shape exiting out a stack on the roof. No opacity and only heat waves were seen exiting the stack. The stack appeared to be at least 19 feet off the ground meeting permit requirements.

LP indicated that human remains are generally placed in cardboard boxes prior to being cremated. Occasionally, they are burned in wooden caskets. Things like heart pace makers must be removed prior to the cremation since they represent an explosive hazard. (Type O and Type 4 types of waste are permitted to be burned in this incinerator.)

LP indicated that it takes about ten minutes to get the incinerator up to temperature and a typical cremation takes 2.5 to 3 hours. LP indicated they never observe any smoke.

LP indicated that the main flame inside the incinerator is centered directly over the chest region of the human remains in a downward direction. This causes eventual wear/ deterioration of the floor of the incinerator. He says it has been replaced 4 times since 1996. The side walls have only been replaced once.

Before we exited the first facility, LP walked me past the burial vault room where they use cement to manufacture burial vaults. The process is controlled by 2 dust collectors that went outside. It was somewhat dusty inside the burial vault room but didn't see any dust outside.

Next, we proceeded to the new facility. This location is surrounded by a large open area in all directions in an industrial park and appeared to be new.

LP gave me a tour of the facility which includes a large walk-in refrigerator, a large room where new caskets are stored, a viewing room which has a window facing the incinerator room, and the incinerator room with an incinerator (Matthews Model #IE43-PPII Plus) and a weight scale.

Attached photos show the incinerator, the exhaust stack, the control panel, circular temperature charts, the log book for the last 30 days and the weight scale.

The incinerator appeared to be in mint condition and almost completed automated. LP explained how the incinerator optimizes every burn and learns over time. The temperature of the primary chamber was 987 degrees F. and temperature of the secondary chamber was 886 degrees F. The incinerator was still warm from an incineration from the previous evening. LP indicated it takes only a very few minutes to get up to proper temperature. No smoke was seen from the exhaust stack which appeared to be the required 24 feet high.

LP showed me a large stack of circular incinerator temperature charts and the cremation log book for the new incinerator.

The circular charts are daily charts with each cremation hand annotated on the chart. It appears that temperature is maintained at 1700 degrees F. during the cremation in the afterburner chamber. (Permit limit is 1600 Deg. F.) The control panel shows the temperature for both the main chamber and the afterburner but only the

afterburner temperature is recorded on the circular chart.

The weight scale appeared to be in working order.

### **Recordkeeping/Permit Requirements Review**

Log books and the temperature circular charts showed that the required incinerator temperatures are being maintained.

Attachment (2) shows maintenance records for the new incinerator. Shows no real maintenance has been required for the first year of operation.

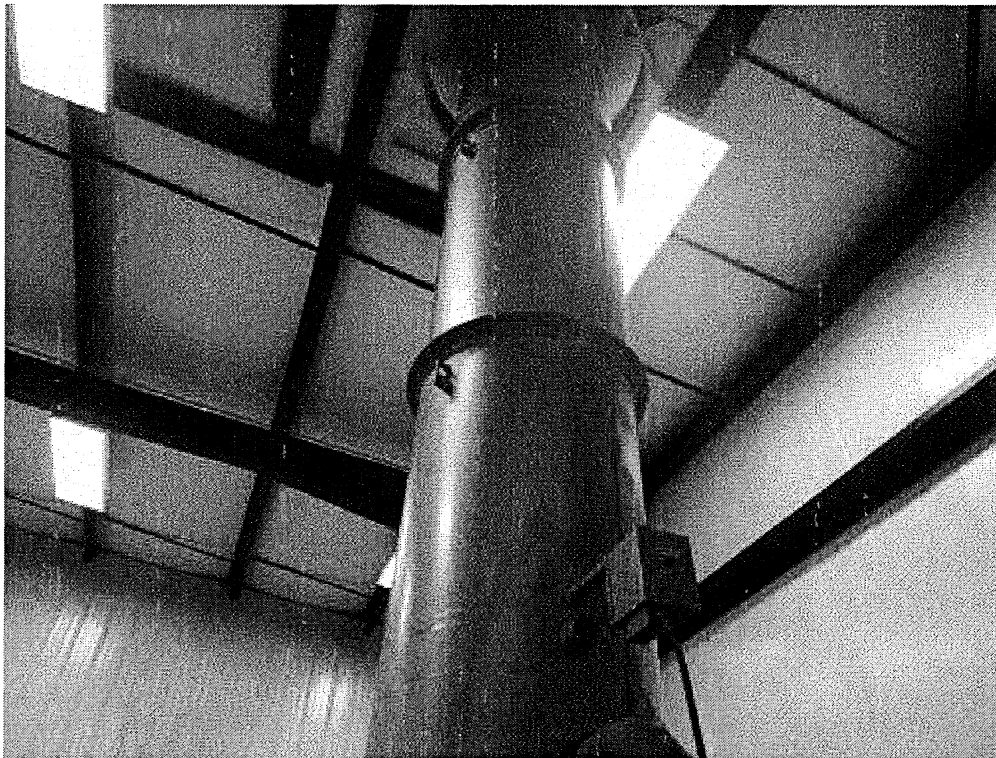
All other permit conditions are being met.

### **Post-Inspection Meeting**

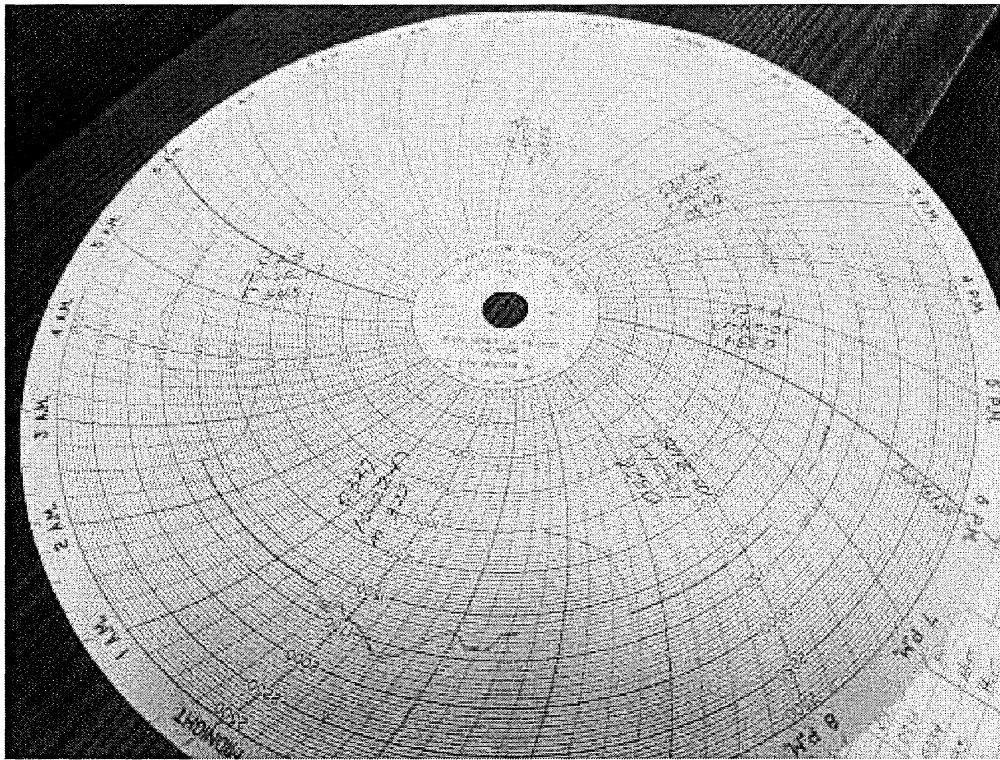
I held a brief post-inspection meeting with LP. I indicated that I would like him to forward any maintenance records that he had for the new incinerator but had no findings. I thanked LP for his time and cooperation, and I departed the facility at approximately 9:50 am.

### **Compliance Summary**

Both facilities are in compliance with the 2 PTI permits.



**Image 1(Exhaust stack)** : Exhaust ventilation pipe to roof exhaust stack/



**Image 2(Circular chart)** : Circular chart showing afterburner temp on new incinerator.

TIME OUT DATE	TAG #	REASON	PLANT OFF BY	COMPLETED BY	MILES	21
10-5-17	0298	Holt				
10-5-17		Holt		Holt 10-7	229	1200
10-5-17	0300	Holt		Holt 10-8	251	1200
10-4-17	0301	Holt		Holt 10-8	241	1200
10-4-17	0302	Holt		Holt 10-8	263	1200
10-5-17	0303	Holt		Holt 10-8	213	1200
10-5-17	0304	Holt		Holt 10-8	233	1200
10-5-17	0305	Holt		Holt 10-8	226	1200
10-5-17	0306	Holt		Holt 10-9	226	1200
10-5-17	0307	Holt		Holt 10-9	226	1200
10-10-17	0308	Holt		Holt 10-9	248	1200
10-10-17	0309	Holt		Holt 10-9	122	1300
10-10-17	0310	Holt		Holt 10-11	270	1200
10-11-17	0311	Holt		Holt 10-12	217	1200
10-11-17	0312	Holt		Holt 10-12	245	1200
10-12-17	0313	Holt		Holt 10-13	294	1200
10-13-17	0314	Holt		Holt 10-13	203	1200
10-13-17	0315	Holt		Holt 10-13	242	1200
10-13-17	0316	Holt		Holt 10-14	226	1200
10-15-17	0317	Holt		Holt 10-16	270	1200
10-15-17	0318	Holt		Holt 10-16	284	1200
10-16-17	0319	Holt		Holt 10-16	244	1200
10-17-17	0320	Holt		Holt 10-16	232	1200
10-17-17	0321	Holt		Holt 10-16	172	1200
10-17-17	0322	Holt		Holt 10-16	209	1200
10-17-17	0323	Holt		Holt 10-16	289	1200
10-17-17	0324	Holt		Holt 10-16	245	1200
10-17-17	0325	Holt		Holt 10-23	223	1200
10-20-17	0326	Holt		Holt 10-23	245	1200
10-20-17	0327	Holt		Holt 10-24	295	1200
10-20-17	0328	Holt		Holt 10-24	241	1200
10-20-17	0329	Holt				

Image 3(Log Book) : Log book for new incinerator Page 1



TIME IN DATE	TIME OUT DATE	TAG#	OPERATOR	HECKED UP BY DATE	RECOVERED BY DATE	MAILED DATE	W G H	23 T E M P
10-23-17 7:41 AM	10-24-17 9:53 AM	0330	Holt				195	1700
10-24-17 10:24 AM	10-24-17 8:07 PM	0331	Holt		Holt 10-24		151	1700
10-25-17 9:55 AM	10-25-17 2:25 PM	0332	Holt		Holt 10-25		400	1700
10-25-17 10:25 AM	10-25-17 8:29 PM	0333	Holt		Holt 10-25		152	1700
10-26-17 2:53 PM	10-27-17 8:07 AM	0334	Holt		Holt 10-27		522	1700
10-27-17 8:18 AM	10-28-17 10:53 AM	0335	Holt		Holt 10-29		142	1700
10-28-17 10:50 AM	10-28-17 10:53 AM	0336	Holt		Holt 10-28		120	1700
10-28-17 9:10 AM	10-28-17 8:00 PM	0337	Holt		Holt 11-1		158	1700
10-28-17 8:15 PM	10-28-17 8:24 AM	0338	Holt		Holt 11-1		288	1700
11-1-17 8:37 AM	11-1-17 3:12 PM	0339	Holt				272	1700
11-1-17 8:24 PM	11-1-17 7:45 PM	0340	Holt				159	1700
11-1-17 7:57 PM		0341	Holt				135	1700

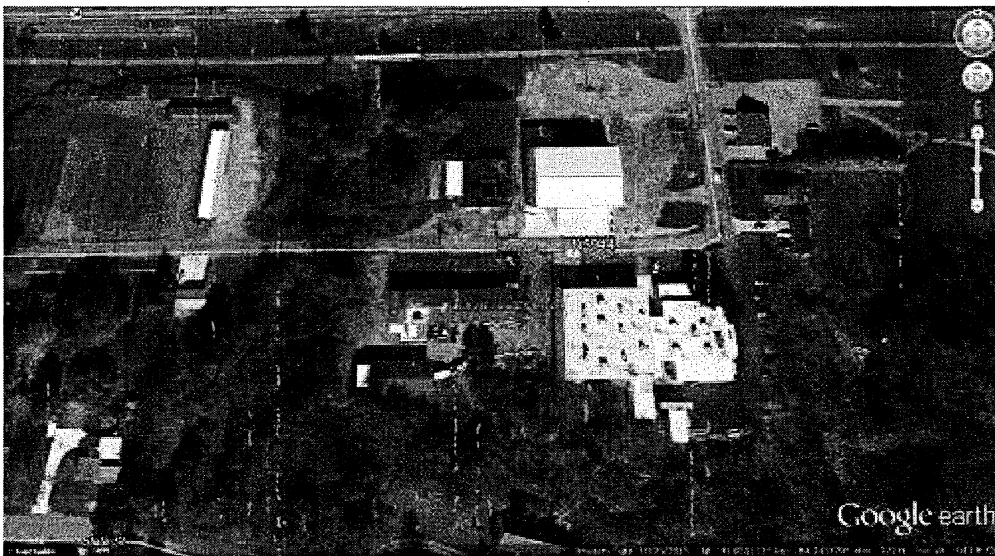
Image 4(Log book) : Log book for new incinerator Page 2

TIME IN DATE	TIME OUT DATE	TAG#	OPERATOR	HECKED UP BY DATE	RECOVERED BY DATE	MAILED DATE	W G H	23 T E M P
10-23-17 7:41 AM	10-24-17 9:53 AM	0330	Holt				195	1700
10-24-17 10:24 AM	10-24-17 8:07 PM	0331	Holt		Holt 10-24		151	1700
10-25-17 9:55 AM	10-25-17 2:25 PM	0332	Holt		Holt 10-25		400	1700
10-25-17 10:25 AM	10-25-17 8:29 PM	0333	Holt		Holt 10-25		152	1700
10-26-17 2:53 PM	10-27-17 8:07 AM	0334	Holt		Holt 10-27		522	1700
10-27-17 8:18 AM	10-28-17 10:53 AM	0335	Holt		Holt 10-29		142	1700
10-28-17 10:50 AM	10-28-17 10:53 AM	0336	Holt		Holt 10-28		120	1700
10-28-17 9:10 AM	10-28-17 8:00 PM	0337	Holt		Holt 11-1		158	1700
10-28-17 8:15 PM	10-28-17 8:24 AM	0338	Holt		Holt 11-1		288	1700
11-1-17 8:37 AM	11-1-17 3:12 PM	0339	Holt				272	1700
11-1-17 8:24 PM	11-1-17 7:45 PM	0340	Holt				159	1700
11-1-17 7:57 PM		0341	Holt				135	1700

Image 5(Weight scale) : Weight scale associated with new incinerator.



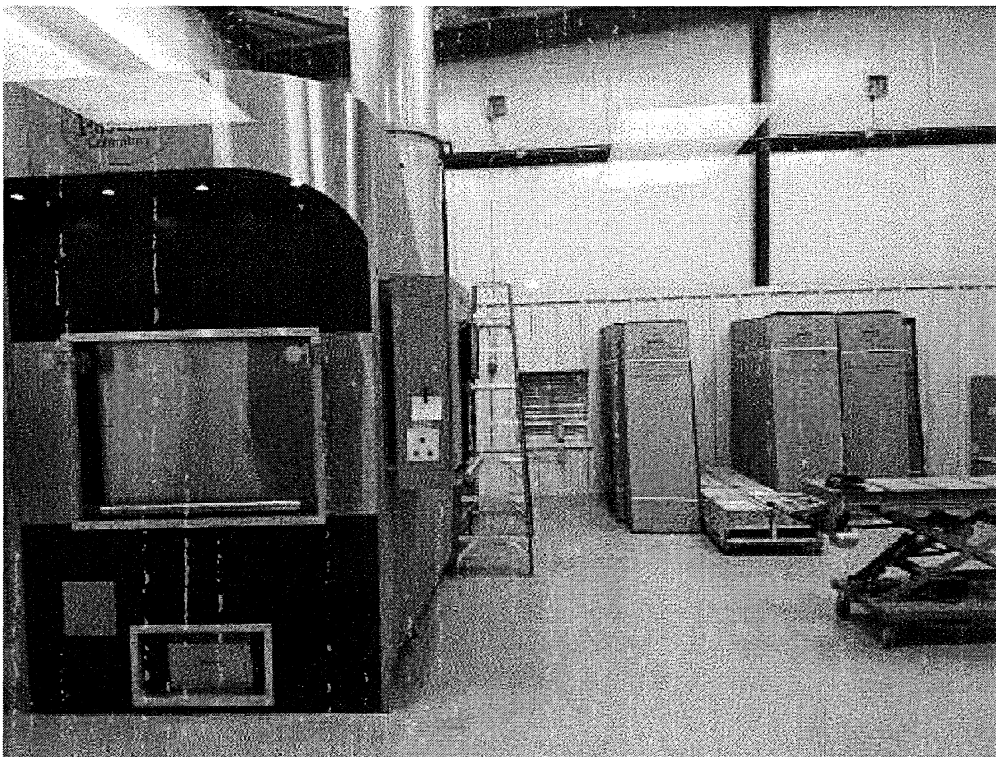
**Image 6(New Incinerator bldg)** : New incinerator building showing incinerator exhaust stack.



**Image 7(Aerial Photo)** : Aerial Photo-old incinerator location



**Image 8(Incinerator temp)** : Old incinerator temp.



**Image 9(New Incinerator)** : New incinerator.





**Image 10(Control Panel) :** Control Panel-new incinerator.

NAME M. Kovalchuk

DATE 11/6/2017

SUPERVISOR [Signature]