

N7552
manila
Genesee

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

N755250099

FACILITY: GENESEE CREMATION CENTER INC		SRN / ID: N7552
LOCATION: 10510 N HOLLY RD, HOLLY		DISTRICT: Lansing
CITY: HOLLY		COUNTY: GENESEE
CONTACT: Dustin Rice , Operations Manager		ACTIVITY DATE: 08/28/2019
STAFF: Daniel McGeen	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection, in response to concern of pharmaceutical waste reported to have been incinerated..		
RESOLVED COMPLAINTS:		

On 8/28/2019, the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an unannounced, scheduled inspection of Genesee Cremation Center Inc. The management company is Genesee Valley Vault, Inc.

Environmental contact:

Dustin Rice; Operations Manager; 810-695-5166

Purpose:

The purpose of the inspection was to check compliance with air use permits and the Michigan Air Pollution Control Rules, as well as to follow up on a concern that a crematory in the community of Holly was recently rumored to have incinerated pharmaceutical waste, at the request of a local law enforcement agency. .

Emission units:

Emission unit*	Emission unit description	Permit to Install (PTI) or exemption Rule	Compliance status
EUCREMATORY	Matthews Cremation Power-Pak II Ultra natural gas fired crematory, 150 lbs/hr maximum design capacity	PTI No. 301-05	Compliance
EUCREMATORY2	Matthews Cremation Power-Pak II Ultra natural gas fired crematory, 150 lbs/hr maximum design capacity	PTI No. 134-09	Noncompliance, for one-time instance of pharmaceutical waste incineration
EUCREMATORY3	Matthews Cremation Power-Pak I natural gas fired crematory, 150 lbs/hr maximum design capacity	PTI No. 11-17	Compliance
Spray paint cans	Commercially available cans of spray paint, done in paint booth	Rule 287(2)(b)	Compliance
Paint booth	Coating booth with 5 gallon pails of acrylic paint which are rolled on to plaques for vaults	Rule 287(2)(c)	Noncompliance, for lack of a particulate filter
Concrete batch plant	Concrete batch plant in adjacent building; used by Genesee Valley Vault Inc. to mix concrete, which is poured into molds to make burial vaults	Rule 289(d)	Compliance

*An *emission unit* is any part of a stationary source which emits or has the potential to emit an air contaminant.

Regulatory overview:

This facility is considered to be a true minor source, rather than a major source of air emissions. 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 (VOCs), lead, particulate matter smaller than 10 microns, and particulate matter smaller than 2.5 microns. It is also

considered a minor or *area source* for Hazardous Air Pollutants (HAPs), because it is not known 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.

As explained in the Eval Form Memo Fields for PTI No. 11-17, federal New Source Performance Standards (NSPS) applicability is based upon equipment type. Pathological waste incinerators are considered exempt from the federal NSPS for incinerators of any type, as long as the incinerators are burning 90% or more of pathological waste. Pathological waste is closest to medical/infectious waste, so there is a condition requiring the company to keep track of periods of time when only pathological waste is burned in the incinerator so that they can comply with the exemption from the hospital/medical/infectious waste incinerator regulations.

40 CFR Part 63 Subpart EEE is the *National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*. The crematory incinerators are not permitted to burn hazardous waste, so they are not subject to this subpart.

The crematory incinerators are not subject to other NESHAP regulations for incinerators because this facility is an area source rather than a major source of HAP emissions.

The federal regulation 40 CFR Part 63, Subpart JJJJJJ—*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* was written for area sources of HAPs. It is my understanding that there are no boilers onsite here. I have been advised that there is only a residential size hot water heater, to provide hot water for restrooms. It was described to me as less than 50 gallons in capacity. To meet the definition of a hot water heater in this area source Generally Achievable Control Technology (GACT) standard, the unit must be no more than 120 gallons in capacity. Pursuant to Section 63.11195(f), because it is below 120 gallons, it is exempt from Subpart JJJJJJ.

There are no solvent-based parts cleaners here, I have been advised, so they do not appear to be subject to the Michigan Air Pollution Control Rules which pertain to cold cleaners or vapor degreasers.

Fee status:

This facility is not considered fee-subject. It is not a Category I fee subject source, because it is not a major source for criteria pollutants. It is not a Category II fee-subject source because it is not a major source for Hazardous Air Pollutants (HAPs), nor is it subject to federal New Source Performance Standards. Additionally, it is not Category III fee-subject, because it is not subject to federal Maximum Achievable Control Technology standards. The facility is not required to submit an annual air emissions report via the Michigan Air Emissions Reporting System (MAERS).

Location:

The facility is located in a predominantly rural area, at the south end of an industrial park. However, there is a residence to the immediate east, on the opposite side of Holly Road, and a residence to the immediate south, on the opposite side of Ray Road. The residences appear to be about 200-300 feet from the building housing the crematory incinerators.

History:

It is my understanding that this facility began operating in 2006, and that Genesee Valley Vault Inc., which is the management company for the facility, began operating in 1984. AQD has never received a complaint regarding this facility, prior to a concern that was brought to AQD's attention in 2019 that the company may have incinerated pharmaceutical waste, reportedly at the request of a local law enforcement agency.

Safety apparel required:

Safety glasses with side shields.

Arrival:

This was an unannounced inspection. AQD was represented by Permit Engineer Marina Ostaszewski and Secretary Kelly DeWitt, for educational purposes, in addition to myself. We could not detect any odors while driving south on Holly Road, east of the facility, but my colleagues identified heat waves from one or more incinerator stacks. As we drove back north on Holly Road, we could not detect odors, but my colleagues identified heat waves from all 3 incinerator stacks. Weather conditions were partly sunny, and 75 degrees F, with winds out of the west at 15 miles per hour.

We arrived onsite at 2:06 PM. No visible emissions were detectable from the incinerator stacks, only heat waves. We met with Mr. Dustin Rice, Facility Operations Manager. I had with me my identification/credentials, per AQD procedure, although Mr. Rice remembered me from the 8/16/2017 inspection.

I explained that we were here to follow up on a concern that had been brought to our attention. I asked if they had ever been approached by a law enforcement agency to burn any collected pharmaceutical waste, and if so, what was the outcome of that discussion. Mr. Rice explained that they had been approached a few years ago by a law enforcement agency, with a small bag of pharmaceutical waste. He indicated that they burned this one bag, believing it to be okay. However, he explained that when they were suddenly contacted by additional agencies asking them to burn drug waste, they looked in their permit, and saw that they are not allowed to burn that kind of waste. He explained that they told those additional callers that they could not burn the waste for them, because it was not allowed by their permit.

I explained that a Violation Notice (VN) would be sent, for the one-time incineration of pharmaceutical waste. Mr. Rice did not remember the year this incident took place, but thought it was a few years ago. I was subsequently advised, calling the company at a later date,, and speaking with an operator, that the incinerator which had been utilized to burn the pharmaceutical waste was EUCREMATORY2, as EUCREMATORY3 had not been installed yet.

Inspection:

All 3 crematory incinerators were operating, at the time of the inspection. There were no odors of human remains detectable in the room where the three incinerators and a freezer are located.

EUCREMATORY and EUCREMATORY2 are identical, and are both Power Pak II units. EUCREMATORY3 is a Power Pak 1 unit. It is described as virtually an identical unit, except for having a digital control system.

The past month, they have done an unusual number of cremations here, as shown by their new computerized recordkeeping system, on a large, wall-mounted digital screen. The new recordkeeping system looked to contain all information required by the permit for recordkeeping, as well as additional information.

At approximately 1:48 PM, incinerator temperatures, as shown instantaneously on the control panels for the 3 units, were as follows:

EUCREMATORY:

EUCREMATORY was operating. Secondary chamber temperatures were instantaneously:

- PV (Process Value): 1749 degrees F
- SP (Set Point): 1675 degrees F

The set point for secondary chamber temperature for this unit is 1,675 degrees F, as shown above. This is higher than the permit's required minimum secondary chamber temperature of 1,600 degrees F.

EUCREMATORY2:

EUCREMATORY2 secondary chamber temperature data was collected as follows:

- PV (Process value): 1692 degrees F
- SP (Set Point): 1675 degrees F

The set point for secondary chamber temperature for this unit is 1,675 degrees F, as shown above. This is higher than the permit's required minimum secondary chamber temperature of 1,450 degrees F for this unit.

EUCREMATORY3:

At 10:48 PM, EUCREMATORY3 secondary chamber temperature data on the digital control panel was as follows:

- Master timer: 1:348(meaning 1 hour and 48 minutes remaining to the cremation cycle)
- A/C temp.: 1710 degrees F
- Pollution system: OK
- Door: closed

I was informed that the set point for secondary chamber temperature for this unit is 1,675 degrees F. This is higher than the permit's required minimum temperature of 1,600 degrees F.

Compliance with the PTIs was checked, as follows:

EUCREMATORY; PTI No. 301-05:

Matthews Cremation Power-Pak II Ultra natural gas fired crematory, 150 lbs/hr maximum design capacity.

Note: I have been advised that their crematory incinerators typically operate at a rate of about 100 lbs/hr, below the maximum design capacity of 150 lbs/hr.

Compliance with Special Conditions of PTI No. 301-05:

Emission Limits:

Special Condition (SC) No. 1.1 sets a particulate matter limit of 0.20 lbs per 1,000 lbs of exhaust gas, corrected to 50% excess air; based on Michigan Air Pollution Control Rule 331. The only way to verify compliance would be with a stack test; however, based upon the incinerator operating with 0% opacity, it is expected that particulate emissions would be well below the limit.

Material Usage Limits:

SC No. 1.2 states that only pathological wastes shall be burned in EUCREMATORY. The condition includes the definition of pathological wastes from 40 CFR 60.51c. This condition, as written, does not prohibit animal remains, but I was advised they cremate human remains here

M. Ostaszewski and K. DeWitt visually verified that human remains were indeed being cremated at this facility.

Process/Operational Limits:

SC No. 1.3 prohibits combusting waste (pathological waste) in EUCREMATORY unless a minimum temperature of 1600 degrees F and a minimum retention time of 1.0 seconds in the secondary

combustion chamber are maintained. Instantaneous observation of the temperature gauge for EUCREMATORY at roughly 1:48 PM showed that the actual process value was 1749 degrees F. The set point for the secondary chamber was 1675 degrees F, above the required minimum temperature. The retention time is 1.63 seconds, from the permit application. They appear to be in compliance with SC No. 1.3.

SC No. 1.4 states that the incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions. EUCREMATORY appeared to be in compliance with this condition. A list of recommended operating and maintenance procedures is specified in Appendix A, below.

APPENDIX A

Incinerator Operation and Maintenance Guidelines

1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements. *It is my understanding that they have trained operators. Steven Prescott is their main operator, I have been told.*
2. Clean grates before each day's operation (more often if necessary), and dispose of the ashes properly. *I have been informed that the cremains are swept out after every cremation.*
3. Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. Preheat the unit with the burners (not with waste) for at least 15 minutes. *I have been advised that they do not combust waste until the temperature of the secondary combustion chamber is above the minimum required 1,600 degrees F.*
4. Do not overload the incinerator. Stay within the loading rates and follow the manufacturer's instructions. *I have been told that they stay below the maximum allowable charge weight, and below the maximum burn rate capacity.*
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. *I have been told that they briefly open the charging door a short distance to check when the cremation cycle is nearing completion.*
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). *I was told that they only burn the remains of deceased people, other than the one-time instance of burning pharmaceutical waste in one of the other crematory incinerators (EUCREMATORY2). EUCREMATORY appeared to be efficiently combusting today.*
7. Keep the combustion air adjusted, according to the manufacturer's instructions. *I have been informed that the unit adjusts its own combustion air automatically.*
8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash. *In 2017, I was told they watch the stack frequently, and that the unit self regulates, with its own opacity monitor, set to adjust operations if opacity reaches 15%. I was told that if 15% is reached, air is routed to the secondary chamber, and the primary burner shuts off, while the secondary burner keeps going.*
9. Post a copy of the manufacturer's manual and this Guideline near the incinerator. *In 2017, a hard copy and a CD manual were located at a desk, in the nearby office, which is located in the same building as the incinerators.*
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. *In 2017, I was informed that they do certain quarterly maintenance activities, and they have a contract with a company to perform other maintenance on the unit. In 2017, Mr. Rice provided a copy of 7/26/2016 inspection forms for EUCREMATORY AND EUCREMATORY2, so I did not ask for maintenance records at this time.*
11. Follow manufacturer's operation and maintenance guidelines. *It is my understanding that they are doing this.*

Monitoring:

SC No. 1.5 requires the permittee to install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY on a continuous basis. I observed a circular chart recorder on the side of the unit. Secondary chamber temperatures were shown, via the ink recording pen, to be above the permitted minimum temperature.

Recordkeeping/Reporting Notification

SC No. 1.6 requires the permittee to keep daily records of the time, description, and weight of the waste combusted in EUCREMATORY. I was shown that the circular chart recordings document the start and also the end time of the cremation cycle, while they have records onsite for each set of human remains, that include the name of the deceased, and an ID number for the human remains, as well as an ID number for the cremation. The cremation ID number represents the number of cremations so far this year. The weight of the human remains is written down on the circular temperature chart for each cremation, along with the ID number and the date of the cremation, Mr. Rice showed me. They appear to be satisfying this permit requirement.

SC No. 1.7 requires the keeping, in a satisfactory manner, of secondary combustion chamber temperature records for EUCREMATORY, and they appeared to be meeting this.

Stack/vent restriction:

SC No. 1.8 states that stack height must be 18 feet above ground level, and maximum exhaust diameter must be 20 inches or less. The stack for EUCREMATORY appeared to be meeting this requirement.

EUCREMATORY2; PTI No. 134-09:

Matthews Cremation Power-Pak II Ultra natural gas fired crematory, 150 lbs/hr maximum design capacity.

Note: I was advised that their crematory incinerators typically operate at a rate of about 100 lbs/hr, below the maximum design capacity of 150 lbs/hr.

Compliance with Special Conditions of PTI No. 134-09:

*Note: the formatting of PTI No. 134-09 is different than that of the previously discussed PTI, No. 301-05.

I. EMISSION LIMITS:

Special Condition (SC) No. I.1 sets a particulate matter limit of 0.20 lbs per 1,000 lbs of exhaust gas, corrected to 50% excess air; based on Michigan Air Pollution Control Rule 331. The only way to verify compliance would be with a stack test; however, based upon the incinerator operating with 0% opacity, it is expected that particulate emissions would be well below the limit.

II. MATERIAL LIMITS:

SC No. II. 1 states that only pathological waste be incinerated in the unit, and emphasizes that only human pathological waste and associated materials shall be burned. This is more specific than the material limit condition in PTI No. 301-05, which stated that only pathological waste could be burned.

As discussed earlier in this activity report, I asked if they had ever been approached by a law enforcement agency, and asked to incinerate any drug waste. Mr. Rice said that a few years ago, they were approached by a law enforcement agency who asked them to incinerate a bag of pharmaceutical waste, which may have been from a household take back program. He explained that they incinerated this waste, without realizing it was not allowed by their air use permit(s).

Mr. Rice indicated that they subsequently began getting phone calls from other agencies with drug waste to dispose of, they read their permit, and realized this kind of waste was not allowed. He informed me that they turned those callers away, explaining their air permits did not allow this. I advised that this was an appropriate answer to the callers. For the one-time instance of burning pharmaceutical waste,

however, a VN will be sent.

At a later date (9/17/2019), I called Genesee Valley vault, to ask which incinerator the pharmaceutical waste had been burned in, since I needed to know which air permit had been violated. TJ of Genesee Valley Vault assisted by determining that Unit 2 was the incinerator which had been used. He did not recall the exact year, other than it pre-dated the 2017 installation of the newest incinerator. He recalled that the bag of pharmaceutical waste was small, no bigger than a grocery bag.

SC No. II. 2 states that the permittee shall not charge more than 750 lbs per charge in EUCREMATORY2. I was informed that they have never had a charge weight reach or exceed 750 lbs, and that 150-250 lbs is a normal charge weight.

SC No. II. 3 prohibits burning any fuel other than natural gas. I was informed that they burn only natural gas as fuel in EUCREMATORY2.

III. PROCESS/OPERATIONAL LIMITS:

SC No. III. 1 prohibits combusting waste (pathological waste) in EUCREMATORY2 unless a minimum temperature of 1450 degrees F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. Instantaneous observation of the temperature gauge for EUCREMATORY2 at roughly 1:48 PM showed that the actual process value was 1692 degrees F. The set point for the secondary chamber was 1675 degrees F, above the required minimum temperature. The retention time is 2.2 seconds, from the permit application.

SC No. III.2 states that the incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions. EUCREMATORY2 appeared to be in compliance with this condition. A list of recommended operating and maintenance procedures is specified in Appendix A, below.

APPENDIX A

Incinerator Operation and Maintenance Guidelines

1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements. *It is my understanding that they have trained operators. Steven Prescott is their main operator, I have been told.*
2. Clean grates before each day's operation (more often if necessary), and dispose of the ashes properly. *I have been informed that the cremains are swept out after every cremation.*
3. Preheat the unit with burners (not with waste) for at least 15 minutes. *I have been advised that they do not combust waste until the temperature of the secondary combustion chamber is above the minimum required 1,600 degrees F.*
4. Do not overload the incinerator. Stay within the loading rates and follow the manufacturer's instructions. *I have been told that they stay below the maximum allowable charge weight.*
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. *I have been told that they briefly open the charging door a short distance to check when the cremation cycle is nearing completion..*
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). *I was told that they burn the remains of deceased people, other than the one-time instance of burning pharmaceutical waste in EUCREMATORY2. EUCREMATORY2 appeared to be efficiently combusting today.*
7. Keep the combustion air adjusted, according to the manufacturer's instructions. *I have been informed that the unit adjusts its own combustion air automatically.*
8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash. *In 2017, I was told they watch the stack frequently, and that the unit self regulates, with its own opacity monitor, set to adjust operations if opacity reaches 15%.*
9. Post a copy of the manufacturer's manual and this Guideline near the incinerator. *A hard copy and a CD manual were located at a desk, in the nearby office, which is located in the same building as the incinerators.*
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. *In 2017, I was informed that they do certain quarterly maintenance activities, and they have a contract with a company to perform other maintenance on the unit. In 2017, Mr. Rice provided a copy of 7/26/2016 inspection forms for EUCREMATORY AND EUCREMATORY2, so I did not request maintenance records at this time.*

11. Follow manufacturer's operation and maintenance guidelines. *It is my understanding that they are doing this.*

IV. DESIGN/EQUIPMENT PARAMETERS:

SC No. IV.1 states that the permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY2 on a continuous basis. I observed a circular chart recorder on the side of the unit. Secondary chamber temperatures were above the permitted minimum. They appear to be satisfying this permit condition.

V. TESTING/SAMPLING:

Nonapplicable (NA).

VI. MONITORING/RECORDKEEPING:

SC No. VI. 1 requires the permittee to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY2 on a continuous basis. It appears that this is being done.

SC No. VI.2 requires the permittee to keep daily records of the time, description, and weight of waste combusted in EUCREMATORY2. I was shown that the circular chart recordings document the start and also the end time of the cremation cycle, while they have records onsite for each set of human remains, that include the name of the deceased, and an ID number for the human remains, as well as an ID number for the cremation. The cremation ID number represents the number of cremations so far this year. The weight of the human remains is written down on the circular chart for each cremation, along with the ID number and the date of the cremation, Mr. Rice showed me.

SC No. VI.3 requires the permittee to keep secondary combustion chamber temperature records for EUCREMATORY2. It is my understanding that they are doing this.

VII. REPORTING:

NA.

VIII. STACK/VENT RESTRICTIONS

SC No. VIII.1 requires a stack height of 20 feet above ground level, with a maximum exhaust diameter of 20 inches. Mr. Rice has previously advised me that all their exhaust stacks are 22 to 23 feet tall. They appeared to be meeting this condition.

IX. OTHER REQUIREMENTS:

NA.

EUCREMATORY3; PTI No. 11-17:

Matthews Cremation Power-Pak I natural gas fired crematory, 150 lbs/hr maximum design capacity.

Note: I was advised that their crematory incinerators typically operate at a rate of about 100 lbs/hr, below the maximum design capacity of 150 lbs/hr.

Compliance with Special Conditions of PTI No. 11-17:

Note: the formatting of PTI No. 11-17 is different than that of the previously discussed PTIs, Nos. 301-05 and 134-09.

I. EMISSION LIMITS:

SC No. I. 1 sets a particulate matter limit of 0.20 lbs per 1,000 lbs of exhaust gas, corrected to 50% excess air; based on Michigan Air Pollution Control Rule 331. The only way to verify compliance would be with a stack test; however, based upon the incinerator operating with 0% opacity, it is expected that particulate emissions would be well below the limit.

II. MATERIAL LIMITS:

SC No. II. 1: states that only pathological waste be incinerated in the unit, and emphasizes that only human pathological waste and associated materials shall be burned. This is more specific than the material limit condition in PTI No. 301-05, which stated that only pathological waste could be burned. It is my understanding that they only burn human pathological remains.

Observation of the EUCREAMTORY3 by M. Ostaszewski and K. DeWitt, when the charging door was opened briefly, showed that human remains were indeed being cremated at this facility.

SC No. II. 2 states that the permittee shall not charge more than 750 lbs per charge in EUCREAMTORY3. I was informed that they have never had a charge weight reach or exceed 750 lbs, and that 150-250 lbs is a normal charge weight.

SC No. II.3 prohibits burning any fuel other than natural gas. I was informed that they burn only natural gas as fuel in EUCREAMTORY3.

III. PROCESS/OPERATIONAL RESTRICTIONS:

SC No. III. 1 prohibits combusting waste (pathological waste) in EUCREAMTORY2 unless a minimum temperature of 1450 degrees F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. Instantaneous observation of the temperature gauge for EUCREAMTORY3 at 1:48 PM showed that the actual process value was 1710 degrees F. I was told that the set point for the secondary chamber is 1675 degrees F, above the required minimum temperature. The retention time is 1.83 seconds, from the permit application. They appear to be in compliance with SC No. 1.3.

SC No. III. 2 states that the incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions. EUCREAMTORY2 appeared to be in compliance with this condition. A list of recommended operating and maintenance procedures is specified in Appendix A, below

APPENDIX A

Incinerator Operation and Maintenance Guidelines

1. Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements. *It is my understanding that they have trained operators. Steven Prescott is their main operator, I was told.*
2. Clean grates before each day's operation (more often if necessary), and dispose of the ashes properly. *I have been informed that the cremains are swept out after every cremation.*
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. *I have*

been advised that they do not combust waste until the temperature of the secondary combustion chamber is above the minimum required 1,600 degrees F.

4. Do not overload the incinerator. Stay within the loading rates and follow the manufacturer's instructions. *I have been told that they stay below the maximum allowable charge weight.*
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. *I have been told that they briefly open the charging door a short distance to check when the cremation cycle is nearing completion.*
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). *I was told that they burn the remains of deceased people, other than the one-time instance of burning pharmaceutical waste in one of the other crematory incinerators (EUCREMATORY2). Today, M. Ostaszewski and K. DeWitt observed human remains burning in EUCREMATORY3. EUCREMATORY3 appeared to be combusting efficiently.*
7. Keep the combustion air adjusted, according to the manufacturer's instructions. *I have been informed that the unit adjusts its own combustion air automatically.*
8. Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash. *I have been told they watch the stack frequently, and that the unit self regulates, with its own opacity monitor, set to adjust operations if opacity reaches 15%.*
9. Post a copy of the manufacturer's manual and this Guideline near the incinerator. In 2017, a hard copy and a CD manual were located at a desk, in the nearby office, which is located in the same building as the incinerators.
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. *In 2017, I was informed that they do certain quarterly maintenance activities, and they have a contract with a company to perform other maintenance on the unit. In 2017, Mr. Rice provided a copy of 7/26/2016 inspection forms for EUCREMATORY AND EUCREMATORY2, so I did not ask for additional copies of records today.*
11. Follow manufacturer's operation and maintenance guidelines. *It is my understanding that they are doing this.*

IV. DESIGN/EQUIPMENT PARAMETERS:

SC No. IV. 1 states that the permittee shall not operate EUCREMATORY3 unless the secondary combustion chamber with afterburner is installed, maintained, and operated in a manner satisfactory to the AQD District Supervisor. based upon temperature data seen instantaneously and on the circular recording chart, and on the 0% opacity from the exhaust stack, it appeared that this permit condition is being met.

SC No. IV. 2 requires the permittee to install, calibrate, maintain, and operate, a device to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY3 on a continuous basis. I observed a circular chart recorder on the side of the unit, which records the secondary chamber temperature.

SC No. IV. 3 requires that the permittee maintain a scale at the facility for the purpose of verifying the charge weight. I n 2017, I was informed that they do maintain a scale at the site.

V. TESTING/SAMPLING:

NA.

VI. MONITORING/RECORDKEEPING:

SC No. VI. 1 states that the permittee shall complete all required records in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month for the previous calendar month. It is my understanding that the records are typically filled out on the day of cremation, and that the temperature is recorded during the cremation itself.

SC No. VI.2 requires the permittee to monitor and record the temperature in the secondary combustion chamber of EUCREMATORY3 ona continuous basis. I observed this being done on a circular chart

recording.

SC No. VI.3 requires the permittee to keep daily records of the time, description, and weight of waste combusted in EUCREMATORY3. I was shown that the circular chart recordings document the start and also the end time of the cremation cycle, while they have records onsite for each set of human remains, that include the name of the deceased, and an ID number for the human remains, as well as an ID number for the cremation. The cremation ID number represents the number of cremations so far this year. The weight of the human remains is written down on the circular chart for each cremation, along with the ID number and the date of the cremation, Mr. Rice showed me.

SC No. VI. 4 requires that the permittee keep records on a calendar quarter basis of the periods of time when only pathological waste is burned. Daily records are kept, during each quarter of the year, of the waste they burn. It is my understanding that all of the waste they burn onsite is pathological waste, other than the single reported historical instance where pharmaceutical waste was burned in EUCREMATORY2. Human remains are contained within boxes or sometimes caskets, but containers used to contain human remains appear to be included in the definition of pathological wastes found in 40 CFR 60.51c. They appear to be meeting this permit condition for EUCREMATORY3.

SC No. VI. 5 requires that the permittee keep secondary combustion chamber records for EUCREMATORY3. I observed the circular chart being recorded today for the operation of EUCREMATORY3. It is my understanding that these records are stored onsite.

SC No. VI. 6 requires that the permittee keep a record of all service, maintenance, and equipment inspections for EUCREMATORY3. My understanding is that this will be done for EUCREMATORY#, as it undergoes service, maintenance, and inspections.

VII. REPORTING:

NA.

VIII. STACK/VENT RESTRICTIONS

SC No. VIII. 1 requires an exhaust stack height of 22.8 feet above ground level, and a maximum exhaust diameter of 20 inches. Mr. Rice informed me that all of their exhaust stack heights are 22-23 feet. My visual assessment was that the stack height appeared to be appropriate for CREMATORY3.

IX. OTHER REQUIREMENTS:

NA.

Spray paint cans; Rule 287(2)(b):

There is a small coating booth onsite. it is my understanding that it is used for painting things such as plaques on burial vaults. Some of the painting is done with spray cans, I was told. A number of spray cans could be seen along the interior walls of the paint booth. The booth was not operating at the time of the inspection. The use of spray cans for coating application has for years been considered exempt under Rule 287(b). This rule was revised as Rule 287(2)(b) on 12/20/2016.

Rule 287(2)(b) exempts the following from the requirement to obtain a permit to install:

(b) A surface coating process that uses only hand-held aerosol spray cans, including the puncturing and disposing of the spray cans, or other coatings that are manually applied from containers not to exceed 8 ounces in size.

Note: Prior to 12/20/2016, there was no maximum size allowed for spray cans. I checked the size of the spray cans in the spray booth today, and some appeared to be 11 oz. or more. These could be included in paint use under the Rule 287(2)(c) exemption, discussed below.

Coating booth; Rule 287(2)(c):

I was informed that paint is applied in the coating booth with either spray cans (discussed above) or by rolling on. The rolled on paint is acrylic, I was told. I observed a number of 5 gallon containers of paint along the interior wall of the paint booth. The lids all appeared to be closed.

The coating booth was not operating at the time of the inspection. There was an exhaust fan in the south facing wall, but no particulate filter. The Rule 287(2)(c) exemption requires that an exhaust system exclusively serving coating equipment must be equipped with a particulate control system. In 2017, I had discussed this with Mr. Rice, who wrote it down on a work order board, for their employees to follow up on. Compliance status for this emission unit is listed as noncompliance, for lack of a particulate filter. The rolling on of acrylic paint is not likely to cause particulate emissions, but the use of spray cans over 8 oz. would be expected to emit a small amount of particulate. This will be added to the VN, and installation of a dry particulate filter would be an appropriate resolution.

The Rule 287(2)(c) exemptions also requires that coating use rate be no more than 200 gallons as applied, minus water, per month; i.e. for a coating which is 50% water, 400 gallons of that coating could actually be used per month, with the water subtracted.

In 2017, I did advise that they keep paint usage records for the acrylic paint that they roll on, instead of just paint purchase records, for the Rule 287(2)(c) exemption. Over the course of an entire year, I was told that they might purchase around 200 gallons of paint, so in no single month would they expect to use 200 gallons of paint.

The Rule 287(2)(c) exemption exempts the following:

- (c) A surface coating line if all of the following conditions are met:
- (i) The coating use rate is not more than 200 gallons, as applied, minus water, per month.
 - (ii) Any exhaust system that serves only coating spray equipment is supplied with a dry filter control or water wash control which is installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator develops a plan which provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.
 - (iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the department upon request.

8/18/2017, I attached a transmittal slip to a copy of the latest edition of *The Permit to Install Handbook* (January 2017 edition), to be mailed to Mr. Rice.

Concrete batch plant at Genesee Valley Vault; Inc.; Rule 289(2)(d):

The concrete batch plant of Genesee Valley Vault, Inc., is located inside the adjacent building to the north. It is used to mix concrete which is then poured into large metal molds, to make burial vaults. I was told that they bought this building and the associated equipment from Mid-Michigan Concrete two years ago. Mid-Michigan Concrete does not appear in the AQD's MACES database, nor in AQD's Permit Cards database. There does not appear to be an air permit associated with this batch plant, but it appeared suitable to qualify for the Rule 289(2)(d) exemption for batch plants.

Rule 289(2)(d) exempts the following:

- (d) A concrete batch plant that meets all of the following requirements:
- (i) The plant shall produce not more than 200,000 cubic yards per year.

- (ii) The plant shall use a fabric filter dust collector, a slurry mixer system, a drop chute, a mixer flap gate, or an enclosure for truck loading operations.
- (iii) All cement handling operations, such as silo loading and cement weighing hoppers, shall either be enclosed by a building or equipped with a fabric filter dust control.
- (iv) The owner or operator shall keep monthly records of the cubic yards of concrete produced.
- (v) Before commencing operations, the owner or operator shall notify the appropriate district supervisor of the location where the concrete batch plant will be operating under this exemption.
- (vi) The concrete batch plant shall be located not less than 250 feet from any residential or commercial establishment or place of public assembly unless all of the cement handling operations, excluding the cement silo storage and loading operations, are enclosed within at least a 3-sided structure.
- (vii) The owner or operator shall implement the following fugitive dust plan:
 - (A) The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve.
 - (B) On-site vehicles shall be loaded to prevent their contents from dropping, leaking, blowing, or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any sideboard, side panel, or tailgate. Otherwise, the truck shall be tarped.
 - (C) All of the following provisions apply for site roadways and the plant yard:
 - (1) The dust on the site roadways and the plant yard shall be controlled by applications of water, calcium chloride, or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet an opacity limit of 5%.
 - (2) All paved roadways and plant yards shall be swept as needed between applications.
 - (3) Any material spillage on roads shall be cleaned up immediately.
 - (4) A record of all applications of dust suppressants and roadway and plant yard sweepings shall be kept for the most recent 5-year period and be made available to the department upon request.
 - (D) All of the following provisions apply for storage piles:
 - (1) Stockpiling of all nonmetallic minerals shall be performed to minimize drop distance and control potential dust problems.
 - (2) Stockpiles shall be watered on an as-needed basis in order to meet an opacity limit of 5%. Equipment to apply water or dust suppressant shall be available at the site or on call for use at the site within a given operating day.
 - (3) A record of all watering shall be kept on file for the most recent 5-year period and be made available to the department upon request.
 - (E) The provisions and procedures of this fugitive dust plan are subject to adjustment by written notification from the department if, following an inspection, the department determines the fugitive dust requirements or permitted opacity limits are not being met.

The batch plant was not operating at the time of the inspection. There is some minor enclosure on the unit, in addition to the enclosure provided by the building which houses it. The Rule 289(2)(d) exemption for concrete batch plants considers enclosure to be an acceptable control option for concrete mixing and cement handling processes.

It is my understanding that the batch plant produces less than 200,000 cubic yards of concrete per year, which is the maximum throughput allowed under the exemption. He indicated that the unit produces considerably less than that. I was told that they operate the plant about 4 times per week, and produce about 3 yards of concrete at a time. The inside of the building appeared clean.

There were indoor and outdoor storage areas for aggregate materials, with the storage areas having three sides each. There was a very small, unpaved yard area, but the ground was wet from recent rains. There was a cement storage silo, located outdoors. There were no visible emissions of dust from the raw material storage.

I was advised that they apply a form release agent to the molds for the concrete burial vaults. Mr. Rice said that a 250 gallon tote of this material lasts them all year. It is therefore very likely that the use of this material would fall well below the 200 gallons minus water per month exemption threshold of Rule 287(2)(c).

Conclusion:

The facility was clean and neat, and overall appeared to be in compliance with their permits today.. The main instance of noncompliance that could be identified was described as a one-time event a few years ago, when a bag of pharmaceutical waste had been incinerated in EUCREMATORY2, at the request of a local law enforcement agency. The other instance was extremely minor, for lack of a particulate filter on the permit-exempt coating booth. A VN will be sent, to identify the noncompliance and require a written response with a corrective action plan.

NAME 

DATE 9/28/2019

SUPERVISOR 