



west virginia department of environmental protection

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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2640B
Plant ID No.: 061-00145
Applicant: High Meadow Pet Crematory LLC (High Meadow)
Facility Name: Monongalia County, WV
Location: Monongalia County, WV
NAICS Code: 812220 - Cemeteries and Crematories
Application Type: Modification
Received Date: February 3, 2015
Engineer Assigned: John Legg
Fee Amount: \$1,000.00
Date Received: February 6, 2015
Complete Date: February 7, 2015
Due Date: May 5, 2015
Applicant Ad Date: January 29, 2015
Newspaper: *The Dominion Post*
UTM's: Easting: 583.895 km Northing: 4,374.7448 km Zone: 17
Lat/Long Coordinates: Latitude: 39.518252 Longitude: -80.023993
Description: Installation of a second Therm-Tec Model S27T Animal Cremation Incinerator. The old incinerator's operating hours will be increased to 3,640 hr/yr (10 hr/day; 7 day/wk; 52 wk/yr) from 2,080 hr/yr (8 hr/day; 5 day/wk; 52 wk/yr) to match the new incinerator's operating hours. The old incinerator's annual processing weight of animal carcasses will be increased to 154.7 ton/yr from 88.4 ton/yr to match the new incinerator's processing weight.

DESCRIPTION OF PROCESS

High Meadow proposes to construct a second identical, propane-fired Therm-Tec, Inc. Model S27T animal cremation incinerator.

The new unit will be delivered complete and self-contained except for attaching the exhaust stack and connecting the unit to the propane fuel line and electric wiring. After

installation, the manufacturer's technicians will fire the unit to cure and adjust it. This process takes about 36 hours. The technicians will give on-site training at that time. The operation of the new cremation incinerator can begin after the training has ended.

The operating procedures for the new incinerator will remain the same as for the old incinerator:

- The incinerator's primary chamber (volume 27 ft³; 0.8 MM Btu/hr burner) is batch loaded with individual or multiple deceased small animals/pets. The total weight/load limit is 85 pounds.
- The burn timer is adjusted to the total weight of the batch load.
- The start button is pushed and the secondary burner (0.8 MM Btu/hr) located in the secondary chamber (volume 5.7 ft³) of the incinerator is fired.
- Once the secondary chamber's temperature reaches the minimum gas temperature set point of 1,600°F, the primary burner is fired to a maximum temperature of 1,600°F.
- The secondary chamber shall have a minimum operating temperature of 1,400°F.
- Exhaust gases will be vented to the atmosphere through a 1' 1" diameter and an 18' 2" tall stack.
- After burn down and cool down of the incinerator, the remains will be removed and returned to the pet owner.

A minimum cool down time of 30 minutes is expected, but it could exceed two hours or even be left over night.

Afterburner System (Therm Tec Model S-27)

From Attachment L of the permit application:

The afterburner (control chamber) consists of a vertical combustion chamber setting on top of the primary chamber. The afterburner has two distinct auxiliary combustion air zones, each with six air injectors installed for tangential air injection, creating cyclonic air flow to assure complete mixing of the exhaust gas with the combustion air. The auxiliary combustion air volume is controlled by a modulating air damper based on afterburner temperature.

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Monongalia County, WV

Table 1: Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
S1	S1	animal cremation incinerator	2005	85 lb/hr	None
S2	S2	animal cremation incinerator	2015	85 lb/hr	None

SITE INSPECTION

The writer did not inspect the High Meadow facility for this modification application (R13-2640B). However, the facility is routinely inspected by DAQ Enforcement. On October 21, 2013 (the most recent inspection), Brian Tephabock, DAQ Enforcement, inspected the facility, found no violations, and give the facility the inspection code of 30. It was noted in the inspection report that there was no visual emissions/opacity, that the facility's records were in very good order, and that the equipment was well maintained.

Directions to the facility:

- From Charleston, WV take I-79 North to Exit 146. Turn left onto Goshen Road. Travel 0.2 miles and turn left onto County Route 73 (Smithtown Road). Travel 1.6 miles and turn left on Halleck Road. Travel 0.3 miles and turn right onto Broom Sage Road. Travel 200 feet and turn right onto High Meadow Pass. Turn right onto the second driveway.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

High Meadow's emissions calculations for the new cremation incinerator are given in Attachment N-1 to the permit application. The writer reviewed the estimated emissions and found them to be correct.

The new cremation incinerator's **hourly emissions** are the same as the hourly emissions for existing cremation incinerator.

Annual emissions under R13-2640A for the existing incinerator were based on operating 2,080 hr/yr (8 hr/day; 5 day/wk; 52 wk/yr).

Annual emissions under R13-2640B for the new incinerator will be based on operating 3,640 hr/yr (10 hr/day; 7 day/wk; 52 wk/yr).

Annual emissions under R13-2640B for the existing incinerator will be increased 1,560 hr/yr [(3,640 -2,0800 hr/yr)] to match the new incinerator's operating hours.

The change in hourly and annual emissions resulting from going from R13-2640A to R13-2640B is given in Table 2.

Table 2: Emissions Summary Table in Going from R13-2640A to R13-2640B.								
Pollutant	EMISSIONS							
	BEFORE		NEW		AFTER			
					INCREASE in Potential-to-emit		Total	
	Existing Incinerator		Incinerator		H1 (lb/hr)	2*A3 - A2 (ton/yr)	Two (2) Incinerators	
	H1 (lb/hr)	A2 (ton/yr) ⁽¹⁾	H1 (lb/hr)	A3 (ton/yr) ⁽²⁾			2*H1 (lb/hr)	2*A3 (ton/yr)
CO	0.007	0.01	0.007	0.01	0.007	0.02	0.014	0.02
NOx	0.13	0.13	0.13	0.23	0.13	0.33	0.26	0.46
PM10	0.07	0.07	0.07	0.13	0.07	0.19	0.14	0.26
SO2	0.11	0.11	0.11	0.19	0.11	0.28	0.22	0.38
VOC	0.13	0.13	0.13	0.23	0.13	0.33	0.26	0.46
(1)	Based on operating: 2,080 hr/yr (8 hr/day; 5 day/wk; 52 wk/yr).							
(2)	Based on operating: 3,640 hr/yr (10 hr/day; 7 day/wk; 52 wk/yr).							

Emission rates were calculated using emission factors found in AP-42, Section 2.1, "Refuse Combustion" (10/96), Table 2.1-12 and FIRE 6.22. Results from tests performed by Horizon Engineering, an independent test laboratory, on a Therm-Tec, Inc. Model S-27 incinerator were used to estimate the maximum CO and PM10 emission rates (and are lower than the CO and PM10 emission rates estimated by FIRE 6.22).

REGULATORY APPLICABILITY

High Meadow's Monongalia County, WV facility is a non-major stationary source, not subject to Title V (45SCR30) because it is not subject to a standard or other requirement under §112 of the Clean Air Act.

Applicable State Rules:

45CSR4: *To Prevent and Control the Discharge of Air Pollutants Into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors*

The facility is subject to the requirements of 45CSR4 and shall not allow the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

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45CSR6: To Prevent and Control Air Pollution From Combustion of Refuse

The allowable particulate emission rate calculated in accordance with 45CSR6, Section 4.1, is 0.23 lb/hr. The permitted emission rate for particulate matter is 0.07 lb/hr, which indicates the facility will meet the requirements of Section 4.1. 45CSR6, Section 4.3, states that visible emissions from any incinerator shall not exceed twenty (20%) percent opacity or greater.

45CSR13: Permits For Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures For Evaluation

The facility is subject to rule 45CSR6. Section 6.1 reads as follows, "No person shall construct, modify or relocate any incinerator without first obtaining a permit in accordance with the provisions of W. Va. Code §§22-5-1 et seq., 45CSR13, 45CSR14, and 45CSR19, as applicable."

High Meadow submitted a permit application (R13-2650B) for the second cremation incinerator on February 2, 2015.

45CSR22: Air Quality Management Fee Program

The facility is subject to the requirements of 45CSR22 and shall pay all fees according to the application fee schedule and Certificate to Operate fee schedule. The proper application fee for a modification permit application (\$1,000) was received on February 9, 2015

The proposed construction of the second animal cremation incinerator is not subject to PSD, NSPS, NESHAPS or the following state and federal rules:

45CSR2: To Prevent and Control Particulate Air Pollution From Combustion of Fuel in Indirect Heat Exchangers

The proposed construction does not employ any indirect heat exchangers. Indirect heat exchanger means a device that combusts any fuel to produce steam or heats water or any other heat transfer medium. Therefore, this rule is not applicable to the proposed construction.

45CSR16 Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60 40 CFR 60

40 CFR 60, Subpart E: Standards of Performance for Incinerators

Although the new incinerator was constructed after August 17, 1971, it is not subject to Subpart E - "Standards of Performance for Incinerators," because it does not have

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a charging rate of more than 50 tons per day, which would define it as an affected facility. The maximum charging rate of the incinerator is 85 pounds per hour, which equals 1.02 tons per day. The maximum charging rate for both incinerators is 170 lb/hr or 2.04 ton/day (based on 24 hr/day of operation).

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the pollutants being emitted from this facility are normal products of combustion in small quantities and as such, should not pose any adverse health effects to the general public.

AIR QUALITY IMPACT ANALYSIS

High Meadow's Monongalia County, WV facility is considered to be a non-major source. No impact analysis study was conducted for the source.

MONITORING & RECORD KEEPING REQUIREMENTS

For the purpose of determining compliance with the limits established in permit R13-2640B, the permittee will be required to keep and maintain records of the following variables for both cremation incinerators:

- Type and amount (in pounds) of dead animal carcasses being charged into the incinerators.
- Hours of operation.
- Secondary combustion chamber temperatures during operation.

The facility should be inspected periodically by personnel from the Division of Air Quality (DAQ).

RECOMMENDATION TO DIRECTOR

High Meadow's request for a modification permit for the construction/installation of a second identical cremation incinerator at their Monongalia County, WV facility meets the requirements of all applicable rules and therefore should be granted said modification permit (R13-2640B).



John Legg
Permit Writer

March 20, 2015

March 30, 2015

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Fact Sheet R13-2640B
High Meadow Pet Crematory
Monongalia County, WV

WordPerfect Document Compare Summary

Original document: Q:\AIR_QUALITY\J_LEGG\High Meadow Pet
Crematory\R13-2640B\061-00145_PERM_13-2640A.wpd

Revised document: Q:\AIR_QUALITY\J_LEGG\High Meadow Pet
Crematory\R13-2640B\061-00145_PERM_13-2640B.wpd

Deletions are shown with the following attributes and color:

~~Strikeout~~, **Blue** RGB(0,0,255).

Deleted text is shown as full text.

Insertions are shown with the following attributes and color:

Double Underline, Redline, **Red** RGB(255,0,0).

The document was marked with 21 Deletions, 39 Insertions, 0 Moves.

West Virginia Department of Environmental Protection

*Earl Ray Tomblin
Governor*

Division of Air Quality

*Randy C. Huffman
Cabinet Secretary*

Permit to Update Modify



R13-2640AB

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

High Meadow Pet Crematory LLC
HMonongaligh Meadow Farma County
061-00145

John A William F. Benedict Durham
Director

Issued: ~~December 18, 2013~~ Draft

Facility Location: ~~Morgantown~~, Monongalia County, West Virginia

Mailing Address: 158 High Meadow Pass, Fairmont, WV 26554

Facility Description: Animal Crematory Incinerator

NAICS Code: 812220 - Cemeteries and Crematories

SIC Codes: 7261 - Funeral Service and Crematories

UTM Coordinates: 583.919 km 895 km Easting • 4374.72245 km Northing • Zone 17

Lat/Long: 39.518252 Latitude; -80.023992 Longitude

Permit Type: Class I Administrative Update

~~Description:~~ ~~References to 45CSR5 and 40 CFR60, Subpart Y pertaining to coal handling which are not relevant to this facility were removed~~ Modification

Description: Installation of a second Therm-Tec Model S27T Animal Cremation Incinerator. The old incinerator's operating hours will be increased to 3,640 hr/yr (10 hr/day; 7 day/wk; 52 wk/yr) from 2,080 hr/yr (8 hr/day; 5 day/wk; 52 wk/yr) to match the new incinerator's operating hours. The old incinerator's annual processing weight of animal carcasses will be increased to 154.7 ton/yr from 88.4 ton/yr to match the new incinerator's processing weight.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is not subject to 45CSR30.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
S1	S1	animal cremation incinerator	2005	85 lb/hr	None
<u>S2</u>	<u>S2</u>	<u>animal cremation incinerator</u>	<u>2015</u>	<u>85 lb/hr</u>	<u>None</u>

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM_{2.5}	Particulate Matter less than 2.5µm in diameter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations	Ppb	Pounds per Batch
CO	Carbon Monoxide	pph	Pounds per Hour
C.S.R. or CSR	Codes of State Rules	ppm	Parts per Million
DAQ	Division of Air Quality	Ppmv or ppmv	Parts per million by volume
DEP	Department of Environmental Protection	PSD	Prevention of Significant Deterioration
dscm	Dry Standard Cubic Meter	psi	Pounds per Square Inch
FOIA	Freedom of Information Act	SIC	Standard Industrial Classification
HAP	Hazardous Air Pollutant	SIP	State Implementation Plan
HON	Hazardous Organic NESHAP	SO₂	Sulfur Dioxide
HP	Horsepower	TAP	Toxic Air Pollutant
lbs/hr	Pounds per Hour	TPY	Tons per Year
LDAR	Leak Detection and Repair	TRS	Total Reduced Sulfur
M	Thousand	TSP	Total Suspended Particulate
MACT	Maximum Achievable Control Technology	USEPA	United States Environmental Protection Agency
MDHI	Maximum Design Heat Input	UTM	Universal Transverse Mercator
MM	Million	VEE	Visual Emissions Evaluation
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VOC	Volatile Organic Compounds
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOL	Volatile Organic Liquids
NA	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2640, R13-2640A and R13-2640~~A~~^B, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; [45CSR§§13-5.11 and 13-10.3]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification to this permit as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§14-7 or 45CSR§19-14]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency.

An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40CFR§61.145(b) and 45CSR§15]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.

[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.

[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted

to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.
[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. State-Enforceable only.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W. Va. Code § 22-5-10 and 45CSR31.

- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

If to the USEPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Operating Fee.** In accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for a Certificate to Operate (CTO), from the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the application for a Certificate to Operate (CTO).
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. The permittee may construct ~~two (2)~~ two (2) Therm-Tec, Inc. Model S27T animal cremation incinerators with a maximum rated capacity of 85 pounds per hour each to incinerate animal remains only.
- 4.1.2. Annual operation of each of the incinerators shall not exceed ~~23,080~~ 640 hours per year or ~~88~~ 154.47 TPY of animal remains. Compliance with all annual limits shall be determined using a twelve month rolling total. A twelve month rolling total shall be mean, for example, the sum of the amount of hours of operation during the previous twelve (12) consecutive calendar months.
- 4.1.3. The incinerators shall only use propane as the firing fuel during operation.
- 4.1.4. The maximum allowable emission rates from each of the incinerators shall be not exceed the following hourly and annual limits:

Pollutant	Maximum Emission Rate	
	lbs/hr	tons/yr
Carbon Monoxide (CO)	0.01	0.01
Nitrogen Oxides (NO _x)	0.13	0.13 2 ³
Particulate Matter < 10 microns (PM ₁₀)	0.07	0.07 1 ¹³
Sulfur Dioxide (SO ₂)	0.11	0.11 1 ⁹
Volatile Organic Compounds (VOCs)	0.13	0.13 2 ³

- 4.1.5 The temperature of the secondary chamber of each of the incinerator~~s~~ shall be maintained as a minimum of 1400 °F during operation.
- 4.1.6 Emission of Visible Particulate Matter – No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater. [45CSR§6-4.3]
- 4.1.7 The provisions of subsection 4.3 shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60) minute period for stoking operations. [45CSR§6-4.4]
- 4.1.8 No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air. [45CSR§6-4.5]
- 4.1.9 Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors. [45CSR§6-4.6]
- 4.1.10 Incineration of Residues and Hazardous Materials – Persons responsible for the incineration of hazardous materials such as insecticides, empty insecticides containers, toxic materials, certain chemical residues, explosives, used bandages and other medical wastes, pathological wastes, human and animal remains and other like materials shall give the utmost care and consideration to the potential harmful effects of the emissions resulting from such activities. Evaluation of these facilities as to adequacy, efficiency and emission potential will be made on an individual basis by the Director, working in conjunction with other appropriate governmental agencies. [45CSR§6-4.7]
- 4.1.11 **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2.1. For the purpose of determining compliance with the opacity limits of 45CSR6, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.
- a. The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.
 - b. Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.
 - c. If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.
- 4.2.2. The permittee shall perform weekly inspections of the refractory, burners, controllers, and thermocouple and repair or replace as needed and maintain.

4.3. Testing Requirements

- 4.3.1 In the event that the Director requests emissions tests to be conducted to determine compliance with the emissions of particulate matter, sulfur dioxide, nitrogen oxide, carbon monoxide, and total hydrocarbon emissions, the Methods listed below from Appendix A of 40 CFR 60 shall be utilized for purposes of conducting performance tests, unless the Director approves an alternate or equivalent method. Submission of test protocol and notification of testing is described below under Section 3.3.1.

<u>Pollutant</u>	<u>Method</u>
Particulate Matter	5
Sulfur Dioxide	6A, or 6C
Nitrogen Oxide	7A or 7E
Carbon Monoxide	10B
Total Hydrocarbons	25A

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. **Record of Operation.** For the purpose of determining compliance with the limits established in Section 4.1, the permittee shall record the following information for each cycle of operation of the incinerator~~s~~: type and amount (in pounds) of material being charged into the incinerator~~s~~, the hours of operation, and the temperature of the secondary combustion chamber~~s~~ during cycle of operation.

- 4.4.5. **Record of Opacity Monitoring.** The permittee shall maintain records of all monitoring data required by Section 4.2.1 documenting the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix D. Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
- 4.4.6. **Record of Weekly Inspections.** For the purpose of determining compliance with the weekly inspections established in Section 4.2.2, the permittee shall maintain accurate dated records of all inspections, preventative maintenance procedures, and maintenance/repair procedures performed.

4.5. Reporting Requirements

- 4.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

APPENDIX A. Record of Operation.

Animal Cremation Incinerator: S1 or S2 (circle one)

Day of Month	Hours of Operation (hr)	Amount of Animal Waste Charged (lbs)	Average Amount Charged per Hour (lb/hr)	Minimum Temperature of Secondary Chamber (°F)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
Total for Month	hours	lbs	lbs/hour	-----
Twelve Month Rolling Total	hours	lbs	lbs/hour	-----

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹

(please use blue ink)

Responsible Official or Authorized Representative

Date

Name and Title

(please print or type)

Name

Title

Telephone No. _____

Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.