

Example changes resulting from SB 265 for: Incinerator with applicable SIP rules; no BAT for particulate emissions due to SIP limit; no BAT for all other criteria pollutants since uncontrolled PTE less than 10 TPY for each; incinerators (except for hazardous waste incinerators) are not considered a “process” emissions unit, therefore OAC Chapter 3745-18 does not apply.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measure</u>
Shenandoah natural gas-fired pathological incinerator for animal cremation, rated at 40 pounds per hour, equipped with an afterburner	OAC rule 3745-31-05(A)(3)	See A.2.a thru A.2.f below: Less stringent than the requireme OAC rule 3745-31-05(A)(3) stat A.2.f below:
	OAC rule 3745-17-07(A)	Visible particulate emissions fr any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-09(B)	Same as the requirement of OAC 3745-31-05(A)(3) stated in A.2.a below:
	OAC rule 3745-17-09(C)	Particulate emissions shall not exceed 0.20 pound per 100 pou of liquid, semisolid or solid ref and salvageable material charg the incinerator.
		Incinerators, including all associated equipment and grou

OAC rule 3745-31-05(A)(3)(b)

shall be designed, operated and maintained so as to prevent the emissions of objectionable odor

See sections A.2.b and A.2.c be

2. Additional Terms and Conditions

- ~~2.a 0.2 pound per 100 pounds of material charged, 0.08 pound per hour, and 0.35 ton per year of particulate matter emissions.~~
- ~~2.b 0.06 pound per hour and 0.26 ton per year of organic compounds emissions.~~
- ~~2.c 0.06 pound per hour and 0.26 ton per year of oxides of nitrogen emissions.~~
- ~~2.d 0.20 pound per hour and 0.88 ton per year of carbon monoxide emissions.~~
- ~~2.e 0.05 pound per hour and 0.22 ton per year of sulfur dioxide emissions.~~
- ~~2.f Visible emissions shall not exceed 5 percent opacity except for six (6) minutes in any sixty minute (60) period during which the opacity shall not exceed ten (10) percent.~~

- 2.a There are no applicable SO₂ emission limitations under OAC Chapter 3745-18 for this emissions unit.
- 2.b The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the calculated annual emission rate for particulate emissions is less than 10 tons per year taking into account the federally enforceable rule limit of 0.20 pound of particulates per 100 pounds of liquid, semisolid or solid refuse and salvageable material charged to the incinerator under OAC rule 3745-17-09(B).
- 2.c The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled OC, NO_x, CO and SO₂ emissions from this air contaminant source since the potentials to emit for OC, NO_x, CO and SO₂ are less than 10 tons per year.

B. Operational Restrictions

1. The permittee shall operate and maintain the incinerator in such a way to meet all applicable engineering standards and practices and to meet the recommendations of the manufacturer in order to minimize the air contaminant emission releases.
2. The permittee shall not charge this emissions unit with an "infectious waste agent" as defined in OAC rule 3745-75-01(B)(419).

3. During a cremation burn, the temperature of the secondary combustion chamber shall be maintained at a minimum of 1,400 degrees Fahrenheit.
4. The permittee shall ignite the afterburner for at least 15 minutes prior to ignition of refuse and continue its use during the entire burn cycle or for any longer time period as specified by the manufacture to ensure proper operation of the emissions unit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder for the secondary combustion chamber operating temperatures. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and applicable operating manual(s).

D. Reporting Requirements

1. The permittee shall submit temperature deviation (excursion) reports that identify all periods of time during which the secondary combustion chamber exhaust gas temperatures did not comply with the temperature limitation specified above, including:
 - a. the date of the excursion;
 - b. the time interval over which the excursion occurred;
 - c. the temperature values during the excursion;
 - d. the cause(s) for the excursion; and
 - e. the corrective action which has been or will be taken to prevent similar excursions in the future.

This report shall be sent to the Ohio EPA, Northeast District Office within forty-five (45) days of the excursion.

E. Testing Requirements

1. Compliance with the emission limitations specified in section A.1 and A.2 of these Terms and Conditions shall be determined in accordance with the following methods:
 1. a. Emission Limitation:

~~0.20 pound of Particulate Matter per 100 pounds of material charged and~~

~~0.08 pound per hour of particulate matter emissions.~~

Particulate emissions shall not exceed 0.20 pound per 100 pounds of liquid, semisolid or solid refuse and salvageable material charged to the incinerator.

Applicable Compliance Method:

If required, compliance with ~~these~~ **this** emission limitations shall be based on stack testing per OAC rule 3745-17-03(B)(8), (USEPA Methods 1-5, 40 CFR 60, Appendix A).

~~1 b. Emission Limitation:~~

~~0.35 ton of Particulate Matter per year.~~

~~Applicable Compliance Method:~~

~~Compliance with this emission limit shall be demonstrated by utilizing the following equation:~~

~~$EPMYR = 0.032 \text{ (lbs./hour)} \times 1/2000 \text{ (tons/lbs.)} \times 8760 \text{ (hours/year)}$~~

~~where:~~

~~0.032 pound of particulate matter per hour based on a stack test report submitted with the application for a identical unit in Pinkneyville, Illinois, (4/18/90); and~~

~~EPMYR = emission of Particulate Matter, in tons per year.~~

~~1 c. Emission Limitation:~~

~~0.06 pound of Organic Compounds per hour, and 0.26 ton per year;~~

~~Applicable Compliance Method:~~

~~Compliance with these emission limits shall be demonstrated by utilizing the following equations:~~

~~$EOCHR = 3.0 \text{ (lbs. OC/ton)} \times 40 \text{ (lbs./hour)} \times 1/2000 \text{ (tons/lbs.)}$~~

~~$EOCYR = EOCHR \times 1/2000 \text{ (tons/lbs.)} \times 8760 \text{ hours/year}$~~

~~where:~~

3.0 pounds of organic compounds per ton is the emission factor taken from AP-42, July 1993 version, "Section 2.1 Refuse Combustion", Table 2.1-12, and 40 lbs/hour is maximum capacity of incinerator; and
EOCHR = emission of Organic Compounds, in pounds per hour; and
EOCYR = emission of Organic Compounds, in tons per year.

1.d. Emission Limitation:

0.06 pound of Nitrogen Oxides per hour and 0.26 ton per year;

Applicable Compliance Method:

Compliance with these emission limits shall be demonstrated by utilizing the following equations:

$$ENOHR = 3.0 \text{ (lbs. NO}_x\text{/ton)} \times 40 \text{ (lbs./hour)} \times 1/2000 \text{ (tons/lbs.)}$$

$$ENOYR = ENOHR \times 1/2000 \text{ (tons/lbs.)} \times 8760 \text{ (hours/year)}$$

where:

3.0 pounds of nitrogen oxides per ton is the emission factor taken from AP-42, July 1993 version, "Section 2.1 Refuse Combustion", Table 2.1-12, and 40 lbs/hour is maximum capacity of incinerator; and
ENOHR = emission of Nitrogen Oxide compounds, in pounds per hour; and
ENOYR = emission of Nitrogen Oxide compounds, in tons per year.

1.e. Emission Limitation:

0.20 pound of Carbon Monoxide per hour and 0.88 ton per year;

Applicable Compliance Method:

Compliance with these emission limits shall be demonstrated by utilizing the following equations:

$$ECOHR = 10.0 \text{ (lbs. CO/ton)} \times 40 \text{ (lbs./hour)} \times 1/2000 \text{ (tons/lbs.)}$$

$$ECOYR = ECOHR \times 1/2000 \text{ (tons/lbs.)} \times 8760 \text{ (hours/year)}$$

where:

10.0 pounds of carbon monoxide per ton is the emission factor taken from AP-42, July 1993 version, "Section 2.1 Refuse Combustion", Table 2.1-12, and 40 lbs/hour is maximum capacity of incinerator; and

ECOHR = emissions of carbon monoxide, in pounds per hour; and

ECOYR = emissions of carbon monoxide, in tons per year;

1. f. Emission Limitation:

0.05 pound of Sulfur dioxide per hour and 0.22 ton per year;

Applicable Compliance Method:

Compliance with these emission limits shall be demonstrated by utilizing the following equations:

$ESOHR = 2.5 \text{ (lbs. SO}_2\text{/ton)} \times 40 \text{ (lbs./hour)} \times 1/2000 \text{ (tons/lbs.)}$

$ESOYR = ESOHR \times 1/2000 \text{ (tons/lbs.)} \times 8760 \text{ (hours/year)}$

where:

2.5 pounds of sulfur dioxide per ton is the emission factor taken from AP-42, July 1993 version, "Section 2.1 Refuse Combustion", Table 2.1-12, and 40 lbs/hour is maximum capacity of incinerator; and

ESOHR = emissions of sulfur dioxide, in pounds per hour; and

ESOYR = emissions of carbon monoxide, in tons per year;

1. g. b Emission Limitation:

Visible particulate emissions shall not exceed five percent opacity, as a six-minute average, except for six minutes in any sixty minute period during which the opacity shall not exceed ten percent.

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance with this emission limitation shall be determined by USEPA Method 9 (40 CFR Part 60, Appendix A).

F. Miscellaneous Requirements

1. A copy of these terms and conditions shall be visibly posted near the incinerator.
2. **This incinerator shall be operated only by personnel adequately trained.**