

# **RULE 241 CREMATORIES**

Adopted 04-11-13

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**100 GENERAL**

**101 APPLICABILITY:** This rule applies to any crematory where human or animal remains are burned.

**200 DEFINITIONS**

**201 CREMATORY:** A furnace or other enclosed fire chamber where human or animal remains are burned and reduced to ashes.

**202 RESIDENCE TIME:** Residence time shall be calculated using the following equation:

$$\text{Residence Time} = \frac{V}{Q_C}$$

Where:  $V =$  means the volume, as expressed in cubic feet, from the point in the incinerator where the maximum temperature has been reached until the point where the temperature has dropped to 1600°F.

$Q_C =$  means the combustion gas flow through  $V$ , as expressed in actual cubic feet per second, which is measured according to ARB Test Method 2, after adjusting the measured flow rate to the maximum combustion chamber temperature ( $T_C$ ) by using  $T_C$  instead of  $T_{STD}$  in the ARB Test Method 2 calculation for  $Q_C$ .

The volumetric flow rate measured at the sampling points must be adjusted to chamber pressures.

Alternative methods may be used if conditions for determining the combustion gas flow rate by Method 2 are unacceptable. The determination shall be equivalent to, and within the guidelines of, ARB Test Method 2 and approved by the Air Pollution Control Officer and the U.S. Environmental Protection Agency (EPA).

$T_C =$  means the maximum temperature, in degrees Fahrenheit, that has been reached in the incinerator.

**300 STANDARDS**

**301 EMISSION LIMITATIONS**

301.1 Stack emission opacity greater than or equal to 10% opacity for a period or periods aggregating more than three (3) minutes in any one hour is prohibited. At no time shall opacity be greater than or equal to 20%.

**302 CREMATORY OPERATIONS: HUMAN REMAINS**

The following requirements apply to a crematory used for human remains.

302.1 Only multiple-chamber crematories may be used.

302.2 The afterburner (secondary chamber) shall be heated to a temperature of at least 1600 degrees Fahrenheit prior to firing the primary chamber. The afterburner

(secondary chamber) shall be maintained at this temperature until the burn is complete and the cool down cycle begins.

302.3 The primary chamber shall be charged and then heated to the operating temperature of at least 1400 degrees Fahrenheit. The primary chamber shall be maintained at this temperature until the burn is complete and the cool down cycle begins.

302.4 The furnace design shall provide for a residence time in the secondary chamber for combustion gas of at least one (1) second.

### **303 CREMATORY OPERATIONS: ANIMAL REMAINS**

The following requirements apply to a crematory used exclusively for animal remains.

303.1 Only multiple-chamber crematories may be used.

303.2 The afterburner (secondary chamber) shall be heated to a temperature of at least 1600 degrees Fahrenheit prior to firing the primary chamber. The afterburner (secondary chamber) shall be maintained at this temperature until the burn is complete and the cool down cycle begins.

303.3 The primary chamber shall be charged and then heated to the operating temperature of at least 1400 degrees Fahrenheit. The primary chamber shall be maintained at this temperature until the burn is complete and the cool down cycle begins.

303.4 The furnace design shall provide for a residence time in the secondary chamber for combustion gas of at least one-third (0.33) second.

### **400 ADMINISTRATIVE REQUIREMENTS**

**401 MAINTENANCE OF EQUIPMENT:** A person operating equipment subject to this rule shall provide, properly install, and maintain in calibration and in good working order, operational devices to measure temperatures in the primary and secondary chamber.

### **500 MONITORING AND RECORDS**

**501 MONITORING:** A data recording system shall be installed which provides for each day of operation continuous recording of primary and secondary chamber operating temperatures.

**502 RECORDKEEPING:** Maintenance records shall be kept for the temperature monitoring equipment.

**503 DURATION OF RECORDS:** All records maintained pursuant to this rule shall be retained for at least two years from date of entry, with the exception that sources subject to the requirements of Rule 507, FEDERAL OPERATING PERMIT PROGRAM, shall retain records at least five years. Records shall be made available for inspection by the Air Pollution Control Officer upon request.

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