

New York Air Pollution Control Requirements Crematories and Incinerators 6 NYCRR Subpart 219-4

November 2006

All human and animal crematory operations in New York State are required to comply with the requirements of New York State Department of Environmental Conservation (NYSDEC) regulation called Subpart 219-4.

This factsheet summarizes the requirements for crematory operations. Additional technical information is available by calling the Small Business Environmental Assistance Program (SBEAP) at the toll-free number listed below for free and confidential help.

Compliance Requirements

Subpart 219-4 requirements assure that the crematories (incinerators/retorts) achieve complete processing of the human or animal remains by maintaining efficient high temperature combustion while keeping emission of air pollutants within established limits. Efficient combustion will result in minimal particulate matter emissions observed as smoke or opacity. Opacity is a term used to describe the intensity of smoke and is actually a measure of the percentage of light that the smoke emissions block from passing through. Opacity measurements are typically made by a certified technician making visual readings of a smoke plume leaving an exhaust stack.

Emission Standard

Emissions of particulate matter into the outdoor atmosphere from any emission source located in a crematory facility must not exceed 0.08 grains per dry standard cubic foot of flue gas.

Furnace/Retort Design and Performance

Furnace design must provide for the residence time for combustion gas of at least one second at no less than 1,800°F. For a multi-chamber incinerator, these conditions must still be met after the combustion gases leave the primary combustion chamber. The primary combustion chamber temperature in such furnaces must be maintained at no less than 1,400°F.

Mechanically fed incinerators must incorporate an air lock system to prevent opening the incinerator to the room environment. The volume of the loading system must be designed so as to prevent overcharging to assure complete combustion of the material.

Operating Requirements

- Crematory emissions to the outdoor atmosphere must not exceed an opacity of ten percent or greater, based on a six minute average of opacity measurements.
- The NYSDEC Regional Air Quality Engineer must be notified in writing at least ten days prior to the commencement of operation of a new incinerator (retort).

Prohibited Materials

- **Infectious waste** (other than pathological waste and animal bedding) in excess of five percent of the total hourly charging rate may not be burned in a crematory.

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- **Radioactive and Hazardous wastes** may not be burned in an incinerator (retort) unless the crematory is exempt from, or has been issued a permit pursuant to, the appropriate NYSDEC Regulations.

Process monitoring

Crematory incinerators (retorts) must be equipped with **instrumentation for continuously monitoring and recording** the following emission and operating parameters:

- primary combustion chamber exit temperature;
- secondary (or last) combustion chamber exit temperature.

Stack Emissions Testing

Each incinerator to be installed at a crematory facility must demonstrate compliance with the standards in this Subpart by either (1) onsite testing, or (2) submittal of a test report for an identical incinerator/retort tested in New York and approved by the NYSDEC.

If an onsite test is to be performed, a test protocol, including the configuration of breeching, stack and test port locations and test methods must be submitted for approval by the NYSDEC Regional Air Quality Engineer at least 30 days prior to stack testing.

Annual Inspection and Reporting

Each owner or operator of a permitted crematory facility must annually inspect that facility and submit a report to the commissioner, certifying that the condition and operation of the incinerator, including the calibration of all instrumentation, meet manufacturer's specifications.

Facility Permit/Registration Requirements

Part 201, **Permits and Certificates**, requires all crematory operations to obtain a State Facility Operating Permit or Minor Facility Registration Certificate. The SBEAP can assist with all phases of the permit/registration process including the preparation of emission calculations and the appropriate permit or registration application.

Operator Training and Certification

- Crematory facilities cannot be operated unless under the onsite direction of a person possessing an appropriate incinerator operator certification issued by the NYSDEC.
- No person may operate a facility subject to this Subpart unless certified in writing by the holder of an incinerator operator certification, relative to:
 - (1) proper operation and maintenance of equipment at that facility; and
 - (2) knowledge of environmental permit conditions and the impact of plant operation on emissions for that facility.

The information in this fact sheet is intended for general reference only; it is not a full and complete statement of the technical or legal requirements associated with the regulation.

Helping New York's Small Businesses understand and comply with environmental regulations.

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