

Instructions for Attachment E203A
CREMATORY UNITS
Supplemental Application Form
(Instructions for Completing DEEP-NSR-APP-203A)

All applications for a permit to construct and operate a stationary source shall include the information listed in Regulations of Connecticut State Agencies (RCSA) section 22a-174-3a(c). This supplemental application form shall be completed for any new crematory.

Complete a separate form for *each* crematory unit. The proposed crematory unit must be for the cremation of human remains or small animal remains. Livestock, as defined in CGS §8-2n, are not permitted into the unit.

Complete each item as appropriate. If a specific item does not apply to your situation indicate N/A (not applicable). If additional space is needed to answer a question stated in the application, attach separate sheet(s) as necessary, clearly identifying the applicant name, form name and Part number, and unit number.

Note: The data provided in these forms will be used to define the operating limits in your permit.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152 (between 8:30 AM and 4:30 PM, Monday through Friday).

Applicant Name: Provide the applicant name as previously indicated on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200).

Unit Number: Provide the unit number of the subject unit as previously assigned on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200). Please use a consistent reference number for each unit throughout the application package.

Equipment specific information requested in this application is specified by the manufacturer and can often be found on the equipment nameplate. If unknown, this information can be obtained from the manufacturer.

Definitions

The definitions below shall apply to the use of terms in this application, any term not defined here shall have the same meaning as found in RCSA §22a-174-1 or the Clean Air Act and its implementing regulations.

Charge Loaded -The actual weight of the charge

being introduced at the beginning of the cremation cycle determined in pounds, including the deceased, the cremation container and all materials inside the cremation container.

Maximum Charge Rate or Maximum Processing Rate-The maximum amount of material cremated per hour as specified in the manufacturer's documentation of the specific cremator.

Maximum Single Load Charge-The maximum weight of the deceased, the cremation container and all materials inside the cremation container that can be loaded at one time into the cremation retort, as specified in the manufacturer's documentation for the specific cremator.

Medical or Infectious Waste-Any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that are listed in paragraphs (a) through (g) of this definition. The definition of medical or infectious waste does not include hazardous waste identified or listed

under the regulations in 40 CFR Part 261; household waste, as defined in 40 CFR §261.4(b)(1); ash from incineration of medical or infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR §261.4(a)(1).

Cultures and stocks of infectious agents and associated biologicals, including:

- a. Cultures from medical laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
- b. Human tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.
- c. Human blood and blood products including:
 - i. Liquid waste human blood;
 - ii. Products of blood;
 - iii. Items saturated and/or dripping with human blood; or
 - iv. Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also included in this category.
- d. Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture

dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

- e. Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.
- f. Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.
- g. Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

Small Animal - means animals typically kept as pets and not considered “livestock” as defined in CGS §8-2n.

Part I: Crematory Unit Information

Manufacturer and Model Number - Provide the manufacturer and model number of the crematory. This information can be obtained from the manufacturer.

Construction Date - Provide the actual or anticipated construction date of the equipment.

Begin actual construction means in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operating this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

Has the CT Department of Health Been Contacted? – Indicate if the CT Department of Public Health (DPH) has been contacted. The DPH has regulations that are applicable to crematory units which may impact your application.

Type of Crematory Unit – Indicate the type of crematory. The proposed crematory unit must be for the cremation of human remains or small animal remains. Livestock, as defined in CGS §8-2n, are not permitted into the unit.

Number of Crematory Compartments – Indicate if the crematory is a single or multiple compartment unit. If multiple, provide the number of compartments. If the type of compartments is not listed, specify the type and provide the requested information.

Maximum Charge Rate or Maximum Processing Rate – Provide the crematory's maximum charge rate or maximum processing rate in pounds per hour.

Maximum Single Load Charge – Provide the crematory's maximum capacity in pounds.

Effective Grate Area - Provide the effective grate area of the incinerator in square feet.

Part II: Burner System Information

A. Fuel Information

Fuel Type – List the fuel type to be used in the crematory's burners. (e.g., natural gas).

Higher Heating Value - Provide the higher heating value for each fuel in BTU.

Total Maximum Hourly Heat Capacity - Provide the maximum hourly firing rate for all burners combined in MMBtu per hour.

Total Maximum Hourly Firing Rate - Provide the maximum hourly firing rate for all burners combined in gallons or cubic feet per hour.

Maximum Fuel Usage Per Consecutive 12 Month Period - Provide the maximum anticipated fuel usage per consecutive 12 month

period in gallons or cubic feet.

B. Primary Combustion Chamber Information

Burner Manufacturer and Model Number - Provide the manufacturer and model number of the burner.

Minimum Operating Temperature – Provide the minimum operating temperature of the primary combustion chamber in °F for design control efficiency. This is a function of the design and the heat content of the gas.

Number of Burners – Provide the number of burners in the primary combustion chamber.

Burner Maximum Design Fuel Firing Rate – Provide the maximum fuel firing rate for each burner in gallons or cubic feet per hour.

Burner Maximum Design Heat Capacity – Provide the maximum heat capacity for each burner in MMBtu.

C. Secondary Combustion Chamber Information

Burner Manufacturer and Model Number - Provide the manufacturer and model number of the burner.

Combustion Gas Residence or Retention Time – Provide the minimum combustion chamber design residence/retention time in the secondary chamber in seconds. This is the exhaust flow rate divided by the chamber volume.

Minimum Operating Temperature – Provide the minimum operating temperature of the secondary combustion chamber in °F for design control efficiency. This is a function of the design and the heat content of the gas.

Number of Burners – Provide the number of burners in the secondary combustion chamber.

Burner Maximum Design Fuel Firing Rate – Provide the maximum fuel firing rate for each burner in gallons or cubic feet per hour.

Burner Maximum Design Heat Capacity – Provide the maximum heat capacity for each burner in MMBtu.

Part III: Monitoring Devices Information

Indicate if the crematory unit system includes each of the following:

Non-Resettable Fuel Meter to Continuously Monitor Fuel Consumption

Scale to Monitor the Weight of Each Charge Loaded into the Crematory Unit

Thermocouple to Continuously Monitor the Temperature in the Secondary Combustion Chamber

Electronic Exhaust Scanner System which Initiates Audible and Visible Alarms if the Opacity of the Exhaust Gas Downstream of the Secondary Combustion Chamber Reaches 5% as Measured by the Scanner System

Part IV: Material Information

A. Amount of Material Cremation

Maximum Quantity of Material Cremated – Provide the maximum anticipated quantity of material to be cremated in tons per consecutive 12 month period, tons per day and pounds per hour.

B. Type of Material Cremated

Percent By Weight - For each type of material to be cremated, estimate its percentage of the total amount to be cremated on a weight basis.

Heat Content - For each type of material indicated to be cremated, provide the heat content per unit of material and specify the measurement units, e.g., BTU per pound.

Other – If the type of material to be cremated is not listed, specify the type and provide the requested information.

Note: The following materials are not allowed to be cremated: medical or infectious waste, fiberglass caskets or coffins, metal caskets or coffins, or lacquer/varnish/shellac covered caskets or coffins.

Part V: Attachments

This section offers a checklist of all the attachments necessary to complete this application. All listed Attachments are **REQUIRED**.

Check the appropriate box by each attachment being submitted as verification that all applicable attachments have been submitted. Please label all attachments as referenced in the permit application form and these instructions and be sure to include the name of the applicant as indicated on the application form.

Attachment E203A-A: Process Information and Flow Diagram, REQUIRED

Submit a process flow diagram indicating all related equipment, air pollution control equipment and stacks, as applicable. Identify all materials entering and leaving each such device indicating quantities and parameters relevant to the proper operation of the device. Indicate all monitoring devices and controls.

Attachment E203A-B: Manufacturer Information, REQUIRED

Submit a copy of the manufacture information for the specific make and model of the cremation unit which is the subject of this application including manufacturer's specifications and written recommendations for the operation, inspection, calibration, cleaning and maintenance of the crematory.

Additional Information

Please see the CT DEEP [New Source Review Permit Application Guidance for Crematory Units](#) for additional information, including a list of required forms and emissions factor guidance.