MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

EQUIPMENT-SPECIFIC GENERAL PTI PRIMARY FORM QUESTIONS MODIFICATION

GENERAL PERMIT TO INSTALL FOR CREMATORY UNITS

These questions will be part of the MiEnviro Portable application forms if the general PTI is approved.

Section 1 – Applicant Details

Applicant Name: _____

Applicant Mailing Address: _____

County:_____

Authorized Employee (Name, Title) :_____

Authorized Employee Phone Number: _____

Contact Person (if different than Authorized Employee - for questions regarding this application): _____

Is any of the proposed equipment included in an outstanding consent order or consent judgement?

☐ Yes ☐ No

If yes, the applicant is not eligible for this General Permit

Section 2 – Eligibility Questions

The questions in this section are a single select yes or no question.

Are any of the new proposed crematory unit(s) already installed at the facility?

☐ Yes ☐ No

If yes, the applicant is not eligible for this General Permit

Are you proposing to install more than three crematory units under a single General PTI at the site?

☐ Yes ☐ No

If yes, the applicant is not eligible for this General Permit

For each proposed crematory unit, will it be propane- or natural gas-fired?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will it burn any waste other than pathological waste as defined under 40 CFR 60.51c?

☐ Yes ☐ No

As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding.

If yes, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the burn rate, as specified by the crematory manufacturer, be less than or equal to 300 pounds per hour?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the maximum load (charge), as specified by the crematory manufacturer, be less than or equal to 1,000 pounds?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the secondary combustion chamber have an afterburner?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the retention time of the secondary combustion chamber be greater than or equal to 1.0 second?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the crematory unit have a minimum operating temperature of 1600°F in the secondary combustion chamber, prior to loading a charge?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the operating temperature of the secondary combustion chamber be monitored and recorded on a continuous basis?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each animal pathological waste cremation unit, will there be a scale on-site, or at a location that has been approved by the AQD District Supervisor, to verify the charge weight?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each human pathological waste cremation unit, will there be a scale on-site to verify the charge weight?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the exhaust stack height be at least 3 feet above the building height?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the exhaust stack be discharged unobstructed vertically upward from a stack?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

For each proposed crematory unit, will the designed exhaust flow rate be a minimum of 785 standard cubic feet per minute (scfm)?

☐ Yes ☐ No

If no, the applicant is not eligible for this General Permit

Section 3 – Application Equipment Inventory Section

The following section cannot be amended. These questions are requirements of the system and cannot be changed. The questions range from drop-downs, single select, and short text answers. Each proposed crematory unit must be entered into the Application Equipment Inventory. A maximum of three units can be installed under this General PTI.

RELEASE POINT TILE

Name: Create a release point name. There cannot be any spaces in the release point names. Examples: SVCREMATORY1, SVCREMAOTRY2, and SVCREMATORY3.

Type: From the drop-down list, select Vertical.

Description: Enter a brief description of the release point.

Status: From the drop-down list, select Pre-Operating.

Stack Height: Enter the height, in feet above ground.

Stack Shape: Choose circular or rectangular.

Stack Diameter: Enter the diameter of the stack in feet for circular or the length and width of the stack in feet for rectangular. The system will calculate and display the number of inches after the value in feet is entered.

Exit Gas Temp: Enter the temperature of the exhaust gas in degrees Fahrenheit.

Exit Gas Flow Rate: Enter the actual gas flow rate and select the unit for the value entered or enter the velocity. If the flow rate is entered, the velocity will automatically populate.

Exit Gas Velocity: Enter the actual gas velocity and select the unit for the value entered or enter the gas flow rate. If the velocity is entered, the gas flow rate will automatically populate. If you go back and edit any of the above stack information, the system will not recalculate. Exit the screen and start over if you need the system to calculate this field after making edits to the height, diameter, temperature or flow rate.

Location Tab

Latitude (decimal degrees): Enter the release point latitude in decimal degrees.

Longitude (decimal degrees): Enter the release point longitude in decimal degrees.

CONTROL DEVICE TILE

Name: Enter the name of the control device. Example: CDAFTERBURNER1, CDAFTERBURNER2, CDAFTERBURNER3.

Description: Enter a brief description of the control device.

Status: From the drop-down list, select Pre-Operating.

Control Measure: Begin typing afterburner and select afterburner.

CONTROL PATH TILE

Name: The Control Device Pathway name. It must start with CP (or CDP, but CP is preferred).

Description: Enter a brief description of the pathway.

Control Path Segments:

Sequence # - the order of the control devices the exhaust gas goes through between generation and release.

Control Device or Control Path (sub path) – select Device, use the drop-down list to select the correct control device.

EMISSION UNITS TILE

Name: Enter the Emission Unit (EU) ID that is in the permit, EUCREMATORY1, EUCREMATORY2, EUCREMATORY3

Type: Begin to enter the correct code:

- E069 - Cremation-Animal (Pathological Incinerator) or
- E070 - Cremation-Human (Pathological Incinerator)

Description: Enter a brief description that allows the AQD to easily identify the equipment.

Status: From the drop-down list, select Pre-Operating.

Design Capacity: Enter the Total maximum fuel heat input for both the primary and secondary combustion chamber in million British Thermal Units per hour (MMBtu/hr)

Additional Information Tab

Electric Generation: From the drop-down list select no.

Combustion source: From the drop-down list select yes.

UNIT PROCESSES TILE

Emission Unit Identifier: Select an emission unit from the drop-down list.

SCC section: Source Classification Code (SCC), type in:

- 3-15-021-03 - Industrial Processes-Photo Equip/Health Care/Labs/Air Condit/SwimPools-Health Care - Crematoriums-Cremation - Human
- 3-15-021-04 - Industrial Processes-Photo Equip/Health Care/Labs/Air Condit/SwimPools-Health Care - Crematoriums-Cremation - Animal

Description: Enter a description of the process

Status: From the drop-down list, select Pre-Operating.

Release Point Apportionment Tab

Release Point: From the drop-down list select the release point(s) that are used for the activity for the emission unit. There must be a release point for every unit process. If the correct release point isn't in the drop-down list, go to the Release Points tile and add the correct release point.

Control Path: From the drop-down list, select the control path associated with the selected release point if it's controlled.

Apportionment: This should sum to 100% within this tab.

FLEXIBLE GROUPS TILE

Name: Enter the Flexible Group (FG) name listed below, dependent if the application is for animal, human, or a combination.

- Human Units: FGHUMAN
- Animal Units: FGANIMAL

Description: Enter the corresponding description from the following list.

- Human Units: A maximum of three cremation units (pathological incinerator). Each unit must meet all of the following criteria: a secondary combustion chamber with afterburner, uses propane or natural gas as fuel, a maximum charge rate of 1,000 pounds, a maximum burn rate of 300 pounds/hour, and incineration of human waste.
- Animal Units: A maximum of three cremation units (pathological incinerator). Each unit must meet all of the following criteria: a secondary combustion chamber with afterburner, uses propane or natural gas as fuel, a maximum charge rate of 1,000 pounds, a maximum burn rate of 300 pounds/hour, and incineration of animal “pet” remains waste.

Section 4 – Crematory (Pathological Incinerator) Equipment Information

A maximum of three units can be installed under this General PTI and this section must be filled out for each unit.

Emission Unit ID: Select within the drop-down the appropriate Emission Unit name as entered into the site's Application Equipment Inventory form.

Stack/Vent ID: Select in the drop-down the appropriate Stack/Vent ID name as entered into the site's Application Equipment Inventory form.

Manufacturer: _____

Model: _____

Operating Information

Type of waste to be processed in this crematory unit: (Select one)

☐ Human ☐ Animal

Type of Fuel: (Select one)

☐ Propane ☐ Natural gas

Maximum Weight per Charge: _____ pounds

Burn Rate: _____ pounds per hour

Total maximum fuel heat input for both the primary and secondary combustion chamber in million British Thermal Units per hour (MMBtu/hr): _____

Secondary Combustion Chamber Volume (cubic feet): _____

Section 5 – Additional Information

What type of additional Information are you submitting with this application? At a minimum, you must provide manufacturer's information that verifies the heat input for the primary and secondary combustion chamber in million British thermal units per hour (MMBtu/hr) and secondary combustion chamber volume in cubic feet.

☐ Attachment (May include drawings, charts, calculations, assumptions, etc.)

☐ Technical -Specialized information regarding the installation, construction, or use of the process or stack/vent

☐ General - Any supplemental information that is not technical information

Additional information narrative - A brief description of the information. May include calculations, design parameters, etc. (short answer)