

EMISSIONS ACTIVITY CATEGORY FORM INCINERATOR (WASTE COMBUSTION) OPERATION

This form is to be completed for each incinerator (waste combustion). State/Federal regulations which may apply to incinerator (waste combustion) operations are listed in the instructions. Note that there may be other regulations which apply to this emissions unit which are not included in this list.

1. Reason this form is being submitted (Check one)

New Permit Renewal or Modification of Air Permit Number(s) (e.g. N001)_____

2. Maximum Operating Schedule: _____ hours per day; _____ days per year

If the schedule is less than 24 hours/day or 365 days/year, what limits the schedule to less than maximum? See instructions for examples. _____

3. Waste Type: Municipal/Residential/Industrial
 Hospital, Medical, or Infectious
 Sewage Sludge
 Human or Animal Remains (Crematory)
 Hazardous
 Salvageable Material
 Other (describe) _____

4. Type of incinerator:

<input type="checkbox"/> Mass Burn/Modular Excess Air <input type="checkbox"/> Mass Burn Rotary Waterwall <input type="checkbox"/> Refuse-Derived Fuel-Fired <input type="checkbox"/> Fluidized Bed <input type="checkbox"/> Electric Infrared <input type="checkbox"/> Industrial/Commercial Multiple Chamber <input type="checkbox"/> Industrial/Commercial Single Chamber <input type="checkbox"/> Other (describe) _____	<input type="checkbox"/> Mass Burn Waterwall <input type="checkbox"/> Mass Burn Refractory Wall <input type="checkbox"/> Mass Burn Modular Starved Air <input type="checkbox"/> Multiple Hearth <input type="checkbox"/> Burn-off Oven
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5. Rated capacity: _____ lbs/hr
 _____ tons/day

6. Method of charging: Chute fed Mechanical loader
 Flue fed Manual
 Other, describe: _____

7. Type of charging: Continuous Batch Intermittent

8. Weigh Scale: Yes No

INSTRUCTIONS FOR COMPLETION OF THE EMISSIONS ACTIVITY CATEGORY FORM FOR INCINERATOR (WASTE COMBUSTION) OPERATION

GENERAL INSTRUCTIONS: Provide complete responses to all applicable questions. If an item does not apply to the emissions unit, write in "Not Applicable" or "NA." If the answer is not known, write in "Not Known" or "NK." If you need assistance in understanding a question after reading the instructions below, contact your Ohio EPA District Office or Local Air Agency for assistance. Submittal of an incomplete application will delay application review and processing. In addition, the application may be returned as incomplete if all applicable questions are not answered appropriately.

APPLICABLE REGULATIONS:

The following State and Federal Regulations may be applicable to incinerator (waste combustion) operations. Note that there may be other regulations which apply to this emissions unit which are not included in this list.

Federal: 40 CFR 60, (NSPS) Subparts A, Cb, Ce, Ea, Eb, Ec, FFF, AAAA, BBBB, CCCC, DDDD, EEEE, FFFF

40 CFR 62, Subpart HHH

40 CFR 63, (MACT) Subparts A, EEE

State: Ohio Administrative Code (OAC) 3745-31-02 (Permit to Install)
3745-35-02 (Permit to Operate)
3745-31-05 (Best Available Technology)
3745-17-07(A) (Visible emissions limits)
3745-17-09(B) (Particulate emissions limits)
3745-18-06(E) (SO₂ emissions limits)
3745-75-02 (Infectious waste incinerator limits)

State regulations may also be viewed and downloaded from the Ohio EPA website at <http://www.epa.state.oh.us/dapc/regs/regs.html>. Federal regulations may be viewed and downloaded at <http://www.epa.gov/docs/epacfr40/chapt-I.info/subch-C.htm>.

CALCULATING EMISSIONS:

Manufacturers of some types of emissions units and most types of control equipment develop emissions estimates or have stack test data which you can request. Stack testing of the emissions may be done. Emissions unit sampling test data may be either for this emissions unit or a similar one located at the facility or elsewhere. You may develop your own emission factors by mass balance or other knowledge of your process, if you can quantify inputs and outputs accurately. You may be able to do this on a small scale or over a short period of time, if it is not practical during regular production. If you have control equipment, you may be able to quantify the amount of pollutants collected over a known time period or production amount. Any emission factor calculation should include a reference to the origin of the emission factor or control efficiency. For example:

2.1 lbs PM/ton of material charged controlled with Electrostatic Precipitator (ESP), AP-42, Fifth Edition, Volume I, *Stationary Point and Area Sources*, Table 2.1-2 (10/96); or

SPECIFIC INSTRUCTIONS:

1. Indicate whether this is an application for a new permit or an application for permit renewal. If applying for a permit renewal, provide the 4-character OEPA emissions unit identification number, e.g., N001.
2. Provide the maximum number of hours per day and days per year the incinerator (waste combustion) is expected to operate. The following are examples of why the maximum number of hours per day may be less than 24 or the maximum number of days per year may be less than 365 (this list is not all-inclusive):
 - The facility can only operate during daylight hours.
 - The process can only operate within a certain range of ambient temperatures.
 - The process is limited by another operation (i.e., a bottleneck).
3. Identify the type of waste to be incinerated.

“Municipal/Residential/Industrial” wastes include all nonhazardous waste generated in households, institutions, and industry, as well as by agricultural activities.

“Medical or Infectious” waste materials include all materials generated in the diagnosis, treatment, or immunization of human beings or animals, as well as all materials that are a threat to human health due to biological agents.

“Hazardous wastes” include wastes that are determined to exhibit characteristics of ignitability, corrosivity, reactivity or toxicity as identified in Ohio Administrative Code (OAC) rules 3745-51-20 to 24, or wastes that are listed in OAC rules 3745-31-30 to 35.

“Salvageable material” includes any material to be reduced in volume, or otherwise changed in chemical or physical properties, in order to facilitate its reuse, e.g., conveyor racks.

4. Identify the type of incinerator. If the type of incinerator is not a listed choice, then please check “other” and describe the type of incinerator. A “burn-off oven” is an oven employed to recover salvageable material.
5. Identify the rated capacity of the incinerator. It is possible that the rated capacity varies on type of waste. For this reason, please identify the maximum rated capacity.
6. Identify the method of waste charging.

Chute fed, waste charged to the incinerator by means of a chute, other than the flue.

Flue fed, waste charged to the incinerator through the flue duct.

Mechanical loader, waste charged automatically by a ram-type feeder or similar device.

7. Identify the type of waste charging employed.

Continuous, waste is added regularly to the incinerator during the burning operation.

Batch, waste is charged only once and allowed to burn down completely before any more is added.

Intermittent, waste is added a few times during the burning operations, normally in large amounts.

8. Indicate if a weigh scale is employed to measure the weight of waste to be charged into the incinerator.
9. Specify the burner input capacity in British Thermal Units per hour (BTU/hr) for the primary and secondary burners. In some incinerators the secondary burner is called an afterburner.
10. Indicate the type of fuel used to aid the combustion.
11. Indicate if the primary combustion zone is equipped with a temperature control. If so, specify the lower limit of the control in degrees Fahrenheit (°F).
12. Indicate if the secondary (or afterburner) combustion zone is equipped with a temperature control. If so, specify the lower limit of the control in degrees Fahrenheit (°F).
13. Indicate the type of secondary burner ignition.

Manual, ignition is activated manually and usually has a timer.

Automatic, ignition is activated by a charging door switch.

14. Indicate the primary combustion zone retention time, in seconds. Retention time shall be calculated using the volume of the chamber divided by the actual volumetric flow rate at maximum temperature and burning rate.
15. Indicate the secondary combustion zone retention time, in seconds. Retention time shall be calculated using the volume of the chamber divided by the actual volumetric flow rate at maximum temperature and burning rate.
16. Complete the requested information concerning any continuous temperature recorder that is used in the primary and/or secondary chamber. A continuous temperature recorder is a recorder that indicates the operating temperatures during all times that the incinerator is operating.
17. Indicate if there is a lockout system consisting of an electrical device that will not allow the charging of waste into the combustion chamber during the burn cycle.
18. Indicate if there is an airlock system to prevent the opening of the incinerator into the room environment during burning.
19. Complete the requested information concerning any radioactivity monitor and alarm that is used to detect the radioactivity level of all wastes prior to charging to the incinerator.
20. Complete the requested information concerning any bypass dampers used in the exhaust gas discharge equipment. A bypass damper is a damper system used to divert exhaust gases from the incinerator during any emergency or malfunction until corrective measures can be taken.