

## EMISSIONS ACTIVITY CATEGORY FORM FUEL BURNING OPERATION

*This form is to be completed for each fuel burning operation. State/Federal regulations which may apply to fuel burning 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.

B001) \_\_\_\_\_

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. Input Capacity (million Btu/hr):

Rated <i>(Indicate units if other than mmBtu/hr)</i>	Maximum <i>(Indicate units if other than mmBtu/hr)</i>	Normal <i>(Indicate units if other than mmBtu/hr)</i>

4. Output Capacity:

Rated <i>(lb steam/hr)</i>	Maximum <i>(lb steam/hr)</i>	Normal <i>(lb steam/hr)</i>

Not applicable - operation does not produce steam.

5. Percent of Operating Time Used for:

Process: \_\_\_\_\_ %  
 Space Heat: \_\_\_\_\_ %

6. Type of Draft (check one):

- Natural     Induced     Forced

7. Type of combustion monitoring (check one):

- Fuel/Air Ratio     Oxygen     None

Other (describe) \_\_\_\_\_

8. Type of Fuel Fired (complete all that apply):

Fuel*	Fired as...	Min. Heat Content (Btu/unit)	Max. % Ash	Max. % Sulfur	Max. Annual Fuel Use	Average Hourly Fuel Use	Maximum Hourly Fuel Use
Coal	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				tons	lbs	lbs
No. 2 Fuel Oil	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				gal	gal	gal
No. 6 Fuel Oil	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				gal	gal	gal
Other** Oil	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				gal	gal	gal
Natural Gas	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				ft <sup>3</sup>	ft <sup>3</sup>	ft <sup>3</sup>
Wood	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				tons	lbs	lbs
LPG	<input type="checkbox"/> Primary <input type="checkbox"/> Backup				gal	gal	gal
Other**	<input type="checkbox"/> Primary <input type="checkbox"/> Backup						
Other**	<input type="checkbox"/> Primary <input type="checkbox"/> Backup						

\* Please identify all combinations of fuels that are co-fired: \_\_\_\_\_

\*\* Identify other fuel(s): \_\_\_\_\_

**Coal-Fired Units**

9. Type of Coal Firing (check one):

- Pulverized-Wet Bottom   
  Hand-Fired   
  Chain Grate   
  Traveling Grate  
 Pulverized-Dry Bottom   
  Cyclones   
  Spreader Stoker   
  Fluidized Bed  
 Underfeed Stoker   
  Other (describe) \_\_\_\_\_

10. Flyash Reinjection:

- Yes     No

11. Overfire Air:

- Yes     No

**Oil-Fired Units**

12. Oil Preheater:

- Yes - Indicate Temperature: \_\_\_\_\_ deg. F

No

# INSTRUCTIONS FOR COMPLETION OF THE EMISSIONS ACTIVITY CATEGORY FORM FOR FUEL BURNING OPERATION

## **GENERAL INSTRUCTIONS:**

OAC rule 3745-17-01 (B)(5) defines "fuel-burning equipment" as ". . . any furnace or boiler, and any appurtenances thereto, such as stacks, ducting and similar apparatus, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer, where the products of combustion do not come into contact with process materials." Note that this definition does not include operations such as incinerators, stationary internal combustion engines, and gas-fired combustion turbines which burn fuel. These types of sources are covered by other Emissions Activity Category (EAC) forms.

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 fuel burning operations. Note that there may be other regulations which apply to this emissions unit which are not included in this list. Due to the general nature of this form, specific regulations are not listed.

Federal: 40 CFR 60, (NSPS) Subpart Da, Db, Dc (Steam Generating Units)

State: OAC rule 3745-31-02 (Permit to Install)  
OAC rule 3745-35-02 (Permit to Operate)  
OAC rule 3745-17 (Particulate Matter Standards)  
OAC rule 3745-18 (Sulfur Dioxide Regulations)  
OAC rule 3745-21 (Carbon Monoxide, Photochemically Reactive Materials, Hydrocarbons, and related Materials Standards)  
OAC rule 3745-23 (Nitrogen Oxide Standards)

If you would like a copy of these regulations, contact your Ohio EPA District Office or Local Air Agency. 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.

The emissions from fuel burning equipment may be estimated using the information from Chapter 1 of AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume I, available from the following website: <http://www.epa.gov/ttn/chief/ap42/index.html>.

### **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.
2. Provide the maximum number of hours per day and days per year the fuel burning operation 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. Specify the input capacity in millions of Btu per hour. "Rated" refers to the continuous rating of the heat exchanger. "Maximum" refers to the maximum peak rating of the heat exchanger. "Normal" refers to the normal operating capacity of the heat exchanger. If the heat exchanger has separate ratings for each fuel used, specify the input and/or the output capacities for each fuel used on a separate attachment.
4. Specify the output capacity (for steam producing operations only) in pounds of steam per hour (lbs. steam/hr).
5. Provide the annualized percent of operation for process and space heat (100% total).
8. Indicate the type(s) of fuels fired, whether concurrently or individually fired. Specify the heat content, ash content, sulfur content, the estimated maximum quantity of fuel to be used per year, and the quantity to be used per hour (average amount and maximum amount) for each fuel used. Use units provided on the form. A fuel analysis may be obtained from the supplier to aid in identifying fuel parameters. Identify below the table all co-fired fuel combinations and fuel types not specifically named.

### **Coal-Fired Units**

**Items 9 through 11 apply only to coal-fired units.**

10. Indicate whether or not there is fly ash reinjection from a fly ash collector.

### **Oil-Fired Units**

**Item 12 applies only to oil-fired units.**

12. Indicate if an oil preheater is used and, if so, specify the temperature of the heated oil, in degrees Fahrenheit.