



EMISSIONS ACTIVITY CATEGORY FORM
FUEL BURNING EQUIPMENT
 Division of Air Pollution Control

This form is to be completed for fuel burning equipment [as defined in Ohio Administrative Code (OAC) rule 3745-17-01] and any other fuel burning or combustion source [excluding incinerators (EAC form 3102), stationary internal combustion engines (EAC form 3862), and combustion turbines (EAC form 3862)]. State/federal regulations which may apply to fuel burning equipment are listed in the instructions.

FOR OHIO EPA USE	
FACILITY ID#	
EU ID#	
Permit#	

1. Type of fuel burning equipment:

- a. Boiler Process Heater Furnace Other (specify):
- b. Primary purpose to produce: Power Heat
- c. Heat Transfer: Direct (products of combustion come into contact with process materials, e.g., rotary drying kiln); or
 Indirect (a barrier prevents products of combustion from coming into contact with process materials, e.g., boiler or furnace)

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. Equipment Manufacturer: _____

Model No: _____
 Model Year: _____
 Serial Number: _____

Date equipment was ordered from the manufacturer: / /
 Date equipment was first installed at any location by any operator/facility: / /

4. Heat Input Capacity – Higher Heating Value – HHV (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>

5. Boilers: Steam Output Capacity:

Rated <i>(lb steam/hr)</i>	Maximum <i>(lb steam/hr)</i>	Normal <i>(lb steam/hr)</i>
Steam Pressure <i>(PSI)</i>	Steam Temperature <i>(Fahrenheit)</i>	Feedwater Temperature <i>(Fahrenheit)</i>

Is the boiler equipped with an economizer? Yes No

6. Percent of Operating Time Used for: Process Heat/Steam % Electric Power Generation % Space Heat: %

7. Type of Draft (check one): Natural Induced Forced

8. Type of combustion monitoring (check all that apply):

- Fuel/Air Ratio Oxygen None
 Other (describe):

9. Combustion Control Techniques: (check all that apply)

- None Low NOx Burner
 Flue Gas Recirculation Oxygen Trim
 Combustion Air Preheater Load reduction
 Return Other (Specify):

10. 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
Ultra low sulfur diesel fuel	<input type="checkbox"/> Primary <input type="checkbox"/> Backup		%	15 ppm# (0.0015)	gal	gal	gal
Other liquid fuel	<input type="checkbox"/> Primary <input type="checkbox"/> Backup		%	%	gal	gal	gal
Natural Gas	<input type="checkbox"/> Primary <input type="checkbox"/> Backup			%	ft ³	ft ³	ft ³
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		%	%			

specification for ultra low sulfur diesel fuel per 40 CFR 80.510(c), on an 'as received' basis

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

** Identify other fuel(s):

Coal and Wood-Fired Units

11. Type of Coal or wood Firing (check one):

- | | |
|--|--|
| <input type="checkbox"/> Pulverized-Wet Bottom | <input type="checkbox"/> Hand-Fired |
| <input type="checkbox"/> Chain Grate | <input type="checkbox"/> Traveling Grate |
| <input type="checkbox"/> Pulverized-Dry Bottom | <input type="checkbox"/> Cyclones |
| <input type="checkbox"/> Spreader Stoker | <input type="checkbox"/> Fluidized Bed |
| <input type="checkbox"/> Underfeed Stoker | |
| <input type="checkbox"/> Other (Describe): | |

12. Flyash Reinjection:

- Yes No

13. Overfire Air:

- Yes No

Oil-Fired Units

14. Oil Preheater:

- Yes - Indicate Temperature ____ deg. F
 No



INSTRUCTIONS FOR COMPLETION
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GENERAL INSTRUCTIONS:

Ohio Administrative Code (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." However, this Emissions Activity Category (EAC) form is intended for use with any fuel burning source, not just those meeting that definition. Note that this EAC form should not be used for incinerators (EAC form 3102), stationary internal combustion engines (EAC form 3862), and gas or liquid fuel-fired combustion turbines (EAC form 3862).

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." Please note that it is important to provide as much information as possible to determine state and federal rule applicability and compliance requirements. 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 the 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 equipment. 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)
 - 40 CFR 63, (NESHAPS) Subpart DDDDD (Major Source Boiler MACT)
 - 40 CFR 63, (NESHAPS) Subpart JJJJJ (Area Source Boiler MACT)
 - 40 CFR 63, (NESHAPS) Subpart UUUUU (Coal & Oil-Fired Utility MATS)
 - 40 CFR Part 97 Subparts AAAAA- DDDDD (Cross-State Air Pollution Rule -CSAPR)

- State:
- OAC rule 3745-31-02 (Permit to Install/Permit to Install and Operate)
 - OAC Chapter 3745-17 (Particulate Matter Standards)
 - OAC Chapter 3745-18 (Sulfur Dioxide Regulations)
 - OAC Chapter 3745-21 (Carbon Monoxide, Photochemically Reactive Materials, Hydrocarbons, and related Materials Standards)
 - OAC Chapter 3745-110 (Nitrogen Oxides RACT)
 - OAC Chapter 3745-14 (NOx Budget Trading Program)

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 <http://epa.ohio.gov/dapc/DAPCrules.aspx#112742676-effective-rules>.

Federal regulations may be viewed and downloaded at https://www.ecfr.gov/cgi-bin/text-idx?SID=ad3bdc0bb58c0c98d0b72a25f717b855&mc=true&tpl=/ecfrbrowse/Title40/40tab_02.tpl.

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 also be completed by the applicant. Emissions test data may either be for the specific unit or a similar unit located at the facility or elsewhere. You may develop your own emissions 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 emissions factor calculation should include a reference to the origin of the emissions factor or control efficiency.

U.S. EPA has developed emissions factors for many types of air pollution sources and published them in a document titled "Compilation of Air Pollutant Emission Factors, AP-42", available from the following website: <http://www.epa.gov/ttn/chief/ap42/index.html> See Sections 1.0 through 1.11.

Regardless of the reference material you use for emissions calculations please make sure the source of the information (e.g., AP-42, mass balance, stack test, etc.) is identified.

SPECIFIC INSTRUCTIONS:

1. Identify the type of fuel burning equipment and the type of heat transfer. (Indirect heat transfer means the products of combustion do not come into contact with process materials.)
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 name of the fuel burning equipment manufacturer, model number, model year, and serial number.

The date of order from the manufacturer means the date that your facility entered into a binding contract for on-site installation.

Specify the installation date of the fuel burning equipment. If the fuel burning equipment has been purchased used, the installation date listed should be the date it was first installed at any location by any owner or operator, if available.

4. Specify the input capacity in millions of Btu per hour. "Rated" refers to the continuous rating of the fuel burning source. "Maximum" refers to the maximum peak rating of the fuel burning source. "Normal" refers to the normal operating capacity of the fuel burning source. If the fuel burning source has separate ratings for each fuel used, specify the input and/or the output capacities for each fuel used on a separate attachment.
5. Specify the output capacity (for steam producing operations only) in pounds of steam per hour (lbs. steam/hr), pressure temperature and feedwater temperature.

6. Provide the annualized percent of operation for process heat/steam, space heat or power generation (must total 100%).
- 7-9. Identify the type draft used to provide combustion air, how the combustion process is monitored, and combustion control techniques employed to improve combustion. These techniques do not include add on control devices; only those techniques that measure/affect the combustion process.
10. 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 11 through 13 apply only to coal and wood-fired units.

11. Specify the type of coal or wood firing.
12. Indicate if fly ash reinjection from a fly ash collector is used.
13. Indicate if an Overfire system is used.

Oil-Fired Units

Item 14 applies only to oil-fired units.

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