



FUEL BURNING EQUIPMENT FOR INDIRECT HEATING PERMIT APPLICATION
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF AIR QUALITY
 SFN 8518 (05-11)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

GENERAL

| | | | |
|--------------------------------|-------|-----------------------|----------|
| Name of Firm or Organization | | Application Date | |
| Applicant's Name | Title | Phone | Email |
| Mailing Address (Street & No.) | City | State | Zip Code |
| Plant Location | | Source ID No. (AP100) | |

EQUIPMENT

| | | |
|---|------------------------------|--------------|
| Name of Manufacturer | Rated Capacity/Maximum Input | Model Number |
| Purpose <input type="checkbox"/> Space Heat % <input type="checkbox"/> Power Generation % <input type="checkbox"/> Process Heat % <input type="checkbox"/> Other (Specify % if multi-purpose) | | |

TYPE OF COMBUSTION UNIT AND FUEL FEEDING METHOD

| | | |
|---|--|---|
| <input type="checkbox"/> COAL (If other solid fuel, specify here) | <input type="checkbox"/> Fuel Oil | <input type="checkbox"/> Gas |
| <input type="checkbox"/> Pulverized <input type="checkbox"/> General <input type="checkbox"/> Dry Bottom <input type="checkbox"/> Wet Bottom with Fly Ash Reinjection <input type="checkbox"/> Wet Bottom without Fly Ash Reinjection | <input type="checkbox"/> Spreader Stoker with Fly Ash Reinjection <input type="checkbox"/> Spreader Stoker without Fly Ash Reinjection <input type="checkbox"/> Fluidized Bed <input type="checkbox"/> Cyclone <input type="checkbox"/> Hand-Fired <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Horizontally Fired <input type="checkbox"/> Tangentially Fired <input type="checkbox"/> Other - Specify: _____ |

NORMAL SCHEDULE OF OPERATION

| Hours Per Day | Days Per Week | Weeks Per Year | Hours Per Year Total | Peak Season (Specify Months) |
|---------------|---------------|----------------|----------------------|------------------------------|
| | | | | |

TYPE AND QUANTITY OF FUEL EXPECTED TO BE USED IN A CALENDAR YEAR

| Year 20_____ | PRIMARY FUELS | | | STANDBY FUELS | | |
|--------------------------------|---------------|---------|---------|---------------|---------|---------|
| | Type | | | Type | | |
| | Quantity/Year | | Units | Quantity/Year | | Units |
| | Maximum | Minimum | Average | Maximum | Minimum | Average |
| Percent Ash (Solid Fuels Only) | | | | | | |
| Percent Sulfur | | | | | | |
| Btu Per Unit (Specify): | | | | | | |

COMBUSTION AIR

| |
|---|
| <input type="checkbox"/> Natural Draft <input type="checkbox"/> Induced <input type="checkbox"/> Forced <input type="checkbox"/> Other - Specify: _____ |
|---|

STACK DATA

| | | |
|---|---|---------|
| Height Above Grade <div style="text-align: right;">(FT)</div> | Gas Temperature at Exit <div style="text-align: right;">(Average °F)</div> | |
| Inside Diameter at Exit <div style="text-align: right;">(FT)</div> | Gas Velocity at Exit <div style="text-align: right;">(Average FPS)</div> | |
| Stack Exit Gas Flow Rate | Average | Maximum |
| ACFM | | |
| CFM | | |
| Are sampling ports available? <input type="checkbox"/> No <input type="checkbox"/> Yes - Describe: | | |
| Describe Fuel Transport and Storage Methods | | |
| Is any air contaminant control device used in conjunction with this equipment: <input type="checkbox"/> No <input type="checkbox"/> Yes - Attach a completed gas cleaning equipment form (SFN 8532 AP-109) to this application | | |

NEARBY BUILDINGS

Attach drawings which show the plan and elevation views of any nearby buildings including the building that houses the fuel-fired equipment.

AIR CONTAMINANTS EMITTED

| Pollutant | Maximum Pounds Per Hour | Tons Per Year | Basis and Calculations for Quantities: |
|--------------------------------------|-------------------------|---------------|--|
| Particulate | | | |
| PM ₁₀ | | | |
| Sulfur Dioxide | | | |
| Nitrogen Oxide | | | |
| Carbon Monoxide | | | |
| Greenhouse Gases (CO ₂ e) | | | |
| Other - Specify | | | |

| | |
|------------------------|------|
| Signature of Applicant | Date |
|------------------------|------|

INSTRUCTIONS

All applicable portions of this form should be completed by printing or typing. When any item is not applicable the letters "NA" should be placed beside the item.

For the purpose of this application, fuel burning equipment is defined as:

"Fuel-burning equipment" shall mean any furnace, boiler apparatus, stack, or appurtenances thereto used in the process of burning fuel or other combustible material for the primary purpose of producing heat or power by indirect heat transfer.

Fuel-burning equipment, other than smokehouse generators, which meet all of the following criteria are not required to obtain a Permit to Construct or Permit to Operate:

1. The aggregate heat input per unit does not exceed ten million British thermal units per hour.
2. The total aggregate heat input from all equipment does not exceed ten million British thermal units per hour.
3. The emissions from all equipment do not exceed twenty-five tons (22.67 metric tons) per year of any air contaminant.

A separate permit application should be submitted for each separate piece of fuel-burning equipment that requires a permit.

RATED CAPACITY - MAXIMUM INPUT shall be the equipment manufacturer's or designer's guaranteed maximum input, whichever is greater.

A description of the delivery to, storage on, and method of transporting fuels within the plant should be specified for all solid and liquid fuels used by this indirect heat exchanger. (Example: coal delivered by open truck, stored in open piles, and carried to boiler by conveyor belt system.)

AIR CONTAMINANTS EMITTED - The maximum emission quantity per hour at the rated capacity using the primary fuel and the quantity per year emitted from actual use of the primary and secondary fuels combined should be entered here. The estimating basis for these quantities should be described. If emission factors are used, the source of these factors and the factors themselves should be identified.

NOTE: All information included in the application, including maximum estimated emission rates, will be used to make the above determinations. The information that is supplied in the application may be used to establish permit conditions. The emission rates provided should be based on the most credible data available. Although AP-42 provides general information, it should not be solely relied on to develop emission rates. Other sources of information that accurately represent the actual conditions that the emission unit will be operated under, such as actual test data or manufacturer's data, may be preferable.