# PERMIT APPLICATION FOR FUEL BURNING EQUIPMENT FOR INDIRECT HEATING

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
SFN 8518 (4-2026)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.
**- Must include SFN 8516 or SFN 52858**

## SECTION A - GENERAL INFORMATION

| Name of Firm or Organization | Facility Name |
|---|---|
| | |

## SECTION B – EQUIPMENT

| Source ID No. (From form SFN 8516) | Name of Manufacturer |
|---|---|
| Rated Capacity/Maximum Input | Model Number |

Purpose
Space Heat _____%
Process Heat _____%
Power Generation _____%
Other (Specify % if Multi-Purpose) _____%

## SECTION C – TYPE OF COMBUSTION UNIT AND FUEL FEEDING METHOD

Coal (If other solid fuel, specify here)

- ☐ Pulverized
- ☐ General
- ☐ Dry Bottom
- ☐ Wet Bottom with Fly Ash Reinjection
- ☐ Wet Bottom without Fly Ash Reinjection
- ☐ Other – Specify:
- ☐ Spreader Stoker with Fly Ash Reinjection
- ☐ Spreader Stoker without Fly Ash Reinjection
- ☐ Fluidized Bed
- ☐ Cyclone
- ☐ Hand-Fired

Fuel Oil

- ☐ Horizontally Fired
- ☐ Tangentially Fired
- ☐ Other – Specify:

Gas

- ☐ Horizontally Fired
- ☐ Tangentially Fired
- ☐ Other – Specify:

## SECTION D – NORMAL SCHEDULE OF OPERATION

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

## SECTION E – FUEL USE EXPECTED IN A CALENDAR YEAR

Year 20

| Primary Fuels | | Standby Fuels | |
|---|---|---|---|
| Type | | Type | |
| Quantity Per Year | Units of Measure | Quantity Per Year | Units of Measure |

| Percent Ash (Solid Fuels Only) | | | | | |
|---|---|---|---|---|---|
| Minimum | Maximum | Average | Minimum | Maximum | Average |
| | | | | | |

| Percent Sulfur | | | | | |
|---|---|---|---|---|---|
| Minimum | Maximum | Average | Minimum | Maximum | Average |
| | | | | | |

| Btu Per Unit of Measure (e.g. lb, gal, etc. - Specify) | | | | | |
|---|---|---|---|---|---|
| Minimum | Maximum | Average | Minimum | Maximum | Average |
| | | | | | |

| Describe Fuel Transport and Storage Methods: |
|---|

## SECTION F – COMBUSTION AIR

☐ Natural Draft ☐ Induced ☐ Forced ☐ Other – Specify:

## SECTION G – STACK DATA

| Inside Diameter (ft) | Height Above Grade (ft) |
|---|---|
| Gas Temperature at Exit (Avg. °F) | Gas Velocity at Exit (Avg. ft/sec) |
| Are Emission Control Devices in Place? If YES – Complete SFN 8532 ☐ Yes ☐ No | |
| Stack Exit Gas Flow Rate | |
| Average (ACFM) | Average (DSCFM) |
| Maximum (ACFM) | Maximum (DSCFM) |
| Are sampling ports available? ☐ No ☐ Yes – Describe: | |

## SECTION H – NEARBY BUILDINGS

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

## SECTION I – AIR CONTAMINANTS EMITTED

| Pollutant | Maximum Pounds Per Hour | Amount (Tons Per Year) | Basis of Estimate* |
|---|---|---|---|
| $NO_x$ | | | |
| CO | | | |
| PM | | | |
| $PM_{10}$ (filterable and condensable) | | | |
| $PM_{2.5}$ (filterable and condensable) | | | |
| $SO_2$ | | | |

| Pollutant | Maximum Pounds Per Hour | Amount (Tons Per Year) | Basis of Estimate* |
|---|---|---|---|
| VOC | | | |
| GHG (as $CO_2e$) | | | |
| Largest Single HAP | | | |
| Total HAPS | | | |

*If performance test results are available for the unit, submit a copy of test with this application. If manufacturer guarantees are used provide spec sheet.

# 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.

EQUIPMENT – *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.)

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 - 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.

SEND COMPLETED APPLICATION AND ALL ATTACHMENTS TO:

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324
(701) 328-5188