

PUGET SOUND CLEAN AIR AGENCY

Additional Notice of Construction Application Requirements for

BOILERS, PROCESS HEATERS, SPACE HEATERS

(If burning any liquid or solid wastes, use the permit form for incinerators)

General

1. Description of Equipment and its Purpose (Specify boiler, process heater or space heater and its intended use, i.e., electrical generation, process steam, process heat, cogeneration, hot air, mechanical power for pumps or compressors, resource recovery, or chemical recovery)
2. Identify which of the following categories the project fits into:
 - New Construction (*New construction also includes existing, unpermitted equipment or processes*)
 - Reconstruction (*Reconstruction means the replacement of components of an existing facility to such an extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility*)
 - Modification (*Modification means any physical change in, or change in the method of operation of, a source, except an increase in the Hours of Operation or production rates (not otherwise prohibited) or the use of an alternative fuel or raw material that the source is approved to use under an Order of Approval or operating permit, that increases the amount of any air contaminant emitted or that results in the emission of any air contaminant not previously emitted*)
 - Amendment to Existing Order of Approval Permit Conditions
3. Date of Equipment Manufacture (month/yr) (*Specify the date when the boiler or process heater was built by the manufacturer. **This information is not required for space heaters***)
4. Estimated Hours of Operation (hr/day, day/wk, wk/yr) (*the hours of operation of the new boiler or heater - not necessarily the entire facility*)
5. Estimated Installation Date (*Estimate the date when the boiler or heater will be put into service*)

Fuel Properties

- Type of Primary Fuel [*Specify natural gas, distillate (#2 fuel oil, diesel), residual (#6 fuel oil, bunker oil), waste oil (used oil), wood, coal, or other (describe). Note: If burning liquid or solid wastes, do not use this form, use the permit form for incinerators.*]
- Estimated Primary Fuel Usage (million cubic ft/yr, thousand gal/yr, or ton/yr) (*Estimate how many million cubic feet of gaseous fuel, thousands of gallons of liquid fuel, or tons of solid fuel will be burned annually. Alternatively, estimate how many billion Btu/yr*)

- Type of Secondary Fuel [*Specify natural gas, #2 fuel oil (diesel), #6 fuel oil (bunker), waste oil (used), wood, coal, or other (describe). Specify 'none' if not capable of firing a secondary fuel. If burning liquid or solid wastes, use the permit form for incinerators*]
- Estimated Secondary Fuel Usage (million cubic ft/yr, thousand gal/yr, or ton/yr) (*Estimate how many million cubic feet of gaseous fuel, thousands of gallons of liquid fuel, or tons of solid fuel will be burned annually. Alternatively, estimate how many billion Btu/yr*)

For Waste Gas, Waste Oil, Wood or Coal (If burning any liquid or solid wastes, use the permit form for incinerators)

If Gas is used, provide the following:

- Heat Value (Btu/million cubic feet)
- Chemical composition

If Oil is used, provide the following:

- Heat Value (Btu/gal)
- % ash and sulfur
- ppm metals (*Specify the ppm of lead, arsenic, cadmium, chromium*)
- ppm halogens
- ppm PCBs
- flash pt (°F)

If Wood is used, provide the following:

- Heat Value (Btu/lb wood) (*Specify if on wet or dry basis*)
- % bark
- % sander dust
- % reinjected cinders
- % moisture

If Coal is used, provide the following:

- Heat Value (Btu/lb coal)
- % ash
- % sulfur
- % reinjected cinders
- % moisture

Design Information (*Most design information is available from the manufacturer or vendor. Submittal of a brochure, scale drawing or process and instrumentation diagram will facilitate the review of the permit application*)

- Make & Model (*Specify the manufacturer of the boiler or heater and its model number - not its serial number*)
- Rated Heat Input (million Btu/hr) (*Specify the rated heat input - not the heat output. The rated heat input is equal to the maximum fuel firing rate times the upper heating value of the fuel*)
- Type of Boiler or Heater [*Specify water (fluid or air) tube or fire tube*]

- Type of Firing System [*For coal, specify suspension (dry bottom or wet bottom, wall-fired, tangential-fired or cyclone), grate (underfeed or overfeed stoker, Dutch oven, or hand stoked), or fluidized bed. For oil, specify the type of atomizer (mechanical, air, steam, or rotary). Not required for natural gas firing.*]
- Emission Warranties for NO_x and CO [*Supply the vendor's emission warranties for nitrogen oxides and carbon monoxide and information on excess air control and combustion monitoring (O₂, CO, °F)*]
- Nitrogen Oxide Emission Controls (*Specify if using low-NO_x burners, staged combustion, flue gas recirculation, reduced air preheat, low excess air, load reduction, burners out of service, ammonia injection, or selective catalytic reduction. If applicable, complete the permit form for selective catalytic reduction. If selective noncatalytic reduction is used, describe the system in detail.*)
- Particulate Emission Controls (*For boilers and heaters burning residual fuel oil or solid fuels, specify baghouse, Venturi scrubber, ESP or multiclone and complete the applicable permit forms*)
- Sulfur Dioxide Emission Controls (*For boilers and heaters burning coal or oil containing >2% sulfur by weight (waste oil), specify dry injection, spray dryer, or absorber and complete the applicable permit forms*)

Stack Information (*Required only for units without add-on control equipment. Otherwise, complete the permit applicable forms for baghouse, Venturi scrubber, ESP, multiclone, and selective catalytic reduction*)

- Stack Height (ft) (*Specify the height of the top of the stack above ground level - not above the building or above sea level*)
- Stack Diameter or if Rectangular, Cross-Sectional Dimensions (inches) (*Specify the internal dimensions - not the external dimensions*)
- Exhaust Flowrate (acfm) (*Specify the airflow in actual cubic feet per minute*)
- Exhaust Temperature (°F) (*Specify the temperature of the exhaust leaving the stack*)
- Distance to Nearest Property Line (ft) (*Specify the distance from the base of the stack to the nearest property line*)
- Height, Length and Width of Buildings (ft) (*Specify the approximate dimensions of any buildings that are >40% of the stack height and are located within 5 building heights from the stack*)

Operation and Maintenance

Describe Preventive Maintenance (*Specify the periodic maintenance recommended by the manufacturer and its frequency*)