

# PUGET SOUND CLEAN AIR AGENCY

## Additional Notice of Construction Application Requirements for

### FLARES

#### General

Equipment or Process Being Controlled [*Specify the source(s) of the contaminants to be controlled. If the source(s) are also new, complete the applicable permit forms*]

Identify which of the following categories the project fits into:

1. New Construction (*New construction also includes existing, unpermitted equipment or processes*)
2. 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*)
3. 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*)
4. Amendment to Existing Order of Approval Permit Conditions

Estimated Hours of Operation (hr/day, day/wk, wk/yr) [*Estimate the hours of operation for the new flare - not necessarily the entire facility*]

Estimated Installation Date [*Estimate the date when the new flare will be put into service*]

**Waste Gas Stream Characteristics** [*If the heat content of the gas stream is <300 Btu/scf (or <200 Btu/scf if nonassisted), supplementary fuel will be required*]

Flowrate (acfm) [*Specify the airflow in actual cubic feet per minute*]

Temperature (°F) [*Specify the temperature of the waste gas going to the flare in degrees Fahrenheit.*]

Pollutant Concentrations (lb/hr or ppmv of each pollutant) [*Specify the pollutant concentrations in the waste gas going to the flare in pounds per hour or parts per million by volume*]

Heat Content (Btu/scf) [*Specify the heat content of the waste gas going to the flare in British thermal units per standard cubic foot.*]

Oxygen (% by volume) [*Specify the oxygen content of the waste gas going to the flare in percent by volume*]

Molecular Weight (lb/lb-mol) [*Specify the volume weighted average molecular weight of the waste gas in pounds per pound-mole*]

**Design** [*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 and model of the flare - not the serial number*]

Flare Height (ft) [*Specify the height of the flare tip above ground - not above sea level*]

Type of Assist System [*Specify steam assisted, air assisted, or unassisted*]

Type of Ignition System [*Specify instantaneous spark, continuous spark or natural gas pilot. If pilot lights are used, specify the number of pilots*]

Type of Monitor to Determine the Presence of a Pilot Flame [*Specify 'none', thermocouple, infrared, or optical sensor*]

Cross-Sectional Area of Flare Tip (ft<sup>2</sup>) [*Specify the unobstructed area of the flare tip in square feet*]

Flared Gas Exit Velocity (ft/s) [*Specify the velocity at which the flared gas exits the flare in feet per second*]

For Steam Assisted Flares, the Steam Flowrate (lb/min) [*Specify the amount of any steam supplied to the flare in pounds per minute*]

For Flares with Supplementary Fuel, the Type of Fuel and its Flowrate (scfm) [*Specify the amount of any supplementary fuel supplied in standard cubic feet per minute*]

Method Used to Design/Size the Flare [*Specify the method used to select this design and size of flare. If design calculations were performed, they should be submitted. If the design and sizing was based on similar (successful) applications, list the owners and the city and state where they are located*]

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 inspection frequencies for visible emissions, steam supply, presence of a pilot, etc. Also specify the records to be kept (e.g., records of all inspections and repairs) and any spare parts to be kept on-site.*]