

PUGET SOUND CLEAN AIR AGENCY

Additional Notice of Construction Application Requirements for

CYCLONES

General

Equipment or Process Being Controlled [*Specify the source(s) of the particulate matter 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 cyclone - not necessarily the entire facility*]

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

Inlet Gas Stream Characteristics

Particulate Concentration (lb/hr, gr/acf, or gr/dscf) [*Specify the amount of particulate matter being vented to the cyclone in pounds per hour, grains per actual cubic foot, or grains per dry standard cubic foot. (One pound contains 7000 grains.)*]

Flowrate (acfm)

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*]

Type of Cyclone [*Specify single cyclone or multiclone (including the number of tubes).*]

Make & Model [*Specify the manufacturer and model of the cyclone - not the serial number.*]

Diameter of Cylindrical Section (inches) [*Specify the diameter of the body (cylindrical section) of the cyclone in inches*]

Length of Cylindrical Section (inches) [*Specify the length of the cylindrical section (above the conical section) of the cyclone in inches*]

Length of Conical Section (inches) [*Specify the length of the conical section of the cyclone in inches*]

Height of Inlet (inches) [*Specify the height (the vertical dimension) of the inlet duct in inches*]

Type of Entry [*Specify the type of inlet (tangential, helical, involute, vane axial).*]

Rotary Airlock (yes/no) [*Specify if the cyclone is equipped with a rotary airlock at the base of the conical section*]

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

Stack

Stack Height (ft) [*Specify the height of the top of the stack above ground level - not above the building or sea level*]

Stack Diameter or 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. This is usually determined from the fan performance 'curve' based upon the expected static pressure caused by the sum of the pressure losses from each component in the ductwork, including the cyclone*]

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.*]

Exhaust Direction [*Specify the direction that the exhaust is pointed (upward, horizontal, or downward).*]

Operation and Maintenance

Describe Preventive Maintenance [*For example, specify the inspection frequencies for visible emissions, fallout, holes and leaks in the cyclone and ductwork. Also specify the records to be kept (e.g., records of all inspections and repairs, the amount of dust collected per month), and specify any spare parts to be kept on-site*]

Methods Used to Prevent Emissions From Handling and Disposal of Dust [*Specify the equipment, procedures, and methods used to prevent emissions from the handling and disposal of dust. Is the receiving hopper completely enclosed? How is the dust hopper emptied without causing emissions?*]