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Puget Sound Clean Air Agency

PUGET SOUND CLEAN AIR AGENCY

Additional Notice of Construction Application Requirements for

DEMISTERS, MIST ELIMINATORS

[Includes any 'chevron' and 'mesh pad' demisters and any 'fiber-bed' mist eliminators not integral to the design of a Venturi scrubber, spray tower, packed bed scrubber or tray tower]

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 demister - not necessarily the entire facility]*

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

Inlet Gas Stream Characteristics

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 demister]*

Temperature (°F) *[Specify the temperature in degrees Fahrenheit]*

Pollutant Concentrations (lb/hr) *[Specify the pollutant concentrations going into the demister in pounds per hour]*

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 demister - not the serial number.]*

Collection Efficiency (%) *[Specify the control efficiency of the demister, as stated by the manufacturer]*

Expected Pressure Drop (inches of water) *[Specify the expected pressure drop across the demister element in inches of water]*

Method Used to Design/Size the Demister or Mist Eliminator *[Specify the method used to select this design and size of demister. 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]*

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 (ºF) *[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

Method Used to Clean the *Demister [Specify the method used to prevent build-up of solids on the demister element.]*

Describe Preventive Maintenance Specify the method used to prevent build-up of solids on the demister element.]