

3.0 EMISSION REDUCTION TECHNOLOGY DESCRIPTION

The two technologies evaluated further are the fabric filter (baghouse) and the electrostatic precipitator. This section describes these two control technologies that can be retrofitted to Colstrip to comply with the proposed MATS particulate emissions regulations. Both of fPM reduction technologies that are commercially available. However, neither of these technologies have previously been located at a utility in reheated flue gas downstream of a wet particulate scrubber.

3.1 PULSE-JET FABRIC FILTER

A pulse-jet fabric filter is an effective particulate matter control technology that uses a fabric material to filter out particulate matter from flue gas. The use of filters to remove unwanted items from a system has been around for many centuries. Within the last century, fabric filters have been popular options for particulate control in coal-fired power plants. The process is simple, which is one reason why they are so common. There are multiple types of fabric filters, based on the cleaning method. The method discussed in this section is based on pulse-jet cleaning.

3.1.1 Process Description

A process flow diagram of a typical pulse-jet fabric filter system is provided in Figure 3-1