

April 29, 2024

4.0 EMISSION GUARANTEES

The typical location for either a dry ESP or fabric filter is immediately downstream of an air heater. This location is typical primarily due to the flue gas temperature in this location. The temperature after the air heater is much cooler than upstream but is still above the flue gas acid dew point (and well above the moisture dew point) during normal operation. The cooler temperature reduces the volume of the flue gas and thus the size/cost of the ESP and fabric filter but the temperature remains high enough to prevent liquid from condensing therefore protecting the ESP or fabric filter from liquid that could impact performance or reliability.

The application at the Colstrip facility is different from this typical configuration. The Colstrip units have a wet particulate scrubber that cools and saturates the flue gas while removing both particulate and sulfur dioxide. The existing system also includes a reheat system that warms the exiting flue gas and is designed to result in a dry flue gas. The proposed location for the new ESP or fabric filter is downstream of this reheat system and not in the typical location immediately downstream of the air heater. This location was selected in the previous study by Burns & McDonnell as the proposed location is a more cost-effective option. Due to the atypical nature of this design Burns & McDonnell made it a point to discuss this with the vendors to gain confidence the vendors would guarantee performance in this configuration.

In discussion with Southern Environmental Inc, they indicated that using either technology they are confident that both of the proposed MATS rates (0.010 or 0.006 lb/MMBtu) could be achieved, maintained, and guaranteed at the Colstrip facility. Preliminary discussions (not final) with Industrial Accessories Company indicated they are hesitant to commit to providing guarantees at Colstrip due to the fabric filter unusual application (gas path location).

Southern Environmental Inc is a long-term supplier of both ESP and fabric filter systems and has remained active in the large-scale market for these systems. Burns & McDonnell emphasized the importance of accurately stating if guarantees would be offered keeping in mind similar make right terms the Utility industry has historically required. Southern Environmental Inc acknowledged the point Burns & McDonnell was making and indicated they had considered that when stating the rates could be guaranteed.

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