



COAL DUST WASHDOWN SYSTEM

CLIENT - E.ON

LOCATION - Bedford, KY

DESCRIPTION

Matrix PDM Engineering provided design engineering for the washdown of the coal feed system at E.ON's Trimble County 514 MW generating station near Bedford, Kentucky. The plant was being retrofitted to burn a mixture of Powder River Basin (PRB) coal, and since coal dust is explosive, the plant decided to install a washdown coal system to prevent the buildup of coal dust.

The washdown system was designed as a zoned manual valve actuated system that utilizes the "one turn" capability to clean structural surfaces and equipment thoroughly. The system was designed to include six different areas: tripper, as-fired sample house, F conveyor closure, crusher house, as-delivered sample house, and B to C transfer building. Each of the feed system buildings and equipment were in separate zones.

Each zone can be washed down manually, through a system of nozzles, and the entire area can be washed down using an array of headers and risers. The final system can wash 100 percent of all surfaces that collect coal, with a removal of a minimum of 95 percent of all dust and fine particles less than one-eighth of an inch.

PRINCIPAL FEATURES

- Design engineering
- Commissioning
- Calculations to size the feed pumps for the system
- Piping arrangement drawings using the existing plant arrangements as backgrounds

FOR MORE INFORMATION:

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