

# Wet Flue Gas Desulfurization System

Project Case History

Midwestern U.S. Utility

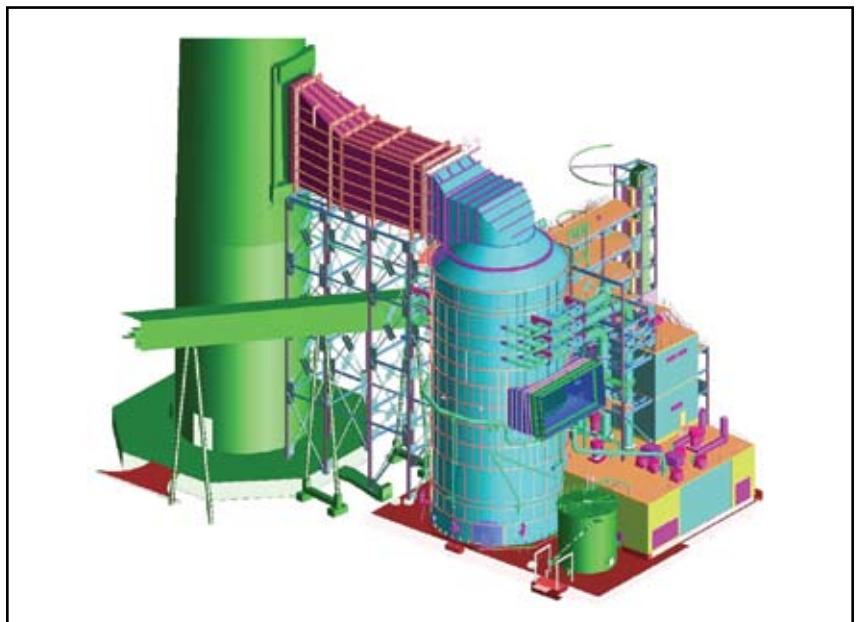
Babcock & Wilcox Power Generation Group, Inc.'s (B&W PGG) wet flue gas desulfurization (FGD) systems feature a combination of design components to provide the industry's highest level of reliability and removal efficiencies. These include B&W PGG's signature tray tower design to provide excellent gas to liquid contact and uniform flow distribution through the absorber spray zones; its patented inlet awning, interspatial headers to reduce absorber height, pump power requirements, and internal support costs; forced oxidation system; and advanced mist eliminators.

## Boiler/Plant Information

- 2 x 550 MW
- Boiler type: Pulverized coal fired
- Design fuel: Bituminous
- Additional environmental equipment: Electrostatic precipitator (ESP) and selective catalytic reduction (SCR) systems

## Project Summary

- Engineering, procurement and construction of a wet flue gas desulfurization system with two absorbers.
- System designed to remove 97% of the entering SO<sub>2</sub> without organic acid addition
- Type: Limestone forced oxidation with gypsum byproduct
- Project awarded: April 2004
- Operation dates: April 2007 and November 2007



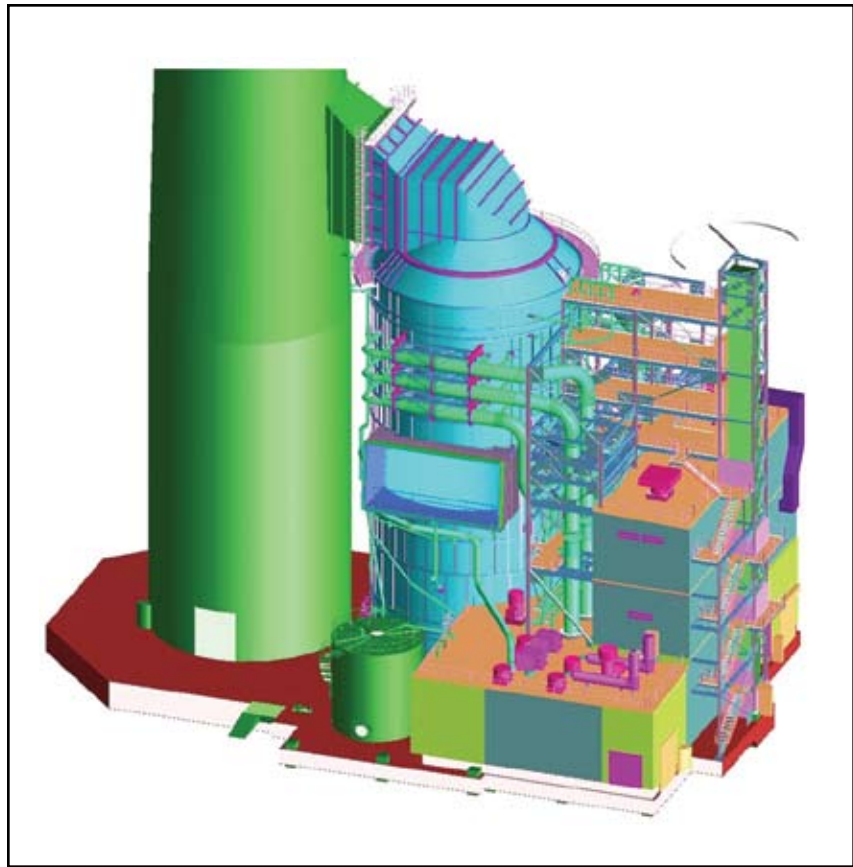
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## **B&W PGG Scope**

- Two (2) wet FGD absorbers (1 per boiler)
- Two (2) limestone milling systems (1 system per boiler)
- Gypsum dewatering systems that include (3) horizontal table filters (2 operating, 1 spare)
- Structural steel for process area
- Construction of all B&W PGG-supplied equipment, steel and balance of plant equipment (piping and architectural) through Babcock & Wilcox Construction Co., Inc. (BWCC), a B&W PGG subsidiary

## **Results**

Both commissioned units are currently meeting emissions guarantees.



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