

# Wet Flue Gas Desulfurization Systems Units 1, 2 and 3

Project Case History

Midwestern U.S. Utility

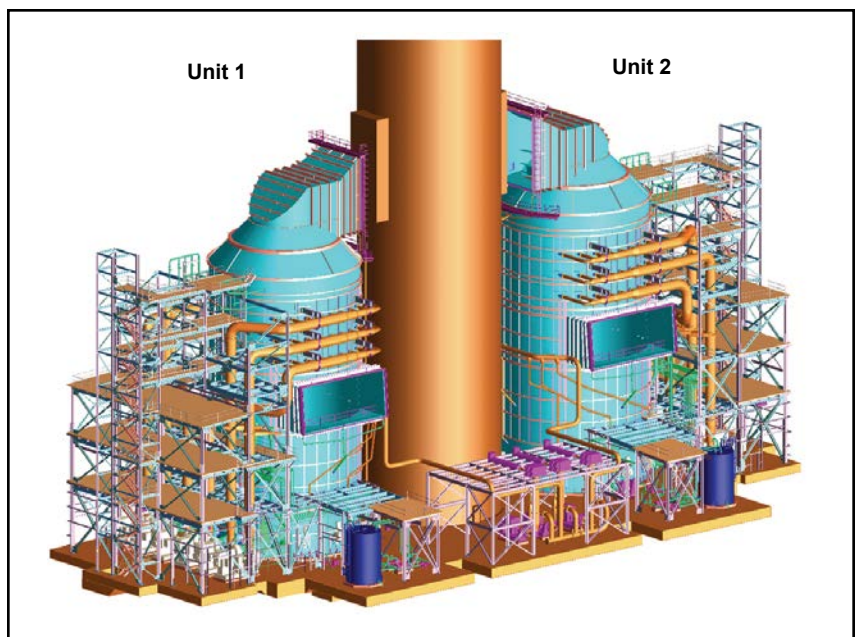
The wet flue gas desulfurization (FGD) system from Babcock & Wilcox (B&W) features a combination of design components to provide a high level of reliability and removal efficiencies. These include B&W's signature tray tower design that provides excellent gas to liquid contact and uniform flow distribution 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

- 3 x 676 MW
- Boiler type: Pulverized coal fired
- Design fuel: Bituminous
- Additional environmental equipment: Electrostatic precipitator (ESP) and selective catalytic reduction (SCR) system

## Project Summary

- Engineering, procurement and construction of a wet flue gas desulfurization system
- 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
- Operational dates: December 2006, May 2007, and October 2007
- Two additional B&W absorbers scrubbing a fourth boiler at the plant



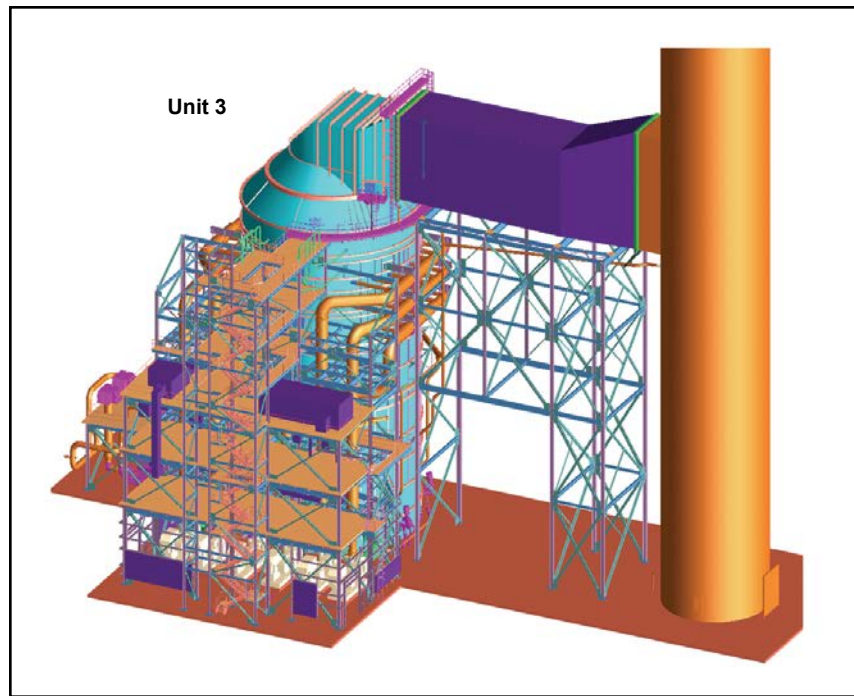
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## B&W Scope

- Three (3) wet FGD absorbers (1 per boiler)
- Three (3) limestone milling systems (1 system per boiler)
- Gypsum dewatering system that includes four (4) horizontal table filters (3 operating, 1 spare)
- Construction of all B&W supplied equipment through Babcock & Wilcox Construction Co., Inc. (BWCC), a B&W subsidiary

## Results

The project met every engineering, fabrication and construction schedule milestone. The commissioned units have met performance guarantees.



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