

# Fort Martin Units 1 and 2

Project Case History

## Plant Owner

Monongahela Power  
a subsidiary of FirstEnergy Corp.

Monongahela Power  
Maidsville, West Virginia

## Plant Name

Fort Martin Units 1 and 2

## Location

Maidsville, West Virginia

## Contract Order

2006

## Commercial Operation

2009

## Overview

The wet flue gas desulfurization (FGD) system from Babcock & Wilcox Power Generation Group, Inc. (B&W PGG) features a combination of design components to provide a high level of reliability and removal efficiencies. These include B&W PGG's signature dual 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

- 2 x 550 MW
- Boiler type: Pulverized coal
- Design fuel: Bituminous
- Additional environmental equipment: Electrostatic precipitator (ESP)



## Project Summary

- Engineering, procurement and construction of a wet FGD system
- System designed to remove 98% of the entering sulfur dioxide (SO<sub>2</sub>)
- Type: Limestone forced oxidation with gypsum byproduct
- Project awarded: April 2006
- Construction plan included on-site scrubber module fabrication area
- Operation dates: November 2009 (Unit 1); December 2009 (Unit 2)

## B&W PGG Scope

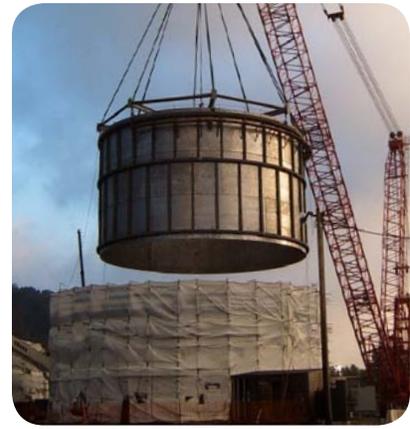
- Two (2) wet FGD absorbers (one per boiler)

- Two (2) limestone milling systems (one per boiler)
- Gypsum dewatering system including three (3) horizontal table filters (two operating, one spare)
- Buildings and structural steel
- Construction of B&W PGG-supplied equipment and steel provided by Babcock & Wilcox Construction Co., Inc.

## Results

- Both of the commissioned units have met performance guarantees
- Achieved mechanical and substantial completion milestones ahead of schedule
- Units 1 and 2 started up on schedule one month apart

(Continued on reverse side)



*The construction plan included an on-site scrubber module fabrication area that produced absorber modules for both the Fort Martin and Hatfield's Ferry sites. This plan optimized modularization opportunities because off-site modularization was not feasible due to access constraints created by locks on the adjacent Monongahela River.*



**delivering**  
proven results

[www.babcock.com](http://www.babcock.com)

**Babcock & Wilcox Power Generation Group, Inc.**

20 S. Van Buren Avenue  
Barberton, Ohio 44203 USA  
Phone: 330.753.4511  
Fax: 330.860.1886

The information contained herein is provided for general information purposes only and is not intended nor to be construed as a warranty, an offer, or any representation of contractual or other legal responsibility.

Babcock & Wilcox Power Generation Group, Inc. is a subsidiary of The Babcock & Wilcox Company (B&W). Established in 1867, the company is a world leader in providing steam generating and emissions control equipment, nuclear operations and components, and defense program management services.

For more information, or a complete listing of our sales and service offices, call 1-800-BABCOCK (222-2625), send an e-mail to [info@babcock.com](mailto:info@babcock.com), or access our website at [www.babcock.com](http://www.babcock.com).

© 2012 Babcock & Wilcox Power Generation Group, Inc.  
All rights reserved.

PCH-600 500PS2B

