

Hatfield's Ferry Station Units 1, 2 and 3

Project Case History

Plant Owner

FirstEnergy Generation Corp.
a subsidiary of FirstEnergy Corp.

FirstEnergy Generation Corp.
Masontown, Pennsylvania

Plant Name

Hatfield's Ferry Station
Units 1, 2 and 3

Location

Masontown, Pennsylvania

Contract Order

2006

Commercial Operation

2009

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 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

- 3 x 570 MW
- Boiler type: Pulverized coal
- Design fuel: Bituminous
- Additional environmental equipment: Electrostatic precipitators (ESP)



Project Summary

- Engineering, procurement and construction of a wet FGD system
- System designed to remove 98% of the entering sulfur dioxide (SO₂)
- Type: Limestone forced oxidation with gypsum byproduct
- Project awarded: April 2006
- Construction plan included on-site scrubber module fabrication area
- Operation dates: June 2009 (Unit 1); October 2009 (Units 2 and 3)

B&W Scope

- Three (3) wet FGD absorbers (one per boiler)
- Three (3) limestone milling systems (one per boiler)
- Gypsum dewatering system including four (4) horizontal table filters (three operating, one spare)
- Buildings and structural steel
- Construction of B&W-supplied equipment and steel provided by Babcock & Wilcox Construction Co., Inc.

Results

- Achieved mechanical and substantial completion milestones ahead of schedule
- All commissioned units have met performance guarantees

(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.



ENERGY | ENVIRONMENTAL

www.babcock.com

Babcock & Wilcox
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.

Established in 1867, Babcock & Wilcox is a global leader in advanced energy and environmental technologies and services for the power and industrial markets, with operations, subsidiaries and joint ventures worldwide.

For more information, or a complete listing of our sales and service offices, send an e-mail to info@babcock.com, or access our website at www.babcock.com.

© 2012 The Babcock & Wilcox Company. All rights reserved.

