### John W. Turk, Jr. Unit 1

#### Southwestern Electric Power Company American Electric Power

Fulton, Arkansas

#### Plant Owner

Southwestern Electric Power Company, American Electric Power

*Plant Name* John W. Turk, Jr. Unit 1

*Location* Fulton, Arkansas

Contract Order

# **Commercial Operation** 2012

#### B&W PGG Scope

- Ultra-supercritical coal-fired boiler with air quality control system
- Construction by Babcock & Wilcox Construction Co., Inc.
- Startup and commissioning advisory services
- Training

#### **Boiler Specifications**

- Boiler type: Pulverized coal-fired spiral wound universal pressure (SWUP) ultra-supercritical boiler
- Design fuel: Low sulfur Powder River Basin coal
- Nominal capacity: 600 MW net
- Steam flow: 4,419,400 lb/h (557 kg/s)



The 600 MW John W. Turk, Jr. Power Plant features ultra-supercritical boiler clean coal combustion technology and advanced emissions control equipment.

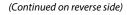
- Superheater outlet pressure: 3789 psig (26.2 MPa)
- SH/RH outlet temperature: 1114/1126 F (601/608 C)

#### Environmental Equipment

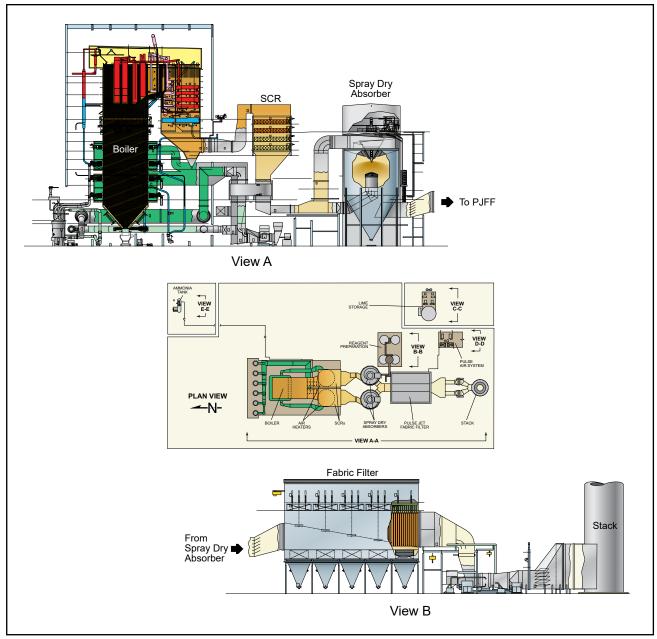
- DRB-4Z° low NO<sub>x</sub> burners and overfire air
- Selective catalytic reduction (SCR) NO<sub>x</sub> removal system
- Spray dry absorber flue gas desulfurization system
- Pulse jet fabric filter particulate collector

## Other Equipment Supplied by B&W PGG

- B&W Roll Wheel<sup>®</sup> pulverizers, Series 98
- Convection pass and Hydrojet\* sootblower boiler cleaning systems by Diamond Power International, Inc., a B&W PGG subsidiary
- Powerclean<sup>™</sup> intelligent sootblowing system







Sectional sideview of John W. Turk, Jr. unit 1 boiler with air emissions control equipment.

#### Babcock & Wilcox

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