



Babcock Power
ENVIRONMENTAL

SUCCESS STORIES

NRG CONEMAUGH

SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEMS

LOCATION NEW FLORENCE, PA, U.S.A.
CAPACITY (2) 900 MW

PROJECT OVERVIEW

Babcock Power Environmental was contracted to supply NRG Energy's Conemaugh Station with two Selective Catalytic Reduction (SCR) systems for their two 900 MW coal fired boilers in New Florence, PA, U.S.A. Responsibilities of the contract include basic design, detail design, procurement, fabrication and delivery, construction support and start-up & commissioning of the SCR systems. The original project scope was designed for NO_x reduction but was switched to Hg reduction by the client in order to meet mercury emission requirements in Pennsylvania.



BABCOCK POWER ENVIRONMENTAL SOLUTION

- + Two reactors: 55'-0" L x 58'-8" W
- + Four layer reactor: designed for 2 x 2 original loading with two layers of honeycomb catalyst per reactor/unit
- + Initial loading changed to one layer COMET catalyst per reactor/unit
- + 136 catalyst modules per layer in an 8 x 17 arrangement
- + Total duct/reactor weight: 3.5 million pounds per unit

PERFORMANCE RESULTS

NRG Conemaugh SCRs were designed and supplied ahead of schedule and under budget. Babcock Power was able to work dynamically with the client to change catalyst scope mid-project with no overall impact to quality or schedule.

PERFORMANCE MEASUREMENTS

SO ₂ to SO ₃ Conversion	< 0.30
Elemental Mercury Oxidation	> 92%
Temperature Distribution	< ± 20 °F
SCR System Pressure Drop	6.2 in. w.c.

