



BabcockPower
ENVIRONMENTAL

SUCCESS STORIES DTE MONROE

SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

LOCATION MONROE, MI, U.S.A.
CAPACITY (1) 805 MW

PROJECT OVERVIEW

Babcock Power Environmental was contracted by Detroit Energy (DTE) to supply the fourth and final RPI Selective Catalytic Reduction (SCR) System on their Unit #2 805 MW B&W SC boiler at the Monroe Power Plant in Monroe, MI, U.S.A. Responsibilities of the contract include basic design, detail design, procurement, fabrication and delivery, construction support and start-up and commissioning of the SCR system. The main objective of the project was to reduce overall NO_x emissions for DTE.



PERFORMANCE MEASUREMENTS

NO_x Removal	$\geq 90\%$
Ammonia Slip	$\leq 2 \text{ ppmvd at } 3\% \text{ O}_2$
SO_2 to SO_3	$\leq 1.5\%$
SCR Pressure Drop	$\leq 8.5 \text{ iwg}$



BABCOCK POWER ENVIRONMENTAL SOLUTION

- + Two reactors: 57'-9" L x 45'11" W
- + Four layer reactor: designed for 2 x 2 original loading with honeycomb catalyst
- + Initial loading three layer plate catalyst (NO_x type)
- + 96 catalyst modules per layer in a 6 x 16 arrangement
- + Total duct/reactor weight: 4.1 million pounds

PERFORMANCE RESULTS

DTE Monroe Unit #2 was designed and supplied on schedule which allowed Babcock Power's consortium partner and erection contractor, URS, to complete the project ahead of the original plan. The technology performed as designed and passed all performance guarantee requirements. This allows DTE to operate their Unit #2 in compliance with all emissions requirements.

