

SUCCESS STORIES
TURNKEY RETROFIT
OF ENVIRONMENTAL SYSTEMS

#### NATURAL CIRCULATION, HORIZONTAL FLOW UNITS

LOCATION CALIFORNIA

### **PROJECT OVERVIEW**

#### HRSG

- + No. of Units: 3
- + Type: Natural Circulation, horizontal flow units supplied by Vogt

# **VOGT POWER SOLUTION**

- Pre-fabricated the CO catalyst frame for trouble-free installation into the existing inlet duct
- Designed custom NO<sub>x</sub> catalyst blocks to incorporate them into the original catalyst frame with minimum modification
- + Upgraded gas-side sealing systems for CO and NO<sub>v</sub>(SCR) systems
- + Installed NO<sub>v</sub> catalyst blocks by using original loading window
- + Installed CO catalyst blocks

## PERFORMANCE RESULTS

- Reduced CO and NO<sub>x</sub> emissions below 6 ppmvd and 2.5 ppmvd respectively by executing the most viable solution based on the existing equipment and operating conditions supplied by the customer
- Reviewed original operating and design conditions of NO<sub>X</sub>(SCR) system in order to ensure that new operating conditions could be handled by existing equipment (i.e. ammonia system)
- + Eliminated the necessity of any major modifications
- + Engineering, material, construction and supervision services
- + Well-thought pre-fabrication and construction strategy to minimize modi-fications and expedite construction time



## AFTERMARKET PRODUCTS

- + HRSG spare parts
- Access doors
- Complete modules
- Bare and finned tubes
- + Headers
- + Steam drums
- Heat exchangers
- Valves/instruments
- Control systems
- Diverter valves/dampers
- Burner management systems
- Environmental controls (CO/NO<sub>v</sub> systems)
- + Freeze protection
- Inspection services
- Computational Fluid Dynamics (CFD) analysis capabilities
- + Performance testing
- + Casing seals
- Casing and insulation
- **+** Expansion joints
- Pressure vessels
- Feedwater heaters
- Rolled cylinders
- Deaerators
- + Stacks
- Return On Investment (ROI) analysis
- + Thermal studies
- + Pipe stress

