



## SUCCESS STORIES

# TURNKEY RETROFIT: OREGON

**FORCED CIRCULATION, VERTICAL GAS FLOW, VINTAGE 1970S**

## PROJECT OVERVIEW

### HRSG

- + No. of Units: 6
- + Type: Forced circulation, vertical gas flow, vintage 1970s

## VOGT POWER SOLUTION

- + Design Goal: 21,000 lb/hr steam flow increase for each unit
- + Actual total energy output after the retrofit: 3.4% higher than the guaranteed total energy output
- + Actual gas side pressure drop: 2.9" wc. below the guaranteed level
- + State-of-the-art, all-welded replacement parts

## PERFORMANCE RESULTS

- + Exceeded performance guarantee points
- + Project completion on schedule
- + Vertical gas flow (forced circulation) HRSG retrofit
- + 21,000 lb/hr increase in steam flow per unit



## 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>x</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