

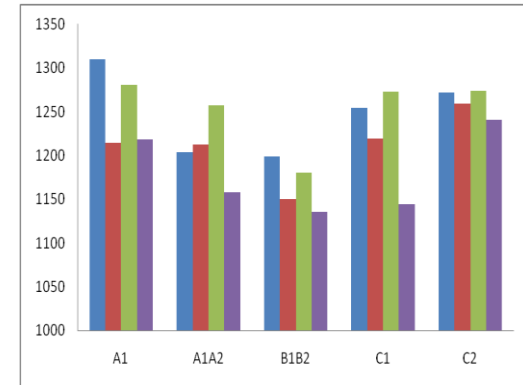
High Accuracy Temperature Profiling on Tangential Boiler

Xiagang Power Station, China

300MW Tangential Coal-Fired Boiler

Boiler supplied by Shanghai Boiler Works (China)

20 Observation Ports were used to view inside the furnace



Challenges

- Off-centered firing problems
- High temperature corrosion observed on sections of the water wall
- No method for accurately measuring temperature distribution in the furnace

Procedures

- Field testing engineers evaluated site conditions and 20 view ports were selected for measurement on Aug 3rd 2015.
- TempVision 1000 Portable Temperature Measurement System was utilized to capture flame profiles via each of the selected view ports

Results

- Results identified major differences between C1-3 and C1-4, as much as, 129°C that severely affected the furnace temperature distribution
- Plant operators now have a tool to troubleshoot combustion and temperature distribution problems, as well as, a method to check their corrective actions