

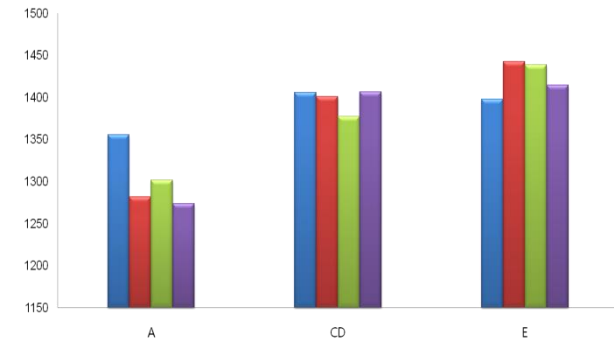
High Accuracy Temperature Profiling on Tangential Boiler

Shanghai Shidongkou Power Station, China

300MW Tangential Coal-Fired Boiler

Boiler supplied by Shanghai Boiler Works (China)

12 Observation Ports were used to view inside the furnace



Challenges

- Off-centered firing problems
- Severe slagging during normal operations
- High emissions at SCR inlets.
- No method for accurately measuring temperature distribution in the furnace

Procedures

- Field testing engineers evaluated site conditions and 12 view ports were selected for measurement on Jul. 1st 2015.
- Safe Fire's 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 A1 and A4, as much as, 82°C that 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