

### Upgrading Boiler Controls with YS1700

**Industry:** Power  
**Product:** YS1700

#### Introduction

The power plant for a small town has a single, coal fired boiler controlled by Bailey SLC controllers. Concerned about support issues for the aging controllers, the power plant initiated a control upgrade project.



Control board with new YS1700

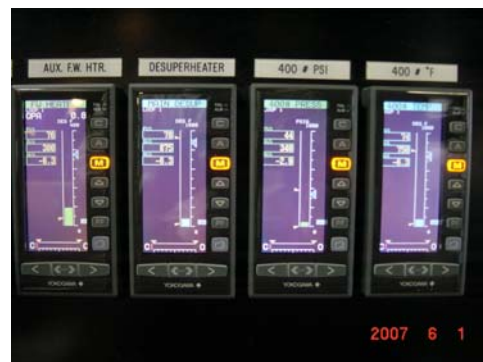
#### Application

The initial phase of the project involved replacing the following controllers:

- ▶ Main steam desuperheater
- ▶ Header pressure
- ▶ Auxiliary feed water heater
- ▶ Steam temperature
- ▶ Utility steam pressure



YS1700 dual loop display



New YS1700 Controllers in Panel

## Upgrading Boiler Controls with YS1700

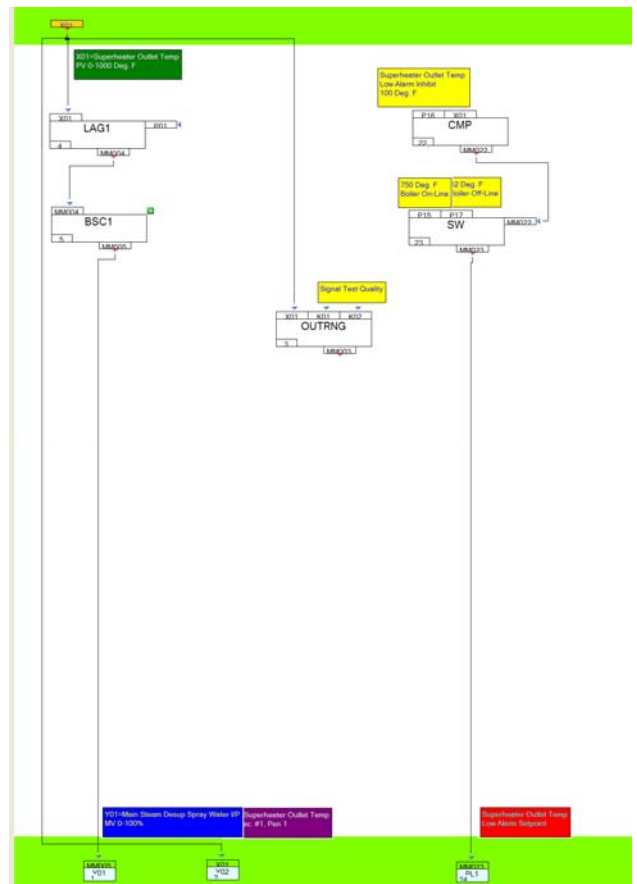
### Solution

The customer evaluated a number of ½ DIN PID controller products. The new YS1700 dual loop controller from Yokogawa was the final selection. Reasons for the selection of the YS1700 included:

- ▶ YS1700 is a new product designed for extended product life.
- ▶ High impact, color LCD display
- ▶ Drag and drop graphic programming software
- ▶ Extensive communication options including
  - MODBUS TCP
  - MODBUS RTU
  - Peer to peer.
- ▶ Complete backwards compatibility with previous generation Yokogawa controllers (YS100 and YS80)

Using the graphic programming software for the YS1700, the system integrator working on the project recreated the existing Bailey control logic as new programs for the YS1700. The reduced panel depth of the YS1700 controllers allowed for easy rewiring.

The power plant is up and running with the new YS1700 controllers. Phase II of the upgrade which will replace all the remaining Bailey controllers is planned for 2008.



Graphic Programming Sample



YS1700 vs Bailey SLC: panel depth