



SIEMENS PS2 DIGITAL POSITIONER USED ON FEEDWATER VALVE

BACKGROUND

A large power producer in the northeast US has a four unit power generation plant that operates on demand, based upon bid price to the area ISO. Plant efficiency and speed of response is imperative so it was decided that the plant would install the industry established Siemens PS2 digital valve positioner.

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CHALLENGE

The essential requirements for this installment were the repeatability and the precision of the valve positioner. Currently the analogue I/P and pneumatic input analog positioner did not provide repeatable valve positioning with the controller in "manual." The operations fill procedures called for an output to the valve of 50%. The plant experienced a slow fill that delayed their tie-in to the grid. Evaluation of the issue revealed that the valve was only at approximately 25% of travel. The existing analogue devices in-situ provide input to the valve position that is "drifting" with changes in temperature and vibration. Recalibration did not solve the control problem.

SOLUTION

The Siemens PS2 digital valve positioner is being used on a feedwater and startup valve for Unit 3. The operations department fills the drum with the controls in manual mode. Startup procedures call for the operator to provide an output to the feedwater valve at a prescribed level. Repeatability and accuracy of the valve position in response to the controller output in "manual mode" is critical to the drum fill procedure.

The Siemens PS2 positioner replaces a competitor's analog I/P and a pneumatic input positioner. The PS2 unit includes a two-wire, valve position feedback transmitter to confirm the valve position to the operator in the control room.

RESULT

The Siemens PS2 digital positioner provides accurate, repeatable control. This device replaced both the analogue I/P and the pneumatic positioner, streamlining the control circuit and eradicating the components that were "drifting." The PS2 unit also provides positive feedback indication at the control room.

EQUIPMENT SUPPLIED

- Siemens PS2 digital valve positioner

