

Actuator Upgrades on Coal and Gas Fired Boilers have saved PPG Industries an estimated \$174K in maintenance costs and \$250K/yr in fuel costs.

West Virginia U.S.A.

PPG Industries is a specialty chemical company that serves the aerospace, architectural and packaging industries, to name a few. In 2006, PPG's West Virginia facility had an initiative to reduce fuel and maintenance costs associated with its boilers. As part of this initiative, PPG planned to replace their pneumatic actuators over the next few years. The pneumatic actuators had been operating many of the forced draft, induced draft, and over-fired air dampers, as well as fluid couplings and various valves. Since these applications are crucial to a boiler's efficiency, it was important that the actuators could control with precision and reliability. The existing pneumatic actuators lacked these capabilities.

applications. Four years, and nearly forty actuators later, Stephen Chapman, a design engineer with PPG Industries, sums up the qualitative and quantitative benefits realized so far with the new Beck installs:

"Not only do we have better control of our coal and gas fired boilers (which by itself has saved us an estimated \$250,000 per year in fuel costs), we are also able to eliminate thousands of dollars in PMs (preventative maintenance work orders) that to date has saved us \$174,000 in parts and labor over the old pneumatic positioners that required continuous maintenance."

Beck precision electric actuators were chosen as the replacement with the first installation taking place towards the end of 2006 on the Mill Cold Air dampers. Beck's 100% continuous duty actuator had an immediate impact, providing superb control capabilities along with the durability and reliability required for boiler



Figure 1

Beck 11-209 Coal Mill Damper Actuators



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