

Emerson PACSystems™ RX3i Solution Powers Wet Flue Gas Desulphurization (FGD) System in India

RESULTS

- Reduced project implementation costs compared to full DCS integration
- Minimal impact on operations during implementation
- No impact on main plant DCS operations, saving engineering time and cost for scaling DCS

APPLICATION

Wet FGD application.

CUSTOMER

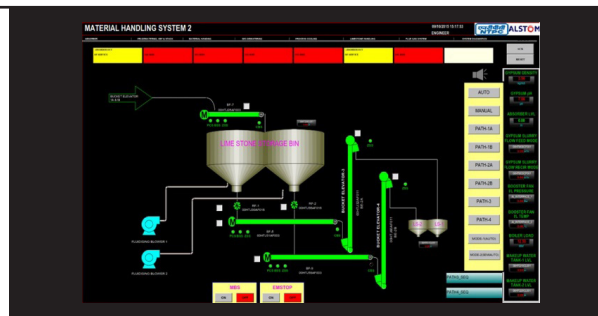
Thermal Power Station, India.

CHALLENGE

During a re-design of a power plant focused on implementation of a new wet flue gas desulphurization (FGD) solution developed to reduce emissions, the plant required modifications to its DCS control system. These modifications would cause disruption in DCS operations. As a result, the plant wanted to pursue a standalone control solution that could operate outside of the existing DCS but seamlessly communicate and integrate into it. The plant sought to implement the new FGD solution without impacting ongoing operations. In addition, they sought to define a standalone solution that would provide high availability and consistent performance once in operation.

SOLUTION

Since redundancy was a key criteria for the selection process, Emerson's PACSystems control platform was chosen as the winning solution following the OEM's selection analysis. The control solution, which was designed with a global engineering team, focused on high availability, employing redundant Emerson PACSystems RX3i controllers. Since the Emerson PACSystems control platform



The PACSystems RX3i control platform provides high availability and cybersecurity capabilities, and implementation was fast and easy with minimal impact on operations.

provides true high availability, plus the ability to upgrade without stopping the process and a host of cybersecurity features, the PACSystems solution was considered the superior choice for the plant's requirements. The control solution incorporated Emerson high availability PACSystems controllers with 3,500 I/O points and 15,000 tags, as well as user-defined function blocks (UDFB) and HMI pop-up objects for customized step sequencing. This unique, flexible and customized control system allowed faster and easier implementation and installation with higher operating reliability and lower downtime.

Meeting one of the core criteria, implementation of the control solution was completed with no disruptions to plant operations. Factory Acceptance Testing (FAT) blocks enabled the end user to test functionality in offline mode and ensure the solution worked as required before going online on site.

The unique functionality of the Emerson PACSystems solution allowed easy integration with the plant DCS, thereby providing a central view and control of the FGD system via central DCS HMI screens.

RESOURCES

PACSystems

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