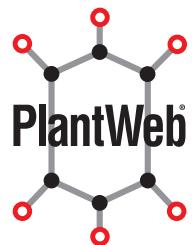


Emerson's PlantWeb® Architecture enabled Jubilant to achieve maximum Plant Availability and reduce costs with FOUNDATION fieldbus™ Technology



RESULTS

- Reduction in panel size by 40%
- 25% savings by using FISCO Intrinsic Safety method in hazardous areas
- Loop check and commissioning time reduced by 130 manhours
- Precise and accurate control using FOUNDATION fieldbus Analyzers



APPLICATION

Manufacturing of Formaldehyde and Acetaldehyde.

CUSTOMER

Jubilant Organosys is an integrated pharmaceutical industry player, one of the largest custom research and manufacturing (CRAMS) and Drug Discovery and Development Services companies out of India. They are present across the pharmaceutical value chain, from drug discovery, functional chemistry and clinical research services to custom research and manufacturing services for Advance Intermediates and Fine Chemicals, Active Pharmaceutical Ingredients and Dosage Forms.

Jubilant Organosys Limited, Gajraula (U.P.) is among one of their geographically diversified seven manufacturing facilities at Nanjangud (Karnataka), Roorkee (Uttarakhand), Nira (Maharashtra), Samlya (Gujrat), Salisbury, States of Maryland(USA) and Spokane, state of Washington(USA).

"We maximized FOUNDATION fieldbus systems & products from Emerson since they provided more capabilities and diagnostics features. As an automation system, it provided tighter integration. Plant start up was easier and faster since we were able to connect and commission the devices quickly thanks to auto recognizing feature of the devices. Emerson remains our most trusted partner."

Neeraj Tiwari
Associate Vice President (Technical)
Jubilant Organosys Ltd

For more information:
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CHEMICAL

CHALLENGE

With growing demand for industrial products such as Formaldehyde and other aldehydes, Jubilant Organosys faced a major challenge to increase its production throughput, plant availability and product quality with lower costs. It is also expected to leverage the predictive intelligence in the field instruments to anticipate possible failure of field instruments and avoid unplanned downtime.

SOLUTION

Jubilant choose the state-of-art Emerson's PlantWeb digital architecture with FOUNDATION fieldbus technology which improved plant performance and availability by utilizing the maximum benefits of latest technologies, including intelligent field devices. The project included:

- DeltaV™ process automation system
- AMS Suite™ software
- Rosemount® pressure and Multi point 848T temperature transmitters (all FOUNDATION fieldbus)
- Rosemount® Micro Motion® FOUNDATION fieldbus Coriolis flow meters
- Rosemount® Analytical FOUNDATION fieldbus instruments
- Fisher® Valves with FOUNDATION fieldbus FIELDVUE® digital valve controllers

Emerson's PlantWeb digital architecture with FOUNDATION fieldbus technology utilized less number of I/O cards compared to conventional approach. Analog input, analog output and RTD/TC I/O cards were replaced with H1 cards and 848T FOUNDATION fieldbus multi point temperature transmitters. This effectively reduced the I/O footprint and number of terminations which enabled to cut down the panel size by 40%.

Since the plant design philosophy was to use Intrinsic Safety protection methods, Jubilant decided to use FISCO Concept in stead of the Entity concept, which allowed connecting more devices per segment, reducing the number of segments, power conditioners, H1 cards, cables and terminations. In addition, FISCO technology helps Jubilant to do live maintenance of field instruments. This improved the plant availability and reaped savings by 25%.



CHEMICAL

FOUNDATION fieldbus technology allowed faster installation and commissioning of the devices. Loop check time was substantially reduced due to ease of use features, such as auto recognition, auto addressing and drag and drop commissioning of the devices and enabled a total savings of 130 man hours.

Jubilant achieved a better control of the process by using precise and accurate information of FOUNDATION fieldbus Analyzers. Its predictive diagnostic data was very helpful for easier maintenance which enhanced plant maximum performance and productivity.

In a nutshell, Jubilant has benefited by using latest technologies from Emerson's PlantWeb digital architecture in the area of savings due to multi input and multivariable instruments, faster commissioning and online diagnosis of FOUNDATION fieldbus devices. By using the predictive intelligence of field devices, operation and maintenance departments are able receive the device alerts before they impact the process which help to avoid unscheduled shutdown and reduce maintenance costs.

As a mark of mutual trust, Jubilant awarded Emerson Process Management the "Most Trusted Partner Award" for the year 2008.



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