

Global Pharmaceutical Company Enjoys Seamless System Upgrade with Emerson™ Smart Wireless Technology

RESULTS

- Saved \$200,000 in material costs
- Decreased downtime and commissioning time
- Reduced maintenance costs
- Increased measurement reliability



The customer reduced the cost of their plant expansion by 40% using wireless technology.

APPLICATION

Wastewater treatment

CUSTOMER

A global pharmaceutical company

CHALLENGE

The customer needed to replace their existing control system, as it was becoming obsolete. Additionally, as a part of an expansion of their manufacturing process, the wastewater treatment area required an upgrade to maintain regulatory compliance. It was critical to the customer to achieve an efficient transition from their existing control system to the new Emerson DeltaV™ system with as little downtime as possible to minimize the impact on plant operations. The customer's plan included the replacement of several instruments with new FOUNDATION™ Fieldbus devices.

The customer required long-term instrument reliability as the wiring for their existing instruments had corroded, resulting in lost measurements. Standardization was also important to this customer. They needed to comply with industry standards as well as maintain treatment area operation to meet local agency (EPA) requirements, all while minimizing downtime.

If they were not able to transition the control systems quickly and smoothly, it would negatively impact plant operations and regulatory environmental compliance.

SOLUTION

The customer transitioned from their existing Foxboro control system to the new DeltaV control system. By utilizing wireless technology, the customer had and was able to maintain parallel system communication. The installation of Smart Wireless THUM™ Adapters to the existing HART® instrumentation, mainly Rosemount Magnetic Flowmeters, permitted the 4 to 20 mA HART signals to communicate



Smart Wireless THUM Adapter

with the existing control system while at the same time transmitting the wireless signal to the Gateway into the new DeltaV control system. The original project scope included instrument replacement with new FOUNDATION Fieldbus instruments. Wireless technology and the THUM Adapter eliminated the need to replace all the instruments. Installation and wiring costs were decreased since no additional wiring was needed to send instrument signals to the gateway.

Environmental conditions had previously negatively affected the reliability of the measurements due to corrosion of the wiring. Wireless technology eliminated the potential for wire corrosion, thus creating a more robust instrument network. The wireless solution also resulted in a seamless setup and integration during the transition from the existing Foxboro system.

The customer's original plan included a material cost of \$300,000 to replace the wired devices with new wired devices. The cost was decreased to \$100,000 by converting their system to wireless technology via the THUM Adapter.

Wireless technologies allowed this site to take advantage of the benefits of implementing a streamlined wireless architecture. The customer decreased installation and commissioning time plus material costs by avoiding the need for new instruments and cables. By implementing this solution, the customer saved a total of 40% compared from the original wired device setup.

“Being able to keep the Foxboro system operating as we migrated the wireless instrument justified the wireless investment because of the seamless startup and integration.”

RESOURCES

Emerson Process Management Power and Water Solutions

www2.emersonprocess.com/en-US/divisions/power-water/Pages/powerwater.aspx

Rosemount Smart Wireless THUM Adapter

www2.emersonprocess.com/en-us/brands/rosemount/wireless/thum-adapter/pages/index.aspxw

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Global Headquarters


Emerson Process Management

6021 Innovation Blvd.

Shakopee, MN 55379, USA

 +1 800 999 9307 or +1 952 906 8888

 +1 952 949 7001


 RFQ.RMD-RCC@EmersonProcess.com


Europe Regional Office

Emerson Process Management Europe GmbH

Neuhofstrasse 19a P.O. Box 1046

CH 6340 Baar, Switzerland

 +41 (0) 41 768 6111

 +41 (0) 41 768 6300

 RFQ.RMD-RCC@EmersonProcess.com


Middle East and Africa Regional Office


Emerson Process Management

Emerson FZE P.O. Box 17033,

Jebel Ali Free Zone - South 2

Dubai, United Arab Emirates

 +971 4 8118100

 +971 4 8865465


 RFQ.RMTMEA@Emerson.com


Asia Pacific Regional Office

Emerson Process Management Asia Pacific Pte Ltd

1 Pandan Crescent

Singapore 128461

 +65 6777 8211

 +65 6777 0947

 Enquiries@AP.EmersonProcess.com

00830-0300-4075, Rev AA