

Chemical Manufacturer Improves Safety and Reduces Costs with Smart Wireless Solution

RESULTS

- \$15,000 in reduced operations and maintenance costs
- Increased plant safety
- Early detection of temperature excursions



APPLICATION

Railcar chemical storage temperature

CUSTOMER

Croda Inc., Mill Hall, PA

CHALLENGE

Croda Inc. is a wholly owned subsidiary of Croda International Plc, a U.K.-based manufacturer and worldwide supplier of oleo and industrial chemicals. The Mill Hall plant had a problem monitoring rising temperatures in railcars containing chemicals. Normally, three railcars are remotely located on-site. Since the railcars are frequently moved, hard wiring of temperature sensors was not practical. Employees had to climb to the top of each car once a day to check the temperatures and record each reading. This was a time-consuming procedure that during wet or icy conditions presented a fall potential.

SOLUTION

Emerson Process Management successfully applied a Smart Wireless solution. No matter where the railcars may be positioned at the Mill Hall plant, a wireless temperature transmitter on each car sends minute-by-minute temperature readings to a central host. Croda uses this information to improve the performance and safety of their facility. In this way, Emerson's wireless system contributes to overall plant safety, making operators aware of any unexpected temperature rise, while saving the company about \$15,000 per year in reduced maintenance.

The wireless temperature transmitters are quickly and easily installed atop a railcar upon its arrival at the site, and they remain there until the car is about to be removed. The wireless communications pass through a Smart Wireless Gateway (receiver) and on to the plant's DeltaV™ control system. While the operators watch for rising temperatures, transmitter performance and diagnostics are simultaneously checked by Emerson's AMS® Suite: Intelligent Device Manager.

“Emerson’s wireless solution not only saves us time and money, since plant personnel no longer have to monitor those railcars daily; it has also greatly enhanced the overall safety of the plant and our personnel.”

Denny Fetters
Instrument and Electrical Designer

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Process Management

SOLUTION (CONTINUED)

According to Denny Fetters, Instrument and Electrical Designer for Croda, “Emerson’s wireless solution not only saves us time and money, since plant personnel no longer have to monitor those railcars daily; it has also greatly enhanced the overall safety of the plant and our personnel. We are pleased with the performance of the Rosemount transmitters and Emerson’s self-organizing mesh network. No matter where a railcar is positioned on-site, the quality of the transmission is unaffected, and the signals integrate seamlessly into our control system.”

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Emerson Process Management

Rosemount Division
8200 Market Boulevard
Chanhassen, MN 55317 USA
T (U.S.) 1-800-999-9307
T (International) (952) 906-8888
F (952) 949-7001

www.rosemount.com

Emerson Process Management

Heath Place
Bognor Regis
West Sussex PO22 9SH,
England
T 44 1243 863121
F 44 1243 867554

Emerson Process Management

Emerson Process Management Asia Pacific
Private Limited
1 Pandan Crescent
Singapore 128461
T (65) 6777 8211
F (65) 6777 0947
Enquiries@AP.EmersonProcess.com

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For more information:
www.rosemount.com