

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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SOLUTION (CONTINUED)

According to Denny Feters, 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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