

Smart Wireless Vibration Monitoring Used to Reduce Environmental Damage

BENEFITS

- Wireless vibration transmitters provide early indication of potential emissions problem remotely
 - Plant personnel are no longer exposed to potentially hazardous area
- Solution was cost-effective and easily installed
- Data collected is routed to plant historian for trending



CHALLENGE

In refineries, there are parts of the plant that are hazardous. In one such area, a customer had a series of pumps that moved hydrocarbon-based products and needed to avoid any release of hydrocarbons into the atmosphere. Since high vibration is an early indicator of a machine problem that can lead to emissions, the customer was collecting vibration data by sending plant personnel into the area. Because the area could be hazardous, the customer wanted to collect this data remotely. Various permanently installed vibration monitoring solutions had been explored, but none readily met the challenge. Wired vibration monitoring systems are often an expensive and time-consuming proposition that the customer wanted to avoid.

SOLUTION

The customer installed a network of Rosemount Wireless Transmitters and CSI 9420 Wireless Vibration Transmitters for monitoring pump vibration levels. The monitoring solution, including the devices and the gateway, was installed in just a few days. The information was routed back to the plant historian for trending and the information was available to operators so the vibration levels could be monitored throughout each shift.

RESULTS

With Emerson's Smart Wireless solution, the customer avoided an expensive and lengthy installation process. The CSI 9420 enabled plant personnel to monitor the vibration levels of these assets without having to walk into a potentially hazardous area. With the permanent installation, the data was available more often than before. Now the customer's vibration analysts only have to enter the area if a problem is identified.