

Case Study

Wireless Tank Farm Monitoring

Company Profile

This customer is a leading specialty chemicals company with 60 production sites worldwide. They specialize in the development, manufacturing, and marketing of chemical intermediates, additives, specialty chemicals, and plastics.

Challenge

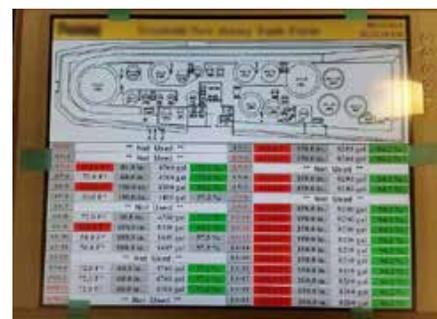
An industrial lubricants manufacturer maintains over 50 tanks of finished material. The operator selects which tanks' product is to be transferred to a given truck based on inventory in the many tanks on premises. Without a live system giving the operator tank levels, the operator needs to estimate the actual inventory being held in the tanks or deploy plant personnel to climb the tank to gauge the level using a long, measured rod. During winter, safety was a concern for personnel physically climbing the tanks to gauge them. The tank farm lacked signal and power wiring for instrumentation.

Solution

Rawson/Industrial Controls provided a wireless pressure monitoring system to measure 50 individual tank levels through a customer-installed bubbler system, using Honeywell's ISA100 standard wireless system. The 50 wireless differential pressure transmitters communicate throughout the tank farm to two field access points, which communicate to a gateway serving the information to the customer's computer using Modbus TCP or OPC protocols.

Rawson/Industrial Controls provided Emerson's Cimplicity HMI/ SCADA software to display real-time tank levels for the operator so that there would always be visibility of where inventory was being held, and technicians would no longer need to climb the tanks to take measurements.

At a cost of \$90,000, this project was 50% less costly than running a wired infrastructure. The wireless system also provides an easier expansion path since new wiring was not needed when the customer chose to add 10 more devices to the system.



Results

With a functional wireless instrumentation network in place, the plant has added other wireless instruments related to safety, such as remote indication of safety shower use and sump overflow level detection