Water authority chooses Siemens pressure transmitters for accuracy, reliability, and ease-of-use

Situation

A county water authority in the Northeast U.S. supplies over 40 million gallons per day to its 340,000 residential customers. The water authority buys water wholesale from a number of different supply connections.

This customer has a large distribution network that consists of 1,773 miles of water main with 47 storage facilities and 36 pumping facilities. Within that distribution system, they monitor flow and pressure at over 300 locations. These locations are mostly connected back to the SCADA system via wireless telemetry.

Challenge

The water authority uses Venturi primary flow elements and a DP pressure transmitter for their flow measurement in the large distribution lines. Most of these locations are remote and communicate to RTUs (Remote Terminal Units). The information is sent wirelessly to the main SCADA system for billing purposes. The previous supplier only offered a transmitter that could be set up via a Hart® communicator or with a software program.

This customer also monitors over 300 points for line pressure throughout the distribution network. They were using a competitor's gauge pressure transmitter for the measurements. Due to the remote nature of the application and the potential for lightning damage, it was quite costly to replace these units on a regular basis due to storm damage.

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Solution

The local Siemens representative provided the customer with the Sitrans P DSIII pressure transmitter for use with the Venturi elements to measure flow on their distribution lines. The SITRANS P Series DSIII is a precision digital transmitter for pressure, absolute pressure, differential pressure, flow, and level, and has extensive diagnostics and simulation functions. In addition to the reliability and accuracy, the customer was pleased with the fact that the DSIII transmitters could be quickly and easily calibrated using the on-board push-button configuration. They were also sold on the 5-year warranty on the transmitter.

For the 300 points of line pressure, the customer chose the Siemens Z-Series gauge pressure transmitter because of its accuracy, compact size, and lower cost. The SITRANS P Series Z is a compact, single-range transmitter for measuring absolute and relative pressure.

The customer has now standardized on Siemens pressure transmitters for these applications.

Benefits

- Cost savings: The Z-Series pressure transmitters used for the line pressure were much less expensive to purchase than the competitive units previous being used. Any needed replacement costs have dropped.
- The cost in time and manpower to install and calibrate the DSIII pressure transmitters being used with the Venturi flow elements has been reduced with the easy to use push-button option.
- Flexibility and ease of use: Calibration and configuration options on the DSIII transmitters make setup easier. Diagnostic capabilities make trouble-shooting simple.
- Reliability: Siemens confidence in the transmitter's reliability is evident by the DSIII transmitter's standard 5-year warranty.

Siemens Industry, Inc.
3333 Old Milton Parkway
Alpharetta, GA 30005
1-800-964-4114

info.us@siemens.com

www.usa.siemens.com/ia

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