Municipality Improves Drinking Water Distribution Reliability and Throughput with Dependable Pressure Measurement

RESULTS

- Improved water distribution reliability
- Increased water throughput
- Decreased operations and maintenance costs

The 10-year stability and 12-year limited warranty of the Rosemount 3051S provided the necessary reliability this municipality needed for its remote monitoring applications.

APPLICATION

Water Distribution Pressure

CUSTOMER

Municipality in Australia

CHALLENGE

This municipality was experiencing leakage and ruptures from their aging water distribution lines that carried drinking water to its end users. The water losses were often undetected and frequent enough that an on-line pipeline pressure monitoring project was undertaken.

Due to the maturity of the pipeline infrastructure, there was no electronic measurement and existing monitoring was carried out through pressure gauges. Without electronic measurement, real-time leak detection was not possible, and there were barriers for adoption. The proposed meter pits were located in inaccessible locations and were often subjected to flooding, making it difficult for maintenance and calibration. Also, because of the monitoring application using remote terminal units, optimized power consumption by the electronic measurement was necessary.

The absence of electronic pipeline pressure measurement lead to several negative business impacts for this municipality. Due to the inability to remotely monitor pipeline pressure, the customer experienced lower reliability and throughput of water distribution from frequent pipe ruptures. In addition, high operations and maintenance costs resulted in routine measurement rounds and time spent troubleshooting the pipe leak locations.

Rosemount 3051S

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SOLUTION

The customer solved their frequent pipeline ruptures with the Rosemount 3051S Pressure Transmitter. The 10-year stability and 12-year limited warranty of the 3051S provided the necessary reliability the municipality needed for its remote monitoring applications. The hermetically sealed body combined with an IP 68 rating enabled the customer to install the transmitter in the meter pits, which were periodically subject to water flooding conditions. Lastly, the turn on time of the Rosemount 3051S met the customer requirements for low battery consumption on the remote terminal unit.

By having visibility of the water distribution pressure, this customer improved the reliability and throughput of their aging water distribution network. Pressure monitoring with leading technology enabled the customer to detect pipe ruptures more quickly and compensate the pressure drop through alternate routes. Finally, having dependable pressure measurements also reduced operations and maintenance costs by eliminating manual measurement rounds and decreasing time spent troubleshooting.

RESOURCES

Rosemount 3051S Series of Instrumentation
http://www.rosemount.com/3051S

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
Blegistrasse 23
P.O. Box 1046
CH 6341 Baar
Switzerland
Tel +41 (0) 41 768 6111
Fax +41 (0) 41 768 6300

Emerson FZE
P.O. Box 17033
Jebel Ali Free Zone
Dubai UAE
Tel +971 4 811 8100
Fax +971 4 886 5465

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

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