Timely Compliance to State Regulation Made Possible By Smart Wireless Solution

RESULTS

- Achieved state regulatory compliance on time
- Minimized environmental impact
- Lowered installation costs
- Reduced project time



APPLICATION

Remote monitoring of outlet gas pressures from four district regulators at a company property

APPLICATION CHARACTERISTICS

- Devices are 150 ft. (46 m) from the communication's building
- SCADA System is about 60 miles (97 km) from the site

CUSTOMER

Unitil Corporation / Northern Utilities

CHALLENGE

The site required a quick installation solution to comply with state regulatory standards. The outlet pressures of the four district regulator stations at this site needed to be monitored by the SCADA System. The existing RTU and communications were in the DAC building which was 150 feet away from the 4 regulator stations. The DAC building was also separated from the four stations by a busy driveway, which was shared with an LPGA trucking Company.

Digging was a complicated and expensive option and overhead wires could not be used. In order to comply with a state regulatory mandate, the additional pressure data from this site was necessary. A monitoring solution had to be implemented quickly. Installation of conduit and cabling would have required trenching in hazmat soil, which would have been difficult to implement in the winter months. In addition to a potentially difficult installation, this project needed to be completed prior to the end of the calendar year to be in compliance.

The Smart Wireless Solution enabled the natural gas LDC to meet regulatory requirements on time in an extreme environment.



Rosemount 2051 Pressure Transmitters with Smart Wireless THUM Adapter



For more information: www.rosemount.com



SOLUTION

A Smart Wireless solution was put in place quickly and without the need to hard wire the additional measurement points which eliminated the need for trenching. Rosemount 2051 Pressure Transmitters with Smart Wireless THUM adapters attached were installed along with a Smart Wireless Gateway in one day's time, and the pressure data was sent wirelessly to the Smart Wireless Gateway. After the Gateway was configured, it was connected directly to the existing frame relay communications line existing in the DAC building. From there, the data was easily integrated into the existing SCADA Host System. The entire System was tested and tuned in three days. Now all of the required data is consistently received by the SCADA System, displayed on control screens, and logged into a historical database.

The equipment was installed by Unitil's regulator group and Dan Joubert of SCADA Network Services performed activation of the Emerson Smart wireless system and integration of the data into the SCADA System.

The wireless solution reduced project cost and time, and overcame the logistical challenge of trenching in hazmat soil and winter construction costs. The customer now has pressure data for these four regulator stations in their SCADA System and no longer relies on paper chart recorders at this site. This important information, now in the SCADA System, allows Unitil's Gas Controllers the ability to perform quicker troubleshooting of the equipment on site and provide faster response to their customers with changing system conditions. The data is also captured in the SCADA historian, where it provides a permanent record and helps the Engineering group plan and develop for future system needs. Another important advantage is growth, as Unitil now has the ability to transmit additional data from other areas on this site using the existing Smart Wireless Gateway System.

RESOURCES

Emerson Process Management Oil and Gas Industry

http://www.emersonprocess.com/solutions/oilgas/

Emerson's Smart Wireless THUM™ Adapter

http://www2.emersonprocess.com/en-US/brands/rosemount/Wireless/THUM-Adapter/ Pages/index.aspx

Rosemount 2051 Pressure Transmitters

http://www2.emersonprocess.com/en-US/brands/rosemount/Pressure/Pressure-Transmitters/2051-Pressure-Transmitters/Pages/index.aspx

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