PROCESS INSTRUMENTATION

Battery operated magmeter **provides reliable flowrate measurements in remote areas**

usa.siemens.com/mag

Situation

A municipal water district in the Southwest U.S. provides drinking water and wastewater treatment to a large distribution area. It currently serves the daily water needs of over 1.6 million people with a treatment capacity of 550 MGD.

The district had been using a different measurement technology supplied by a competitor as a basis for billing their customers. It was installed on their outbound transmission line. The district had questioned for some time, the accuracy of the readings and, after testing, they found that the billing amounts were too low.

SIEMENS

The battery-operated SITRANS F M MAG 8000 flowmeter provides the flexibility to install a reliable water meter virtually anywhere without sacrificing accuracy or performance. No line power is required. The battery-operated water meter is specially engineered for stand-alone water applications such as abstraction, distribution network, revenue metering and irrigation.

The Mag 8000 meter is a higher accuracy flowmeter that requires no maintenance and no power connection. It can be totally submerged with no effect on its operation.

Challenge

The water district wanted a flow meter that was accurate, needed minimal maintenance, and did not require direct power to the unit. The remote vault where the flow meter was to be located was susceptible to flooding, and there was no sump pump available inside the vault that contained the 8-inch pipeline. The flow meter needed to withstand submersion.

Solution

The local Siemens sales representative suggested the water district install a Siemens SITRANS FM 8000 battery- operated magmeter to replace the older competitive unit on the 8-inch pipeline. The Mag 8000 instrument is a higher accuracy flow meter that requires no maintenance and no power connection. It can be totally submerged with no effect on its operation. After installation, the district found the actual outbound flowrates to be much higher than the older unit was recording.

The Mag 8000 meter is an accurate, cost-effective solution that has a short pay-back period. The revenue increase alone will rapidly pay for the new installation. Already a Siemens level instrumentation customer, the district is now considering Siemens Mag 8000 flow meters for other remote locations to use for billing purposes and for check meters. They also use Siemens pressure transmitters and other types of Siemens flow meters on various applications.

Benefits

Improved accuracy – The Siemens Mag 8000 flow meter has an accuracy of 0.4% compared to the older competitor's unit that showed an accuracy of between 3-5%.

Time savings – The battery operated Mag 8000 meter was quickly and easily installed. No need for power lines or even a solar panel at the remote site.

Cost savings – The newly installed flow meter pays for itself in a short time just from measuring the correct flowrates for billing purposes.

Maintenance-free – The Mag 8000 battery operated flow meter is not damaged by submersion and needs no scheduled maintenance. The battery need not be replaced for 6 years.

Recent Improvements – Since the installation of the Mag 8000 at this location, Siemens has added a 4G IIoT option that allows our customers to send the data from the magmeter to the cloud and see the critical information of any Mag 8000 they own in a web based format to allow monitoring of information and/or product configuration. In addition, the addition of the stand alone Siemens Serve IQ digital app allows remote monitoring and notifications to any sanctioned user via, phone, tablet or PC.

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