Pipeline Midstream Customer Increase Production with an Automated Leak and Corrosion Monitoring Solution from Emerson's PACSystems

RESULTS

- 13% improvement on false leak detections
- $3 Million of annual cost savings of eliminated planned maintenance

"Leak "false alarms" were slowing down production at a time when we need to ramp up, Emerson's RX3i controls' modular design and flexibility enable us to recognize leaks and initiate pipeline shutdowns automatically."

APPLICATION

Corrosion Monitoring and Leak Detection for Pipelines.

CUSTOMER

The customer is a Pipeline company, located in Tulsa, Oklahoma, focuses on oil & gas transportation, specializing in pipeline, storage, terminals and distribution.

CHALLENGE

The customer's original pipelines were installed in the 1960's. Many sections of the original buried pipelines were unable to be located. This made pinpointing natural gas leaks and corrosion a significant challenge for the customer. Their inability to monitor leaks and corrosion within the pipeline led to time intensive maintenance and repairs which caused additional delays in production when leaks would occur. The older infrastructure also increased the inaccurate faulty leaks (false alarms) which led to further unnecessary inspection costs and delayed servicing real maintenance issues. At the same time, the company was experiencing double digit growth which necessitated increased production efficiencies and throughput while simultaneously expanding their pipeline grids. Their priority was interoperability across their grid; as additional grids were installed, their legacy systems needed to seamlessly integrate with their more powerful, modern control systems.

For more information:
www.emerson.com/PACSystems

EMERSON

SOLUTION

Emerson's PACSystems CPL410 edge controller was able to monitor the corrosion parameters and advise valve shutdowns automatically, thereby reducing any lost production. Emerson's PACSystems were chosen for their modular design, functionality and scalability in order to replace the existing obsolete control systems. They were also able to reduce false warnings for leaks. Additionally, the edge controls were a proven technology and provided a high availability solution which allowed them to expand their grid without reducing production during installation. The QuickPanel+ HMI display was used for the system monitoring and display at the machine; this, along with the edge controls, were packaged in a standard cabinet along the pipelines to ensure seamless integration on site and ensure minimal downtime.

RESOURCES

www.emerson.com/pacsystems

www.emerson.com/edge-computing

https://www.emerson.com/en-us/automation/control-and-safety-systems/industrial-automation-controls-iac/oil-gas

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00830-0100-0012