

Korsnäs Gävle meets environmental requirements using Smart Wireless technology

RESULTS

- Compliance with environment monitoring legislation
- Reduced installation costs
- Fast implementation of additional measurement points

APPLICATION

Leak detection

CUSTOMER

Korsnäs Gävle –board and paper manufacturer, Sweden

CHALLENGE

Environmental legislation required that water from heat exchangers must be carefully monitored for contamination before it is returned to the sea. Failure to comply could require production to be stopped at the plant. Monitoring electrical conductivity is a standard detection method for leaks of acids, bases, or salts since any leak is easily detected using a conductivity sensor, but the existing I/O supporting these devices was to be removed in a renovation project. An alternative way to transmit the required measurements to the main control room was needed.

A second application required Korsnäs Gävle to establish continuous monitoring of effluent in aerated basins and ponds. New sensors measuring pH, dissolved oxygen, and water temperatures had to be installed and connected to the central monitoring system, but there were no available cable runs and the closest available wired connection point was more than 500 metres away. Installing new cabling would present a considerable challenge and cost roughly €200/metre.

SOLUTION

Korsnäs Gävle implemented Emerson's Smart Wireless technology, which is based on the IEC 62591 (*WirelessHART*®) standard. A Rosemount Analytical 6081C wireless transmitter connected to a conductivity probe monitors the water from the heat exchanger and transmits the measurement data via a Smart Wireless Gateway to the existing control and data acquisition systems. This new solution ensures compliance with the environmental monitoring legislation.



“Less than two months after ordering the Smart Wireless devices, the whole system was fully operational. That is very fast for implementing 30 new measurement points. Now that the network is in place, we also have found that adding additional devices becomes very simple.”

Peter Hallenberg

Project Leader Process Automation
Korsnäs Gävle

Six Rosemount 848T wireless transmitters were installed to relay data from 22 analytical sensors monitoring the aerated basins and ponds. These new transmitters provide the necessary data to meet the environmental requirements.

With the Smart Wireless network established, Korsnäs Gävle was also able to install seven Rosemount 648 wireless temperature transmitters to monitor temperatures in the water pits supplying water to aerated basins and ponds. A further eight Rosemount 3051S wireless pressure transmitters are to be implemented to identify plugged filters of two wood chip digesters within the main processing section of the plant.



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