SENSING EXCELLENCE

Multisensor

CASE STUDY

Monitoring of Water Intake from Panama Canal

Application Dossier: No. IX

Application

Monitoring of Water Intake from Panama Canal

Product

MS1200, Profibus

MS1200
Oil in Water Monitor

Application

Monitoring of a water intake to detect oil contamination.

Customer

Panama Canal.

Problem

The constant transit of vessels results in a high risk of collisions with the banks or structures of the canal and produce an accidental spill of oil. This would compromise the supply of potable water for consumption and general uses in the Canal Zone.

Product

MS1200, Profibus.

Installation Facts

The Canal Authority decided to use the MS1200 system as an early warning system in case of contamination, thus preventing the suspension of the service, high maintenance costs and cleaning tasks that could arise from an oil spill. The instrument is installed in a pumping station about 30 metres from the banks of the Canal from where the water is taken.

The water is analysed for the presence of oil and VOCs every 15 minutes and if there is an increase in the level, an alarm is activated, and an action is taken.

The environment is constantly warm and humid, which is very hostile to all electronic equipment.

The MS1200 has performed reliably since installation.

Photo showing the MS1200 installed in the Pump Station. The unit is connected to a SCADA system (Ethernet) using the Profibus Protocol (TCP / IP), which records the data and, in case of an accident, activates the alarms that shut off the suction pumps.

Did you know?

The Panama Canal relies on three key water treatment plants to meet the diverse needs of canal operations and local communities: the Mount Hope, Miraflores, and Federico Guardia Conte (Chilibre) plants.

The Mount Hope Water Treatment Plant, established in the early 20th century, is vital for providing drinking water to the Gatun Locks, the city of Colón, and neighboring areas. Its strategic location and robust infrastructure have made it an essential part of the canal's water management system, ensuring the consistent supply of clean water in this critical region.

The Miraflores Water Treatment Plant, operational since 1915, plays a dual role in supporting canal facilities and supplying potable water to approximately 200,000 residents of Panama City. Known for its resilience and modernization, it continues to adapt to the growing demands of the region.

Meanwhile, the Federico Guardia Conte Water Treatment Plant (commonly known as the Chilibre Plant) sources water from Lake Alhajuela and serves as a primary water supplier for Panama City's metropolitan area.

Together, these plants exemplify the Panama Canal's commitment to sustainable water management, balancing operational needs with the well-being of surrounding communities.

Why Multisensor?

The customer needed a contactless system working in a very high humidity environment.

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For more information

Visit: www.multisensor.co.uk
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Front Image Credit: David Stanley, Gatun Locks

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Multisensor Systems is a developer and supplier of Water and Gas Analysers specialising in oil in water and hydrocarbon analysers, oil in water detectors, VOC monitors and THM analysers based in the United Kingdom.

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CHANGELOG

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