Solid AT Offers Remote Web/GSM/GPRS Monitoring Solution in Waste Water Management

Solid's **Smart***Scan*® 50 provides non-contact, maintenance free ultrasonic solution with remote monitoring for problem prevention and effective sewer management in one of Israel's wastewater plants.

The problems

Holon municipality sewage system, located in the center of Israel, is an old underground network. The wastewater collection system consists of buried pipelines which convey the wastewater by gravity to the water treatment plant. The problem is that these wastewater components cause frequent blockages in the ditches. The blockages can happen at any given point without a warning resulting in an overflow into the streets. Rainy weather or litter blocking the drainpipes entering the sewers can cause the water level to rise, leading to damage to the surrounding area.

This causes great disturbance to the Holon area residents as well as frequent costly alerts to the Holon wastewater department. The authorities have to respond immediately to such incidents.

When considering the right technology to monitor the level in their sewage system, the Holon sewage department engineers had to take into consideration factors that could possibly mislead contact level gauging devices. These factors included a rise in humidity in certain hours such as early mornings when people are using hot water. Contact level gauging devices would require high maintenance and could therefore not be a cost effective solution.

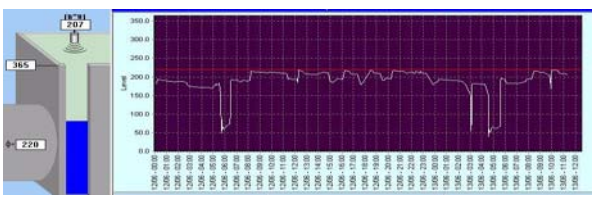
Another aspect that had to be considered was the possibility of overflows in the joint network caused by rain water. Also non-contact devices without approvals for submersion could become damaged or ruined in the current sewage system.

The solution

Solid AT installed several SmartScan 50 devices with 50Khz sensors as part of a successful solution. The installation is at the checkpoint ditch, attached to the internal ceiling. The distance from the sensor to the ditch bottom is 2.5m. All sensor cables are connected to the control units, placed in a control closet in about 15 m from the checkpoint ditch. The information regarding the sewage level is transmitted to the municipality control center via cellular technology. This technology is based on SolidAT and partner solution for remote WEB/GSM/GPRS monitoring. The customer enjoys online monitoring via regular web access or via a mobile phone. The customer has defined trigger levels that generate SMS messages allowing the municipality team to detect the exact place of the problem and fix it prior overflow.

Summary

The SmartScan 50, non-contact gauging device was found to be the most suitable device to this environment. The 50Khz glass reinforce epoxy is highly resistant to the methane environment. Having IP67 rating, the sensor is effective to immersion and provides reliable measurement afterwards. The information is being monitored 24/7 via a website, and SMS messages send alerts when the level reaches low/high limits.



You can Measure the Solid Benefits…

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