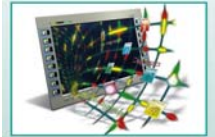


Porta Westfalica Sewage Treatment Plant

The waste water management plant in Porta Westfalica, Germany, which includes the Möllbergen sewage treatment plant, is one of very few facilities of this type to be certified according to ISO 9001 and DIN EN 14001. Transparent operator access to all important data is just one of the reasons this certification was awarded.



Vertical Data Integration in Waste Water Management

"The Möllbergen sewage treatment plant collects waste water from four districts to the south of Porta Westfalica," explains Martin Damke, head of the department responsible for ensuring the smooth operation of the plant. The fully biological Möllbergen sewage treatment plant services 12,000 inhabitants and was built around 25 years ago. The ongoing modernization and expansion of the sewage treatment plant have considerably improved the water quality of the river Weser.

Application

In the course of modernization, the ventilation technology, prepurification, sludge draining systems, and electrical and automation technology have been renewed. This includes remote monitoring of the substations and a direct connection between the automation and the SAP system.

"The aim of the SAP connection is to provide maintenance during runtime," explains Damke.

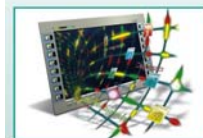
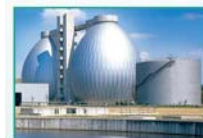
Both sewage treatment plants can be operated and monitored in the control room via the Microsoft-based multitasking process control system. "In addition to the open Aucoprovis process control system from Aucotec, it was also extremely important for us to use a bus system based on open interfaces," adds Martin Damke. "Following the excellent success of our sister sewage treatment plant in Nammen, we again chose to use the INTERBUS fieldbus system."

Solution

At the time, a PLC and INTERBUS ST modules were being used in Nammen. "An S7 PLC and INTERBUS were planned for Möllbergen two years ago," explains Antonio Algarve from iPATEC. However, he recommended the use of a Phoenix Contact open, IEC 61131-3-based RFC 430 Remote Field Controller instead of the PLC.



Porta Westfalica/Möllbergen sewage treatment plant



AUTOMATIONWORX

The waste water management engineers were more than happy with this recommendation.

The solution was then extended to include two modern, distributed ILC 200 IB Inline Controllers and corresponding Inline I/O modules. "Analog and digital signals such as the current consumption values for units, pH values, temperature, and oxygen content are looped in and transmitted to the control system via INTERBUS," explains Dirk Hopmann, Waste Water manager at the Möllbergen sewage treatment plant.

One Inline Controller is installed directly in the sewage treatment plant and another is installed in a remote pumping station, which is connected to the control room via an analog telephone line. Here, Acron Connect provides remote control based on open software.

"Until recently, a few proprietary components were still being used, but now only open programming interfaces are used in our sewage treatment plants," notes Martin Damke. "This openness makes us independent of suppliers. Everything is interchangeable in our solution." The INTERBUS system provides openness at field and control level.

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