

Project general contractor, electromechanical equipment for the Ipsach rainwater basin

General repairs to the rainwater basin in Ipsach

Requirement

The Association for Sewers and Waste Water (VKA) in Nidau is responsible for the waste water treatment plants from Port to Moeringen on the southern banks of Lake Bielersee. The Association manages several rainwater basins and pumping station.

The Ipsach rainwater basin was built in the early 1990s. The unique feature is that this is a rainwater basin in a connected system. The receiving water cannot enter the lake by gravity but must be pumped into Lake Bielersee by four pumps of a combined discharge of 840 liters per second.

The pumping station was repaired in the winter of 2011/2012.

Implementation

General contractor status

The customer has a partner to contact directly throughout the construction project; that partner can pass on the customer's requests professionally to the subcontractors.

Stebatec AG, with their subcontractors, provided a new ventilation system in the explosion zone 2 (rainwater basin) and in the pumping station. The drainage pump was replaced, together with the pressure pipeline. The screen rake with electric motor was replaced completely and is now powered hydraulically.

The manholes were optimized to permit unrestricted entry and provide ample space in underground rooms.

Stebatec AG was the managing contractor, from the electric planning and the construction of the control cabinets to the installation, calibration and power installation.

It was important that the operation of the rainwater basin continued almost without interruption during the assembly and installation of the equipment.

Explosion-zone lighting fixtures were installed in the rainwater basin and the pumping station to permit VKA personnel to carry out maintenance in the equipment under easy conditions.

Measuring equipment

For exact measurement of the water volume discharged towards the Biel region waste water treatment plant, a new measuring point was set up. A new measuring shaft was built, tailor-made to the Stationary system.

The purpose of the Stationary DN 300 is not only to measure the water volume released to the waste water treatment plant but also permits fine adjustment of the setting of the lowering contactor.

Remote link-up

The system can be monitored from any PC via a remote internet link. The measuring data can be monitored from any part in the world.

Control equipment

The STEBATEC control modules are standardized and tried-and-tested functional building blocks which are all compatible with the ARAbella process control system and also with all data communication systems from STEBATEC. In addition to standard modules, specific customer requirements were implemented under special software design solutions.

Touch compatible

The visualization system of the Nidau VKA was developed specifically for local touch panel control. Every button or key is adapted for simple and easy handling.

