



Pump Users
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Technical Paper

Wastewater pumps

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Experiences with speed-controlled operation of sewage pumps at the Berliner Wasserbetriebe

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Summary

One of the Berliner Wasserbetriebe (BWB) current projects concerns the full automation and central monitoring of wastewater pumping. This project involves changing over 200 wastewater pumps from constant to variable operating speed. This requires adjusting the pumps and Electrical instrumentation and control (EI&C) technology to the new requirements.

Apart from the expected pumping station operational faults, unexpected faults caused by previously unknown phenomena also occurred as a result of the alteration works. These faults stand in the way of the planned goal of fully automatic, reliable and efficient operation of the wastewater pumping. In addition, manual troubleshooting causes an unwanted, high personnel placement.

The "Wastewater Workgroup", a multidisciplinary team of experts from the three fields of expertise: operation, research and design, was formed to jointly analyse the background premises and to draw up solutions.

The chosen approach, identified causes and boundary conditions as well as initial solutions for handling these wastewater pumping station operational faults are the topic of this lecture.