2012-07-10 - New, compact softstarter simplifies remote control of wastewater pumps at the Water & Wastewater (W&WW) works in Höganäs (Sweden)

When the team at the W&WW works in Höganäs decided to introduce remote controlling of their wastewater pumps they demanded the highest requirements for all components, including softstarters. After having performed extensive field tests, they decided to invest in the new, compact softstarter PSE30 from ABB.

They wanted to become more efficient in the operation of their approx 60 pumping stations. Instead of having to visit a station when alarm was triggered, eg a tripped motor protection, they wanted the possibility to directly see what had happened and be able to decide if the fault could be fixed remotely or if they had to go to the pumping site.

“To be able to control the pumps remotely by radio communication, we needed to upgrade the automation cabinets in the pumping stations and among other things, install radio modems, plc and new softstarters” Alf Svensson, electrician at the W&WW plant in Höganäs community says. “The cabinets were old and inside there was little space. Also the wastewater plant is an aggressive environment with hydrogen sulphide damaging printed circuit boards (pcbs) and electronics” he adds.

The community of Höganäs has an agreement with Elektroskandia and this lead to contacts with ABB, who had recently launched the new softstarter PSE30, developed to fit pumping applications.
A major advantage with ABB softstarter was the small and convenient size – it was roughly half the size of other brands.

A major advantage with this softstarter is the small and convenient size – it is roughly half the size of other brands. Also the pcbs are coated to better resist corrosive gases.

"Previously we had other softstarters, without the pcbs coated, but they lasted only a couple of years and sooner or later various faults appeared" says Alf Svensson.

Höganäs community decided to run field tests with PSE30 on two of their pumps – a test with very good result. "It has been working very well. In each pumping station we have two pumps that are run in shifts and the first softarters have now been in operation since November 2010. They have both been operating 200 hours each and made more than 3500 starts without any problems."

This makes us more efficient and we will therefore, step by step, upgrade all stations to remote control

ABB’s softstarter has torque control which reduces pressure peaks and eliminates water hammering.

This means less service and maintenance costs and extended life time for the equipment. The built-in protection against running dry senses if the load is lost and sends a signal. This provides continuity of operation and reduced damages on the pump.

"Up to now we have upgraded four of our pumping stations where we have installed two PSE30 softarters in each station,"Svensson says. "The remote control is working very smoothly. If today we receive an alarm, the person on duty, wherever located, can immediately see what has happened and decide on immediate action or to deal with the problem later. Sometimes maybe it is enough to use only one of the pumps for a day or two. With this new system we also have better follow-up, since we can check event history for each pump. This makes us more efficient and we will therefore, step by step, upgrade all stations to remote control" Alf Svensson finishes.

ABB AB
Control Products
Low Voltage Products
www.abb.com/lowvoltage