

# Allan Hansson on Cactus

*For just over four years, Tekniska Verken in Linköping has been extensively modernising the electrical and computer systems at its three water supply and sewage plants. First was the Nykvarn sewage plant, followed two years later by the Berggården water-purification plant which received a new control system. Last but not least came Råberga water-purification plant. All three plants now have monitoring systems from Cactus Automation.*

Allan Hansson is departmental head at Tekniska Verken.

## **Why exactly did you choose Cactus for all three plants?**

"We went about the whole process very meticulously. When we began planning the new monitoring system, we selected four suppliers who each tendered a turnkey solution. Cactus simply had the best overall concept. They not only had competitive hardware, they could also provide a good training programme for our personnel. Of course references are also important in a project of this scale, and Cactus had a long list of those as well."

## **What does the new monitoring system comprise?**

"That differs from plant to plant. For example, we chose a CSX system for central monitoring at Råberga and Berggården. The local



"We've had plenty of time to get to know each other. Three plants in four years has placed high demands on coordination and collaboration. What's made this particular project even more complex is the fact that we've been completely renovating our electrical systems at the same time."

sub-stations have compact C60s, C50s and C10s. The system is Unix-based and has PC terminals in the labs and offices and at the main monitoring centres."

## **And at Nykvarn?**

"At Nykvarn we've replaced an old control system which dates back to the early 1980s. The old system consisted of a large and a small system, but it didn't cover the chemical stage. We are now working with a single system which does monitor the chemical stage. Our new system

comprises a server, five PC terminals used as operator workstations and eight sub-stations."

## **What form does the equipment for the 24-hour monitoring take?**

"At the Nykvarn plant, for example, we have a portable colour-screen terminal. The personnel on duty outside normal working hours can use this to rectify errors and control certain parts of the process. Emergencies are communicated via Mini-call Text, a text paging system."



The plant at Nykvarn is one of the three water supply and sewage plants at Tekniska Verken which has a new monitoring system supplied by Cactus Automation. The Nykvarn plant succeeded in reducing nitrogen in built-up wetlands at an early stage. Some 200,000 residents of Östergötland region have their water treated at Nykvarn.

**Can you give any examples of the advantages of the system?**

"There is one advantage in particular that more and more people are coming to appreciate. Now we can programme the sub-stations from a central point such as the control room. It is no longer necessary to go out to the exact location and stand and re-programme the system, we can do it from the comfort and peace of our new control room."

**I suppose installing new systems has meant quite a change for the personnel?**

"The new systems are considerably different from our old ones. The new ones are easier to work with,

solve more problems and can also provide us with on-going recorded information. So it has been quite a big change for our personnel, but very educational at the same time. Working together with Cactus we have provided a training programme from which everyone has benefited."

**Do you do your own plant mimic displays?**

"The mimic displays are a fusion of the old with the new: Cactus have helped us produce new drawings from original CAD sketches done by us. The personnel are really happy with the new system. User-friendliness was one of the reasons we went with Cactus."

**And how was it working together with Cactus?**

"We've had plenty of time to get to know each other. Three plants in four years has placed high demands on coordination and collaboration. What's made this particular project even more complex is the fact that we've been completely renovating our electrical systems at the same time. We've replaced our switch gear and instrument cabinets, as well as cables, junctions and other equipment. And we've been able to do it all without downtime, and that's a recommendation if ever there was one."



Cactus Automation AB. A VBB company.  
 Kroksläts Fabriker 30, S-431 37 Mölndal.  
 Tel. +46 31 86 97 00. Fax. +46 31 86 97 24.  
 E-mail: info@cactus.se