MARITEX A/S

From cod-liver oil to DNA with PlantWeb at Maritex

User friendliness and the capability to handle fast changes were central criteria, when Maritex selected PlantWeb field-based architecture to automate its process equipment.

Maritex was established 1994 beyond the Artic Circle at Sortland in Vesterålen, Norway, by parent company Aarhus Olie AS, Denmark, to get access to fresh raw materials in the North Norwegian fish realm. At the factory, fresh raw material, consisting of fish internal organs, are processed into marine oils. The oils are then used as ingredients in health foods. One example is Omega-3 margarine. In addition, advanced products are extracted, like DNA salts from cod milt, enzymes from cod stomach, and peptone, which is one of the building blocks in proteins. Research to establish new products is ongoing, so the production process must be flexible to adjust to these continuous changes.

Maritex chose the PlantWeb field-based architecture to control a new process, which included an evaporator. The solution included the DeltaV system, which uses FOUNDATION fieldbus to communicate with Micro Motion coriolis mass flow meters, and Rosemount pressure-, temperature- and pH-transmitters. In addition, existing field equipment, based on traditional 4-20 mA technology, was connected to the DeltaV system.

Fast adaption to changes important

"We found the solution very user-friendly and have in fact been able to do the configuration of the second evaporator ourselves," said Maritex Plant Manager Viktor Johnsen. "This attests to the system's ease of use, while handling everything from monitoring the tank farm to advanced processes control, which was the impression I got the first time I saw the system at our parent company Aarhus Olie. Continuous changes are taking place in our process equipment and for that reason it is important that we can quickly adapt the automation system to them. Our experience so far has also shown that the production has become smoother. Now we are able to document our production better, based on the features built into DeltaV."

Johnsen continued, "In the long run, DeltaV will take over the control of all our existing process equipment, and we will continue to use PlantWeb with FOUNDATION fieldbus technology where ever we can. We are presently installing a new alcohol-based process module, which will use fieldbus. There are so many possibilities with this new technology, that we want our employees to learn as much as possible about it through training courses, with the goal of mastering this important tool as well as possible."

Proven solutions

It's easy to understand how there could be skeptics to using new technology based on FOUNDATION fieldbus in a plant located so far away from the supplier, and with few engineers working with traditional automation in the neighboring area. Maritex did not even have its own electro- or automation department. "The long distances have not been any problem," says Erik Skov, Fisher-Rosemount Denmark, who together with Aarhus Olie, configured the first evaporator. Using PCAnyWhere, I have been able to do remote configuration modifications, of the DeltaV system on-line. Furthermore the integrated program for Asset Management Control, AMS Inside, was very beneficial during commissioning, when we got error messages from the field-based multivariable 3244.
temperature transmitter. The diagnostic screens showed that the transmitter had been set up with the wrong sensor input. By changing the configuration from 1 pc 4-wire, to 2 pcs 3-wire pt-100 elements, we eliminated the error. The PlantWeb solution has now been well proven, with more than 1000 systems delivered world wide, and with more than 8 million operational hours so far."