

Major Natural Gas Liquid (NGL) Fractionation Plant Increases Production

A major NGL fractionation plant added a heater with supporting distributed control system (DCS) and safety instrumented system (SIS) configuration along with high performance graphics in order to increase production.

Objective

The customer needed to add another heater to increase production for their facility. They partnered with MAVERICK to develop DCS and SIS programming and high performance graphics for the new heater. There was a tight deadline and a small window of opportunity for implementation of the heater.

Results

The DCS, SIS and high performance graphics development work was extremely successful and completed on time. MAVERICK was able to configure the programming and graphics in an efficient manner, which allowed the customer to keep to their tight schedule and move on the next stage of the project.

Solution

Since this was a multi-platform project using Modicon and Honeywell, MAVERICK was able to use multiple in-house subject matter experts to ensure the highest quality work.

In order to maximize operator acceptance, it was important that the new graphics resemble the existing plant graphics as much as possible while also incorporating high performance graphics best practices.

Graphics were created and / or modified using Honeywell Experion Display Builder. Piping and instrument diagrams (P&IDs) were referenced to create the new graphics as accurately as possible. The static graphics were then reviewed with the plant engineer to ensure operators would have an easy transition.

Since the new heater was very similar to an existing heater, the team used the existing heater as a model for developing graphics.

The MAVERICK team configured control points for the DCS system using Control Builder for Experion R311 / C200 DCS. Existing control points were used to develop all of the new control points so they would be in a format the plant engineers were used to seeing.



MAVERICK engineers developed control points for the SIS system using ProWorx NxT for Modicon Quantum SIS. Virtual machines were created to run an older version of Windows so the team was able to use the plant's older version of ProWorx.

All PLC ladder logic needed for the SIS was configured by the MAVERICK team.

MAVERICK was able to simulate the control points on a virtual machine to quality check the HMI and control programming.

MAVERICK validated all project documentation to find and help resolve discrepancies.

The cause and effect diagrams were reviewed and allowed the team to catch things that needed to be changed in order for the process to work correctly.

MAVERICK kept up with the fast pace of the project by holding weekly progress meetings with the customer. This made sure everything was headed in the right direction, and time was not wasted.

The addition of the second heater allowed the customer to nearly double its production rate.

The MAVERICK Difference

The MAVERICK team was able to complete the project in an extremely limited amount of time in order to fulfill the needs of the customer, while still providing a quality product.



A Rockwell Automation Company

MAVERICK Technologies, LLC

265 Admiral Trost Drive | Columbia, IL 62236 USA

+1.888.917.9100 | Fax +1.618.281.9191

info@mavtechglobal.com | mavtechglobal.com