

Chemical Manufacturer Adds Greenfield Unit Controlled by Honeywell® Experion™ to Recover Propylene

A major chemical manufacturer added a greenfield unit to recover propylene from two monomer-rich streams previously sent to the flare. They partnered with MAVERICK to design and implement control strategies and HMI displays.

Objective

The manufacturer previously sent two propylene-rich vent streams to the flare. The manufacturer partnered with MAVERICK to design and implement control strategies and HMI displays for a new greenfield unit constructed to capture, recover and return the propylene to the polypropylene reactor. MAVERICK also supported startup and operation.

Results

The team completed the project safely and on schedule. MAVERICK's efforts on the project impressed the manufacturer. MAVERICK added particular value by controlling costs while still delivering a quality product.

Solution

The MAVERICK team worked with process engineers to create a control narrative document and a DCS I/O list for the new process unit. MAVERICK used the control narrative to develop DCS control strategies. As instruments were added or removed, MAVERICK revised the I/O list to match.

MAVERICK conserved costs by using a team of less-experienced resources directed by a senior engineer to create HMI displays and DCS configuration. Using a cost-effective but larger team made it possible to meet the shortened schedule for loop checks.

MAVERICK used the I/O list and information from instrument specification sheets to create bulk build files. The team used these files to efficiently create the DCS configuration. This strategy reduced costs for the manufacturer and minimized manual configuration errors.

Customer personnel and MAVERICK engineers performed a factory acceptance test (FAT) for the dryer sequence logic. MAVERICK simulated the logic in an offline development system prior to implementing it onsite. This process incorporated improvements, tested changes thoroughly and reduced onsite startup time.

MAVERICK created most of the HMI displays and DCS configuration on a development server in the MAVERICK office. The team fully vetted the displays and control strategies for functionality and quality in this offline environment.

The MAVERICK team worked with the customer team to determine a final list of soft I/O points to be brought into the DCS from the compressor PLC. Consistent with the hard-wired I/O points, MAVERICK bulk built the configuration for these points, which promoted efficiency and quality.

The MAVERICK team supported loop checks from the instrument to the HMI display. The latest I/O list was used to track validated points and to document field issues. Once oriented on the work process, less-experienced engineers accomplished the task, and the manufacturer realized cost efficiencies.

MAVERICK team members supported the unit startup, both onsite and remotely. MAVERICKs traveled to site when needed, but provided troubleshooting remotely whenever possible. This flexibility allowed the manufacturer to stretch the remaining project budget.



The MAVERICK Difference

The MAVERICK team took advantage of opportunities to automate the DCS configuration work. This strategy conserved costs and ensured quality. MAVERICK leveraged senior engineer expertise to manage less-experienced resources and create value. The manufacturer appreciated MAVERICK's ability to control costs and still deliver a quality product.



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