

Large Grocery Retailer Upgrades Milk HTST In-Line Fat Standardization System

The customer needed to upgrade an obsolete milk standardization control system. This system was a “black box,” an outdated island of automation which was not integrated with their main control system. The customer opted for a fully integrated solution to tie in with their existing plant control system and to achieve visibility and transparency in their operation.

Objective

The customer partnered with MAVERICK to replace a proprietary milk standardization system with a system composed of off-the-shelf parts which fully integrates into their existing plant control system. This objective eliminates the need for costly annual service contracts to calibrate the existing OEM equipment.

Results

The installed system operated within the specified production requirements for all products and recovered considerably faster after a separator process flow disturbance. The prior system required five minutes to recover, while the integrated system recovered in 30 seconds. The faster recovery pleases operators and enables remote product changes at the main HMI control screen.

Solution

The new system fully integrates with the existing control system, including the milk separator operations. This approach allowed for an upgrade to controls and instrumentation without the need to replace existing process valves and piping.

MAVERICK installed a completely new control panel with remote I/O connected to the main control system by an Ethernet connection. Endress+Hauser flow meters were selected to connect to the Rockwell Automation® ControlLogix® system via Ethernet I/P and the standardized add-on-profiles in the ControlLogix programming software. This selection provided access to alarms and meter parameters through the main programming software.

New instrumentation was installed inline with the existing system. To minimize switchover time, new instruments were operational prior to activating the new system.



The project team tested the PLC code at the MAVERICK office during a factory acceptance test (FAT) prior to arriving on site. Plant operators participated in the FAT, so they assisted MAVERICK engineers and technicians in verifying the correct operation of the system.

Customer participation during FAT familiarized the operators with the screens and functionality of the new system before the project moved to site. Continued involvement during startup minimized operator training after system validation.

The new system was stepped through both production and clean-in-place (CIP) operations. Control loops were tested and fine-tuned. Once testing was complete, the operators ran the system in production.

A new fully integrated system allows the customer to trend product information in their existing historian.

The MAVERICK Difference

MAVERICK provided a system to give the customer full control, visibility and transparency in their milk standardization system. The customer gained the ability to troubleshoot and support their milk standardizing system utilizing reliable off-the-shelf parts.



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