Alon Relies on Honeywell’s Safety Manager to Meet Safety and Compliance Standards

“We needed a safety system that would help us meet the safety goals of the refinery and NFPA standards on a new heater we installed at the Big Spring refinery, yet still integrate with our other products and systems. Honeywell’s Safety Manager was definitely a fit for what we needed.”

Byron Lewis, Process Control Specialist, Big Spring Refinery, Alon

Benefits

Alon’s Big Spring refinery needed a way to protect and comply with a variety of strict safety standards and improve safety performance of its new heater system in the crude unit. After looking at several providers, Alon selected Honeywell’s Safety Manager and experienced the following benefits:

• Operated on-line 100 percent since installation without crossing any thresholds.
• Met strict burner management compliance standards of the US National Fire and Prevention Association (NFPA) for fire prevention and public safety.
• Integrated, single-view console with other products including Honeywell’s TDC 3000® control system and Experion® Process Knowledge System (PKS) platform.
• Implemented code to Alon’s specifications and customized single-view interface.
• Provided reliable testing and improved safety processes.

The Challenge

While installing a new heater in the crude unit, Alon needed to comply with NFPA codes and standards for a reliable safety shutdown system.

Alon had already deployed Honeywell’s TDC 3000 control system plant-wide. The new heater project included installing the Experion and Safety Manager systems to provide an integrated system.

In addition to complying with NFPA codes, Alon was looking to install a system that met all of the requirements for a fully redundant safety system.

Background

Alon USA acquired ownership of the Big Spring, Texas refinery in August 2000 when Alon Israel Oil Company Ltd. purchased FINA Oil and Chemical Company's U.S. fuels marketing and refining assets. In service for more than 75 years, Alon’s Big Spring Refinery produces 70,000 barrels per day, converting mainly crude oil from the Permian Basin and delivers products to markets from Ft. Smith, Arkansas to Phoenix, Arizona via owner-operated and third-party pipelines.

Today, the Big Spring refinery employs approximately 170 people, and has the potential to expand production capacity to about 75,000 barrels per day. Alon plans to expand its FINA and 7-Eleven gas station operations throughout the Southwestern U.S. and will tap that extra capacity as its marketing presence increases.
Solution

Safety Manager was installed in December 2004 and used for heater burner management. Safety Manager provides the shutdown of the heater based on monitoring the critical conditions of the heater as required by the NFPA. As part of its operator training, Alon used HMI web graphics to help explain certain thresholds. Since startup of the new heater in February 2005, the system has been on line 100 percent and no thresholds have been compromised.

“This heater unit was new to our Big Spring refinery and we wanted to use the newest technology to help monitor, as well as integrate with Experion and the rest of our systems,” said Byron Lewis, Process Control Specialist, Big Spring refinery.

“Honeywell implemented the code to Alon’s specifications and we were able to customize the interface.”

Installing Safety Manager on Alon’s new crude unit heater was very important since it carries about 40 percent of the crude unit heater load. “Safety Manager met all the regulations and safety requirements we had. Honeywell provided great support and met all our critical deadlines to improve process safety and operability,” concluded Lewis.