



The Bu Hasa NGL extraction plant is updating two of its natural gas liquid (NGL) trains with GE's Mark VIe platform and OptiComp Integration Compressor Control Suite software to integrate turbine compressor control with faster execution and start-up.

## Updating Processing Control

GE to supply new controls to GASCO processing plant

➤ The Bu Hasa NGL extraction plant, operated by Abu Dhabi Gas Industries Ltd. (GASCO), is updating its plant to increase processing capacity for its natural gas liquid (NGL) trains 1 and 2. Currently the plant produces 7200 tons of NGL per day.

To increase production, GASCO is replacing the turbine and compressor controls with GE's Mark VIe platform and OptiComp Integrated Compressor Controls Suite software.

Each train has three Dresser compressors (LP, HP and propane) driven by Rolls-Royce Avon gas turbines.

The new control system is being added to integrate turbine compressor control with faster execution and start-up.

A total of six Mark VIe systems were supplied for the Rolls-Royce turbines and compressors, along with redundant network and communication interfaces. The OptiComp software was developed to complement the control systems by offering compressor surge control,

process performance control, load sharing/balancing, auto sequencing and other auxiliary control functions.

The new controls offer the plant a common application library, advanced and redundant networking, unit troubleshooting, alarm management, trending, reporting and archiving.

At the heart of the Mark VIe control system is a single-board controller. It includes the main processor and redundant Ethernet drivers for communication with networked I/O and additional Ethernet drivers for the control network.

The I/O interface is rated for operation and accuracy at temperatures ranging from -30° to 65°C and features an ambient temperature sensor. LED lights are installed for power status and attention. They are Ethernet link-connected and communication active. The LEDs are for specific applications. A power supply provides a regulated 28 Vdc power feed to each I/O pack.

The controller operates between 0° and 65°C and doesn't require any cooling fans. The board is powered by an 18 to 36 Vdc, 12 watt source. It's rated for NFPA Class 1, Div. 2 applications.

The controllers have two Ethernet drivers for the control network to communicate peer-to-peer with other Mark VI, Mark VIe and EX2100 generator excitation controls, as well as operator and maintenance stations. The controllers can be synchronized between units or to a local or remote time source for plant-wide sequence of events monitoring, said GE.

System alarms for fault condition are time-tagged at frame rate in the controllers and transmitted to the interface alarm system. Alarms can be sorted according to ID, resource, device, time and priority. Data can be displayed in English and metric engineering units with a one-second update rate. 📍

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