



Project:	Khursaniyah Gas Plant	Contractor:	Bechtel / Technip	End User:	Saudi Aramco
Product:	Fuel Gas Conditioning Skids	Location:	Saudi Arabia	Year:	2006

Application

This contract was placed by the Bechtel/Technip Joint Venture (BTJV) for 3 off identical Fuel Gas Conditioning skids and associated equipment for use at the Khursaniyah Gas Plant in Saudi Arabia.

The end user was Saudi Aramco and all of the packages were designed and built in accordance with the Aramco SAES Specifications.

These skids were designed to provide the correct process conditions to use as fuel gas for the air pre-heater furnaces.

Description

OGS were responsible for the process and mechanical design whilst ensuring that the system would provide the correct quantity and quality of gas at a pressure of 17.4 psig to the fuel gas burners and 7.25 psig to the fuel gas pilots.

A local hard wired control panel was provided as part of the overall package scope which also allowed for manual control as defined within the client's specification.

Our system was also designed to interface with the plant wide DCS system via BTJV.

Scope of Supply

The 3 off identical Fuel Gas skids each contained the following main items:

- 1 off Pressure Control Valve
- 1 off Orifice plate and Orifice flanges to provide flow information
- 18 off Process Shutdown Valves
- 1 off Flow Control Valve
- 2 off Pressure Control Valves
- 15 off Pressure Gauges complete with 2 way isolating vents

- 1 off Flow Indicating Transmitter comprising pressure transmitter and 5 way isolating vents
- 5 off Pressure Transmitters

Challenges

Some of the challenges OGS faced and overcame during the execution of the project included:

- The project schedule was extremely short and all 3 skids were delivered within 20 weeks from purchase order placement as required by the client.
- Saudi Aramco engineering specifications are extensive and the main challenge for OGS was to ensure full compliance.
- Full piping stress analysis using Caesar II of all main process lines for the burners and pilots was performed. Process design was carried out in-house using ASPEN HYSYS.

