

## Relay Replacement System - Kuwait



safety solutions

oil & gas

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power & utilities

### Background

This project entailed the replacement of a relay based semi-automatic control and telemetry system which was destroyed during the Gulf War. The original scheme was installed in 1982. This controlled pumps, valves and auxiliary plant associated with "Mutla High" Desalinated Water Pumping, Chlorine Addition and Recirculation to Doha Power Station. The new DCS (Distributed Control System) was engineered and supplied through Kuwait Controls Company (KCC) for Kuwait Ministry of Electricity and Water (MEW).

### System Description

The system size was in excess of 3000 I/O with the DCS installed at Mutla High for control and monitoring the Mutla High, Mutla Low and Doha ground reservoirs. As sites were dispersed by 54kms (total), with site to site communications via NIM (Network Interface Modules), modems and Customer private lines. Private wire circuit amplification and equalisation is incorporated.

Interlock signals were routed via the telemetry to co-ordinate these operations. Dual Redundant Processing Units (DPUs) were used for plant I/O and sequence logic. Communications between these and the Operator PCs (Workstation HMIs) were by Industrial Ethernet. All plant information can be viewed and controlled from Mutla High, Doha and Shuwaikh National Control Centre.

### Why Serck

- Competitive
- Remote Control & Monitoring multiple sites
- High Reliability & Availability
- Process Understanding

### Customer Benefits

- Budget & Delivery aspirations fully met
- Asset Protection
- Centrally Supervised Distributed Control System
- Life Cycle Support



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