

Major UK Gas Provider

Inspec Solutions carried out works to upgrade an unmanned installations' existing obsolete process control system. The original Paragon 550 SCADA and Hasbury I/O allowed for both offshore and onshore control of the Normally Unmanned Installation (NUI). As the original system was commissioned in the early 1990s with increasing difficulty in obtaining spare modules, it was highlighted as a potential reliability risk to the Business.

With minimal documentation of the existing process, Inspec Solutions reverse engineered the existing system control philosophy. Project complexities involved overcoming communication interfaces to existing and obsolete systems such as the ESD, and Fire & Gas system. Inspec Solutions also ensured the systems communicated back to the onshore gas terminal, whilst carrying out commissioning activities and maintaining Fire & Gas coverage throughout the process.



The major works included.

- Upgrading the existing obsolete Paragon 500 system to a Rockwell Automation ControlLogix solution and associated FactoryTalk SCADA
- Design and supply of new hardware to be housed within existing cabinets as offshore installation space is at a premium
- Interface to existing systems including a GEM-80 generator set, Regent ESD and Fire & Gas, FloBoss metering and communications links to onshore
- Simultaneous installation and commissioning of the new hardware and software, offshore and at the respective onshore gas reception terminal, whilst minimising modifications to existing electrical power and control cable infrastructure to reduce disruption on the installation and the length of the shutdown period.

As part of the upgrade, improvements were made to the systems which included.

- Increased system functional availability through PLC Controller and SCADA Redundancy.
- Improved system diagnostics via inbuilt and manually coded fault detection. In most aspects this fault detection delves to the I/O channel level resulting in minimal downtime.
- High quality dynamic graphical displays adhering to the latest industry standard recommendations for designing human machine interfaces for process automation.

- Improved security through dedicated accounts and user role-function account management/features.
- Alarm system rationalisation in-line with the clients' current standards for alarm handling and visualisation.
- Self-diagnostics and self-monitoring of the state of safety critical operations

The project was executed, installed and commissioned in 2019, meeting all deadlines with offshore commissioning being carried out within the planned shutdown periods.

The result of the upgrade provided the Customer with a modern well documented system, allowing for improved operations, increased process visibility to plant operators, enhanced availability, and a reduction of operational and maintenance costs.

