Technical Description

Across several pharmaceutical production and research plants in the UK, we have provided systems for both safety and control.

These safety systems were complex and required nitrogen purge interlock logic to enable successful inerting of the chemical reactor that would otherwise disrupt the chemical reactions taking place within.

Our involvement in a chemistry pilot plant included producing the scheme design covering the engineering refit planning, cabling and loop design for the CPP Modules upgrade. The distributed control system we supplied comprised of 11 control panels, one for each configurable cluster of reactors, 3 redundant tag servers, 60 client workstations, one historian and one engineering workstation, redundant control LAN, and redundant fibre-optic Ethernet LAN for client HMI workstations.

Common plant and services was also included in our scope. Control functions included complex control schemes, sequence logic and recipe handling. There were 4000 real I/O, 90,000 tags and 300 mimics. For this project we maintained a full time engineering team presence at site to manage the installation and commissioning as the principal CDM contractor.

We are well placed to engineer such projects owing to our extensive experience in designing and supplying systems in pharmaceutical manufacturing and processing applications.

Industry/Application Description

High availability/high reliability safety shutdown systems and chemistry pilot plant control systems used in drug development and production.

These projects comprised:

- Pulse testable hardwired safety systems designs including FPGA logic
- Integrating Siemens APACS PLCs for control application
- SIL 2/3 capability (in low demand mode)
- HMI Graphics
- Project undertaken under GAMP
- Installation and commissioning services
- Principle CDM contractor at site

Key Business Benefits Derived

- Ensures safety of personnel and environment
- Ensures protection of valuable assets
- Maximises efficiency of process
- Supports optimisation of production
- Low cost of ownership