

TRANSCO Moffat Boundary Control UK



safety solutions

oil & gas

pharmaceutical

nuclear

power & utilities



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Background

This application is a remote safety system for gas pipelines. Where the operating pressure rating of a pipeline changes at a distance downstream from the station, the SCS Boundary Controller ensures that rating is not exceeded even in conditions of fluctuating demand for gas.

System Features

The Boundary Control System is a SIL2 upgrade to an existing installation developed in conjunction with Transco (UK) and installed at several sites. SIL2 compliant communications over a public network were developed for this project. The Compressor Station has two pipelines, each with different downstream pressure boundaries. The pressure regimes vary each downstream leg. The boundary Control system is programmed using IEC1131-3 compatible tools.

Why Serck Controls?

As a Solution Provider, Serck Control and Safety developed the Boundary Control in conjunction with Transco and have supplied the system for use on several other sites throughout the Transco network.

System Size

This system contains 100 inputs and outputs of which four are pressure signals from the boundaries. The remaining signals connect the Boundary Control system to the PLCs responsible for controlling the speed of gas compressors within the station.

Standards Uses

This project compiled with the requirements of IEC61508 and is rated at SIL2 including the communications medium.

Customer Benefits

The Boundary Control system maximises the safe flow of gas through a compressor station on a pipeline with varied safe operating pressure ratings. By separating safety functions from the control system, the safety function can meet a high SIL level whilst the control system remains cost effective. By using a technique that has now been proven in several applications, the client has benefited from a more efficient development and installation process with cost effective