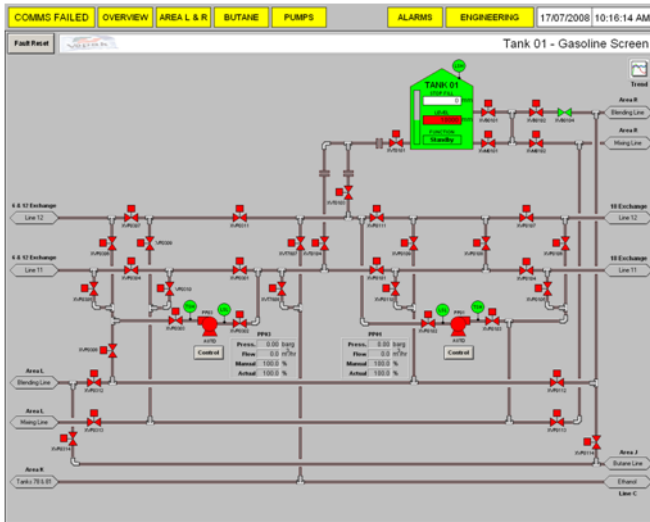




# P & I Design Ltd

Process Instrumentation Consultancy & Design

## Project Case Study Internal Product Transfers, In Tank Blending & Mixing



### ABSTRACT

This case study details a project where the requirement was to provide an automated solution to import and export of petrol and diesel from and to a jetty. The facility also required the ability to transfer these products within the tank areas, to blend and mix additional components prior to transfer of the finished product to tanks for road loading via a gantry automation system.

### AIMS

- To design an automated transfer system initially for transfer of product between two tank areas.
- To ensure that the above initial system could be expanded to provide a total terminal automation system. (works are ongoing to achieve these goals)
- To interface with tank gauging and gantry loading systems and provide reports of product movement for the management system.
- To provide site commissioning services for the project

### METHODOLOGY

The control system adopted was a Programmable Logic Controller (PLC) with Graphical User Interface (SCADA). P & I Design Ltd were responsible for the design, instrument procurement and control system programming of the transfer, mixing and blending systems. Our responsibility was also to work with the client and integrate with their existing tank gauging and road loading systems in order that all aspects of the project operated seamlessly.

The control aspects of the project included receiving petrol and diesel from ship, transfers to and from the existing tanks, mixing and blending within tank farms and export by road and ship of finished products. Following on from the design, P & I Design's Commissioning Engineers were responsible for Factory Acceptance Tests of the control panels, MCCs and commissioning of the systems. P & I Design now provide 24 hours per day 7 days a week technical assistance and support. Most problems can be resolved without a visit to site, as the engineer can interrogate the system remotely and advise the operators of the likely problems.

PROCESS  
INSTRUMENTATION  
CONSULTANCY &  
DESIGN

2 Reed Street,  
Gladstone Industrial estate,  
Thornaby  
TS17 7AF

Tel: 01642 617444  
Fax: 01642 616447  
www.pidesign.co.uk

### ACKNOWLEDGEMENTS

Vopak Ltd London Tank Terminal



PI004PUB