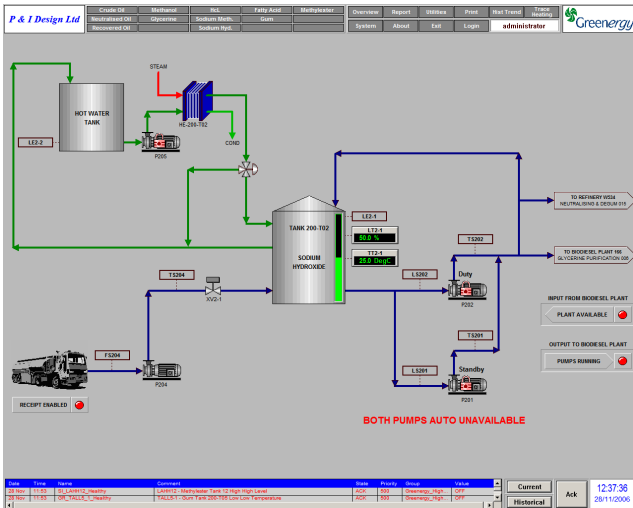




# P & I Design Ltd

Process Instrumentation Consultancy & Design

## Project Case Study Tank Farm to Plant Transfer System



### ABSTRACT

This case study details a project where the requirement was to provide an automated solution to the transfer of raw materials from both local and remote tank farms to a methyl ester plant and receive finished products from the plant to storage. The facility also needed to provide for tank to tank transfers and re-working of off-spec product to the plant.

The plant, the on-site storage and the off-site storage facility all had separate control systems, so interfacing of control systems was an integral part of the project.

### AIMS

- To design an automated transfer system including product import, transfers and export
- To integrate with third party control systems providing all interface and communications
- To provide remote access interfacing for diagnostics and on-line support
- To provide electrical engineering 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 both the on-site and off-site control systems. Our responsibility was also to work with the plant designers and integrate with their systems in order that all three aspects of the project operated seamlessly.

The control aspects of the project included receiving raw material from road and ship, transfers to and from the plant and export by road and ship of finished products.

During the design phase P & I Design were involved in HAZOP's and facilitating LOPA studies.

Following on from the design P & I Design Ltd Commissioning Engineers were responsible for Factory Acceptance Tests of the control panels, MCC's and commissioning of the systems.

P & I Design Ltd 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.

### ACKNOWLEDGEMENTS

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