

DIESEL TANK FARM

COMALCO

Project Overview:

The project involved the system upgrade of the Power Station's Diesel Fuel and Oil Supply lines. Five diesel-fired engines draw fuel from a 7,000T storage tank via a second day tank, holding 185,000 litres. Oil is fed from one of two lube oil storage tanks.

Two PLC's were used in the control system incorporating a wireless ethernet link to communicate between the two processors.

Due to experience of AIT's engineers this upgrade was carried out during normal power station operation with no 'Down-Time' recorded.

Details:

The system consisted of 2 off GE Fanuc 9030 PLC's using Genius Field I/O with 100 off associated digital and analogue signals.

The Diesel Tank PLC system functions include:

- 7000T supply pumps (Duty/Standby)
- Control inhibit during supply replenishment
- Diesel Level Monitoring
- Alarm functions

The Common Services PLC functions include:

- 185,000 litre supply pumps (Duty/Standby)
- Control of diesel supply ensuring sufficient fuel for the system requirements
- Lube Oil Supply Pump
- Diesel Engine Lube Oil Supply Pump
- Diesel Level Monitoring
- Waste Oil Monitoring
- Alarm functions

PLC - 9030

SCADA - Citect

NETWORKS - Genius Field I/O, Ethernet

