SIMATIC ET 200iSP

Norr Systems, Singapore –
Cargo and ballast system

Requirements

Loading and offloading of liquid cargo for Tanker always is a challenge. Emphasis on safety is paramount importance of all aspect. Especially for dangerous and flammable cargo, proper loading and offloading procedure is important role for Cargo Master. As such, Valve Control became most important systems in cargo load distribution. The Valve Control system must equip with reliable design and components used. Any failure of this system could be resulted undesirable consequences on both Vessel and Human safety.

Solution

NORR SYSTEMS had developed a good design on using High / Low Hydraulic Valve Control Systems integrated with Siemens Automatic Product. From mechanical aspect, the low pressure IS solenoid valve provided good solution for better reliability (Oil cleanliness is less stringent compare to high pressure solenoid valve) and easy maintenance. As from Electrical aspect, Siemens PLC provide good fit on both IS distributed I/O (ET 200iSP) and PROFIBUS provide good solution to provide communication between Hazardous areas (zone 1) and safe areas. Since, the electrical command and feedback signals for controlling the valve are via PPROFIBUS. Shipyard installation work is minimize and the specify software programming can build in many additional fault diagnostic functions for the entire systems. More importantly, the number of component used on the whole systems had reduced (due to Siemens Solution) and the entire system reliability is higher and better.

Benefits

The principle benefit of this Integrated Hydraulic High / Low valve Control systems is entirely suit the customers specify needs on both "user friendly and easy maintenance". The Siemens ET 200iSP provide extreme simplified design communication between Hazardous area and safe areas and zener barrier was no longer needed. The customer feels very comfortable on this system, while this system still helping the vessel crew for Loading / Offloading of cargo in one of the offshore oil field.