

GE Consumer & Industrial

1. Description of the project

Country: Brasil.
Localisation: Marlim, Campos, Roncador.
Customer: GE Nuovo Pignone
End User: Petrobras Netherland B.V.
Project: P51, P52, P53, P54 (2004-2005).
Application: F.P.S.O. (Floating Production Storage and Offloading unit).



2. Requirement of the customer

- Specifications included: Floating neutral pole, arc proof, special paint, incoming protection by coil (impedance limitation), double incoming line, and wirings required double insulation (0,6/1kV).
- Accordance with:
 - DNV (Det Norske Veritas)
 - ABS (American Bureau of Shipment)
 - IEC 61508 (SIL 3)

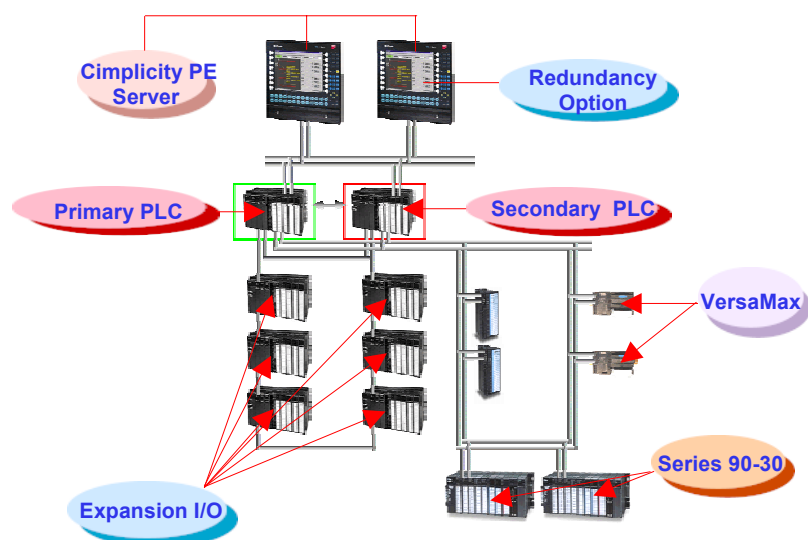
3. Why a GE solution

- Innovative and open solutions including electronic relay protection provided by GE Multilin, and automation PLCs from GE Fanuc.

4. Key Technical Features

- Generator Modules (TG) and Compression Modules of each FPSO were supplied by GE Nuovo Pignone.
- Panels type SEK-SEV32 and lighting panels.
- Fire&Gas System based on GMR with SIL3 configuration.
- Auxiliary System based on 9070 in HBR configuration.
- PLCs 9030 in duplex configuration for Unicos Systems, and type RX3I in Duplex configuration for F&G systems.
- Cimplicity HMI 35.000 tags each for SCADA System.

5. General Architecture



GE imagination at work



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