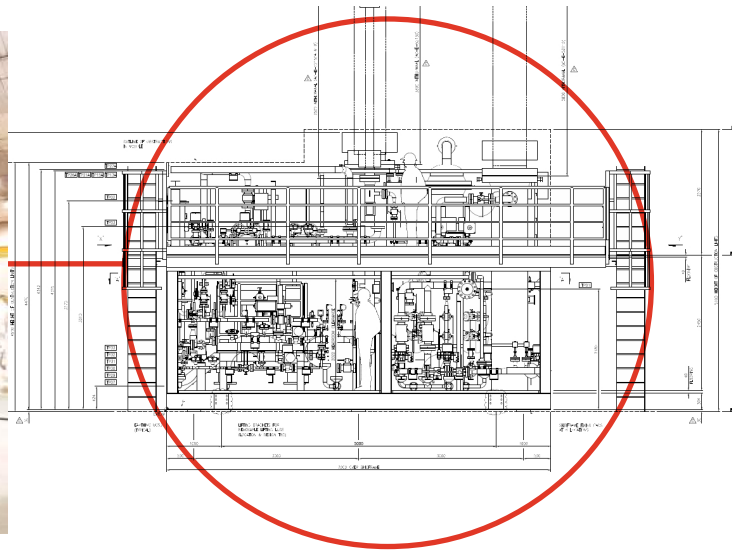


C210 | Shell | Leman Project

Fuel Gas & Seal Gas Conditioning Package



Project: Leman

Contractor: IV Oil & Gas

End User: Shell

Product: Fuel Gas Conditioning

Location: UK, Offshore

Year: 2012

Application

The project application is for skid mounted Fuel Gas Conditioning and Seal Gas Conditioning systems which are to be installed at Shell's Leman asset in the UK North Sea. OGS had worked on an earlier phase for the same field for the Sean Gas Compression project and had worked through the FEED for the Leman scope with Amec in Aberdeen before a contract was awarded through IV-Oil & Gas in the Netherlands.

Description

The main elements of scope for this package included:

- Fuel Gas Electric Pre-Heater & Super Heater & Seal Gas Super Heater
- Fuel Gas KO Drum
- Fuel/Seal Gas Filters
- Pressure Reduction
- ESD Valves
- PSV's & BDV's

All the equipment was purchased to Shell DEPs, ERDs, EFAs, MESC codes and from TAMAP approved vendors as required. All piping materials for the package are in Duplex class 300# and 600#. The seal gas system was coated in TSA, for extra protection of the equipment.

The fuel gas and seal gas packages were mounted on a package unit across a lower deck and an upper deck. The footprint for the lower deck was 7m long by 4m wide and the upper deck 8m long by 5m wide, with an overall height of 4.8m and weight of 37 tonnes.

Challenges

Some of the challenges OGS faced and overcame during the execution of the project included:

- The package footprint was limited. Regular meetings were required during the bidding process and beyond to finalise a design within the allowable space. The skid design became double decked, with a larger footprint available for the upper deck, allowing enough space for all the equipment, walkways and access for maintenance including heater element withdrawal.
- Even with this layout three further skid packages for the pressure safety valves were required and located elsewhere on the platform.
- Due to the delivery requirements to Rotterdam, the skid was designed to enable certain parts to be dismantled for transportation by road.

