Glycol regeneration and reclamation

assuring flow from deep water gas field.

Petronas Floating Liquefied Natural Gas - 2 (PFLNG - 2) project involved the installation of a new FLNG facility at the deepwater Rotan Gas field located in Block H within the South China Sea, offshore Sabah, Malaysia. The FLNG vessel has been designed to produce 1.5 million tonnes of LNG each year. The new vessel is moored using an external turret and designed to operate for 20 years without drydocking.

Petronas and its EPC contractor, JGC, awarded our team a contract for the system design, engineering, fabrication, and supply of the MEG Regeneration and Reclamation offshore unit for the Petronas FLNG-2 project. Monoethylene glycol (MEG) injection is a proven and widely used method to manage the risk of hydrate formation in multiphase gas pipelines. In a MEG Regeneration and Reclamation Unit (MRU) water, salts, and other contaminants are removed from the MEG utilizing appropriate chemistry control and solid separation technologies, thus enabling transportation of gas from wells that produce formation water and other impurities.

The MRU is a full stream package, built as a single module. The design consists of pre-treatment, one combined reclamation and re-concentration train, and solid extraction. The module was delivered in 2016 and the system was put in operation in 2021.

Project details

Design rate:

- 11 Sm^3/h

Concentrations:

- Rich MEG – 63 wt%
- Lean MEG – 90 wt%

Salt production:

- 89 kg/hr

Scope of work

- System design
- Detailed engineering
- Procurement
- Fabrication

Key facts

- End user: Petronas
- Location: South China Sea, Malaysia
- Client: JGC

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