



Offshore Engineering Service 2016



Offshore Engineering Service

■ Temporary Desalination Unit for Shell Prelude-FLNG Project

TPF-TDU Project	
Model	KRO-4800-SOD
Client	Technip France
Project	Prelude FLNG for SHELL
Capacity	1,200 ton/day*block x 4 blocks
Product quality	TDS: <5 ppm, DO: <100 ppb
Work Period	2013.09 ~ 2014.06
Scope of Work	Engineering, Construction, Supply & Installation, Commissioning, Operating





Ocean Engineering

4800 TPD Desalination Unit for Prelude FLNG

Model	Desalination Unit for Prelude FLNG	
End User	Shell-Technip France	
Configuration	Full double staged reverse osmosis SWRO system with MDG technologies	
Process	Pre-treatment → 1 st RO → 2 nd RO → MDG (1,948 kW @ 690 VAC/60 Hz)	
Product Flow Quality	1 st Stage	5,600 TPD / 500 ppm TDS (50 % recovery rate)
	2 nd Stage	4,800 TPD / 10 ppm TDS (85 % recovery rate)
	MDG	below 100 ppb as Dissolved Oxygen
Work Scope	Design, Construction, Supply & Installation, Commissioning, O&M	

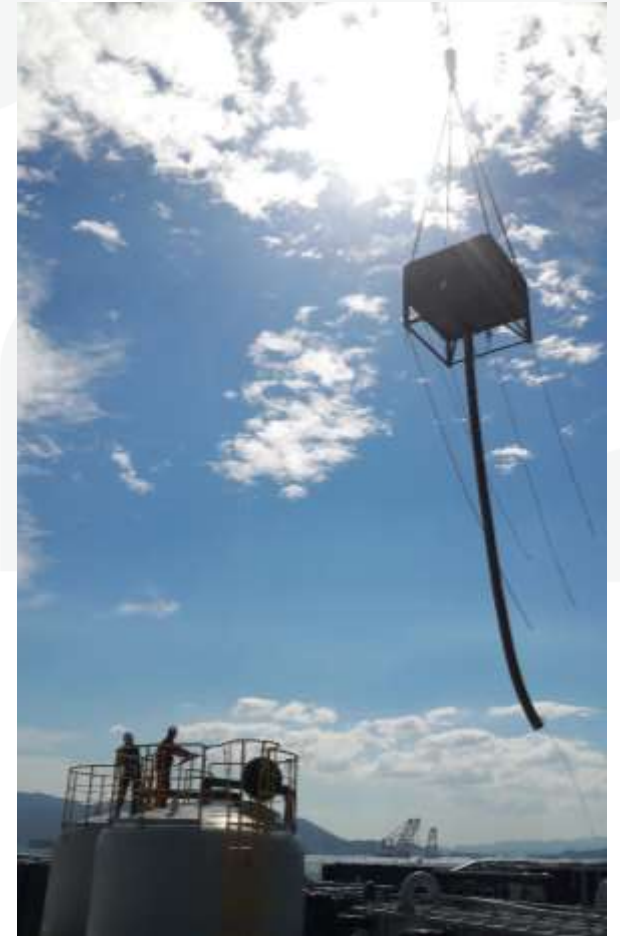
Ocean Engineering

4800 TPD Desalination Unit for Prelude FLNG



Ocean Engineering

4800 TPD Desalination Unit for Prelude FLNG



Offshore Engineering Service

- **On-site/Offshore Engineering Services for HHI Goliat FPSO Project [ENI]**
 - Registered as Technical Supply Vendor of GE
 - **On-site/Offshore Engineering for HHI Goliat FPSO PJT**

Membrane's FWG skid : Dismantling / Re building and modification

Main Equipment punch clear and modification works



Offshore Engineering Service

- **On-site/Offshore Engineering Services for HHI Goliat FPSO Project [ENI]**
 - **Main Equipment punch clear and modification works**

YEAR	Package	Description	WORK SCOPE	Vendor
2013	1Q55	Chemical Injection Package	E&I, PIPING	AG
2013	1Q5C	Metering Skids	E&I, PIPING	FMC
2013~14	HQ84	FRESH WATER GENERATOR	SKID FULL MODIFICATION	MEMBRANE
2013	1Q13	Diesel Generator	E&I, PIPING	FRAMO
2013	1Q01	Gas Compressor Package	E&I, PIPING	GE
2013	HQ8C	Nitrogen Generator	E&I, PIPING	AIR PRODUCT
2014	1Q55	Chemical Injection Package	E&I, PIPING	AG
2014	1Q01	Gas Compressor Package	E&I, PIPING	GE
2014	1Q81	Inert Gas Generator	E&I, PIPING	AG
2014	HQ86	Sewage Treatment	E&I, PIPING	DVZ
2014	1Q06	Air Compressor and dryer Package	E&I, PIPING	KLUND
2014	1Q81	Inert Gas Generator	E&I, PIPING	AG



Offshore Engineering Service

- **On-site/Offshore Engineering Services for HHI Q204 & DSO Project**
 - **Main Equipment punch clear and modification works**

YEAR	Package No.	Description	WORK SCOPE	Vendor
2014	HQ03	Key Service Generator Package	E&I	BP
2014	HQ04	Emergency Diesel Generator Package	E&I, MECHANICAL	BP
2014	HQ84	F.W. Generators and Portable Water System	E&I, MECHANICAL	BP
2015	HQ03	Key Service Generator Package	E&I	BP
2014	1Q01	Gas Turbine Driven Compressor	E&I, MECHANICAL	AIRDYNE
2014	1Q06	Air Compressor	E&I, MECHANICAL	AIRDYNE
2014	1Q11	Gas Turbine Driven Generator	E&I, MECHANICAL	KATO
2014	1Q55	Chemical Injection Package	E&I, MECHANICAL	Chevron
2014	1Q75	Material Handling Equipment	E&I, MECHANICAL	Dresser-Rand
2014	1Q84	R.O Water Maker Unit	E&I, MECHANICAL	Chevron
2014	1Q88	Swage Treatment Package	E&I, MECHANICAL	Chevron
2014	1Q8C	Nitrogen Generator	E&I, MECHANICAL	AIR PRODUCT
2014	1Q89	Flare Package	E&I, MECHANICAL	FLARE

Offshore Engineering Service

■ On-site/Offshore Engineering Services for HHI CKX P/FORM Project [BCP]

● Main Equipment punch clear and modification works

YEAR	Package No.	Description	WORK SCOPE	Vendor
2014	-	Gas Turbine Compressor Package	E&I, MECHANICAL	GE
2014-2015	1Q55	De-sander Package	PIPING ENG,FAB,INST.	DPS ENG
2015	-	Gas Turbine Compressor Package	E&I, MECHANICAL	GE

■ On-site/Offshore Engineering Services for HHI H-2620 Fred Olsen Drillship

● Main Equipment punch clear and modification works

YEAR	Package No.	Description	WORK SCOPE	Vendor
2014	-	DO & LO Purifiers	E&I, MECHANICAL	GEA
2015	-	DO & LO Purifiers	E&I, MECHANICAL	GEA
2015	-	Slop Water Treatment PACKAGE	E&I, MECHANICAL	GEA