

TRIANGLE ENERGY CLIFF HEAD ALPHA PLATFORM

Subcellar Deck Grating Replacement, offshore Perth Basin

Triangle Energy, the operator of the Cliff Head Alpha (CHA) wellhead platform, contracted ICON to design, supply and install replacement grating for the subcellar deck of its CHA platform, located offshore Perth Basin in 18 metres of water.

After decades in offshore production the existing subcellar grating needed replacing, along with some structural bracing required to support the new grating panels.

ICON performed an upfront 3D scan, to allow detailed design of the grating panels which were subsequently slotted millimetre perfectly into the subcellar deck thanks to the efficient work of ICON's drafting team and local fabricators.

Human Safety Factors

Being a Normally Unmanned Installation (NUI) with limited space, the installation methodology chosen was rope access technicians; being the safest and most efficient means of performing the works, in conjunction with scaffolding where appropriate.



The Cliff Head A platform being originally installed by ICON in 2006.

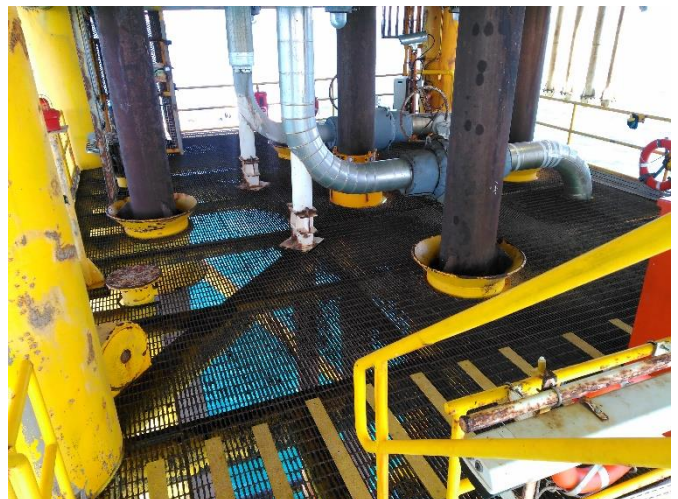


The ICON team which hand carried and installed replacement grating and structural steel on the legacy CHA platform.

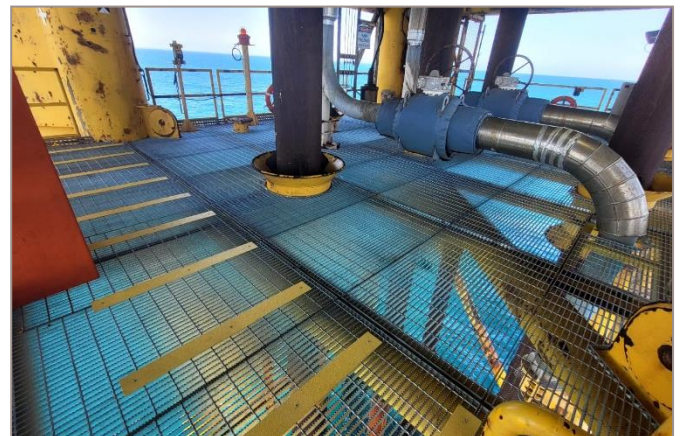
Each grating panel was designed to specific weights and sizes for ease of handling. The panels were packed in the correct installation sequence for further onsite efficiencies. All materials were loaded on the main deck and then lowered to the subcellar deck by ICON's experienced offshore team.

Working within the constraints of a live production platform with live conductors, the existing corroded welded gratings were carefully cut into pieces and recovered for scrapping. The corrosion on the existing supporting structure was removed and repainted before the installation and welding of the new grating panels. A team of five was mobilized daily by helicopter to the platform.

It is worth noting that ICON was the engineering house that initially designed and installed the CHA wellhead platform in 2006. The Cliff Head oilfield is the only offshore producing field in the Perth Basin.



Before: the existing corroded subcellar deck grating



After: The replacement grating was millimeter perfect thanks to teamwork between ICON's drafting team, capable Australian fabricators and the skilled offshore team.