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Project

Module Offloading Facility, Ichthys LNG project, Darwin, Australia

Design and construction of the Ichthys LNG Project Module Offloading Facility (MOF) as part of the INPEX-operated Ichthys LNG facility in Darwin. The MOF is used to offload modules being to assemble the LNG liquefaction plant.

The MOF comprises a 160 x 65 metre heavy lift berth, including a transition pontoon berth, module carrier Ro-Ro berth, general cargo, Lo Lo berth, associated breasting and mooring dolphins and access catwalks. The MOF also includes provisions for marine operations, corrosion and cathodic protection systems and installation of temporary navigation aids.

On the same project, BAM Clough was also awarded to design and construct the Ichthys LNG Product Loading Jetty.

Location	Bladin Point, Darwin, Northern Territory, Australia
Client	JKC Australia LNG (JGC Corporation, KBR and Chiyoda Corporation)
Design	BAM Infraconsult/DMC
Contractor	BAM Clough Joint Venture
Contract type	Lump Sum Engineering, Procurement and Construction
Contract period	February 2012 – June 2014
Contract sum	€110 million

'An important part of a key facility.'

July 2014

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The main body of the module offloading facility (MOF) is a cellular cofferdam structure. A cellular cofferdam is a gravity base structure consisting of a row of circular cells and intermediate cells, filled with selected rock material.

The MOF consists of 14 cells, each measuring 17.3 metres in diameter. Each cell is made by piling 108 flat sheet piles. The cell sheet piles were installed by using a purpose built temporary structure called as a cell template. The template is positioned with a finger-shaped barge.

Catwalks

Cell template

The cell template lowers its four spud legs to the sea bottom and will climb hydraulically free from the barge deck. The sheet piles are pitched around the cell template, held into position and then driven into the seabed. During the placing of the sheet piles, the template and spuds provide stability and rigidity.

Rock is then conveyed into the cell until it is completely filled. The mobile conveyor used to fill the cells is one of the largest in the world with a reach of 63 metres.
The concrete coping beam elements were produced at BAM's Precast Yard in Indonesia.

Crane barge IB-429 constructing dolphins