



MARINE GROWTH CONTROL SOLUTION

Case Study: Nigerian Ocean Energy Harnessed to Prevent Marine Fouling on Total Offshore Platforms

OFON II PROJECT, NIGERIA



Field Data

Client : Total E&P Nigeria Ltd
Field : Ofon Field, Oil Mining Lease (OML) 102
Owner : Nigerdock Nigeria PLC-FZE
Type : Greenfield
Location : Lagos, Nigeria, Western Africa
Water Depth : 40m (131 ft)
Industry : Oil & Gas

Project Info

Award Date : January 2014
Execution : March 2014
Completion : March 2014
Location : Onshore – Nigerdock, Nigeria

MGC Solutions

Structures : Two Platforms
Quantity : 40 units
Type : MGP-W-SC-SH
MGP II SZL-G (TBC)
MGP-W-SC-SH-AI
Application : Jacket Leg and Vertical Diagonal Member (VDM)

PROJECT BRIEF

The OFON II project is an expansion of the OFON I operated by TOTAL Exploration Nigeria. The Marine Growth Control (MGC) Technology was specified as part of the project and installed on the structures fabricated by Nigerdock in Nigeria.

IEV's new generation of self-cleaning Marine Growth Preventers (MGPs) were installed on the jacket legs and vertical diagonal members of both the structures protecting from the splash zone and first bracing level up to EL (-) 9.500m , the area most prone to marine growth colonisation and wave loading.

Drawings and data of the structure revealed the requirement for three types of MGP application;

MGP-W-SH Self-Cleaning wave-driven MGP is specified on members without obstructions. Self-cleaning is the latest design feature of MGPs that removes the need for anti-fouling coating to any parts of the product, thus extend product service life.

MGP II SZL-G (TBC) Fixed connector MGPs are installed on coated members and below barge fender supports.

MGP-W-SC-SH AI Self-Cleaning Anti-Impact MGP is specified on members with obstructions to withstand potential impact..

This fast-track project was awarded in January 2014, allowing less than two months for production, Quality Check, three stages of 3rd party Inspections and logistics to project site. The installation works at site commenced and ended in March 2014. The OFON I is IEV's first MGC commercial project in Nigeria and in the African continent.

For more information about this project, email mgc@iev-group.com/info@iev-group.com



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ASSEMBLY AND INSTALLATION



Prior to installation, the MGP products assembled and tagged with the assigned jacket members at the yard.



The tagged MGP products were then, installed onto the assigned jacket members.



The MGP-SC product is designed with rubber disc that moves along the rigid connectors, to self-clean and prevent marine colonisation on itself, prolonging its service life span.



The latest MGP-AI product is specifically designed with more rubber discs on the rigid connectors, to withstand impact from harsh weather condition and its surroundings at the splash zone area.



At some areas of the jacket, the MGP products were also installed using crane and cherry picker.



Despite the obstructions on the jacket structure, using rope, the MGP products were lifted up and installed at the designated members.

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