

# DEEPWATER

## RETROSAM™ HANGING ICCP ANODE SYSTEM INSTALLED ON FPSO: NORTH SEA

**A hanging impressed-current anode system was used to retrofit Triton's failing ICCP system.**

In 2021, Deepwater EU Ltd installed a retrofit impressed current cathodic protection (ICCP) system on the Triton FPSO hull located in the North Sea. The original FWD ICCP system on the Triton FPSO no longer provided adequate cathodic protection, so Deepwater EU Ltd were contracted by Dana Petroleum to develop and implement a retrofit ICCP solution to repolarise the structure and maintain adequate levels of cathodic protection for the FPSO's lifetime. After detailed conceptual work was undertaken, Dana selected the Deepwater RetroSAM™. The retrofit ICCP system consists of one number 250 A remote-suspended anode module with associated cable and topside equipment. During July 2021, the retrofit ICCP system was successfully commissioned and cathodic protection was re-established on the Triton FPSO without the need for any subsea intervention. Initial potential measurements indicated that the submerged areas of the FPSO were now receiving adequate cathodic protection and sufficient CP current capability to fully repolarise the FPSO and protect against corrosion. When the TRU is energised and the suspended anode module is operational, satisfactory levels of protection are achievable and maintainable during varying conditions for the system's design life, with full automatic ICCP potential control achievable by interfacing the new TRU with the existing permanent zinc reference electrode installed as part of the original shipboard ICCP system.

More info at [www.stoprust.com](http://www.stoprust.com)



**HANGING AROUND THE PORCH**

The anode module is suspended from this porch during normal operations.



**ANY PORCH IN A STORM**

The anode module is hoisted aboard this porch during harsh weather.



**TRITON FPSO**

The vessel, which sits in 90 metres of water, is 244 metres long and has a storage capacity of 630,000 barrels.



**RECOVERY TIME**

The RetroSAM™ while hoisted onto the recovery porch.