

Oxifree Case Study Oil & Gas



Location: Campos Basin (Rio De Janeiro)

Date: August 2008 (project ongoing)

Introduction:

Petrobras BR have suffered ongoing corrosion issues with their offshore production assets (manned and unmanned platforms). Degradation of structures usually due to galvanic and atmospheric corrosion was high, causing a safety risk. Man hours for ongoing maintenance were at an unacceptable level. Tecnofink Brazil introduced Oxifree TM198 to Petrobras in August 2008 as a solution for the problem.

Objective:

To find a cost effective and safe solution to corrosion caused by dissimilar metals on bolted and welded structures such as valves, flanges and tappings. The procedure for applying a solution must not inflict on continuous production.

Process:

Tecnofink Brazil assessed the current situation by visiting Petrobras' platforms and found various techniques for corrosion control had been used, a lot of which had since failed or were degrading rapidly. Tecnofink proposed Oxifree TM198 was the solution Petrobras required.



Pictured above are examples of anti corrosive gauze tape containing VCI foam (new and old)



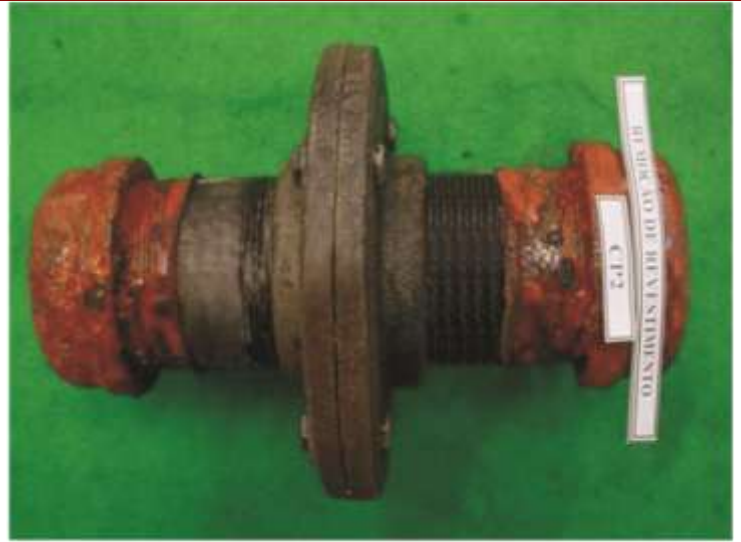
Flanges above are coated with anti-corrosion paint



Pictures above show flange prepared for painting -notice the stripped surface

Procedure:

Before Oxifree TM198 material could be used Petrobras insisted on carrying out product approval testing under the industry standard ASTM B117 Salt Spray / Fog Test specification.



The testing was carried out and found Oxifree TM198 material to be effective to up to four times the industry standard of 3,000 hours. The test was halted at 11,688 hours have significantly exceeded the required benchmark.

Oxifree was given full approval for use offshore with work commencing in August 2008 to encapsulate all problem area valves and flanges starting on platforms P1, P19, P32. Oxifree is now considered the de facto anti-corrosion solution for Petrobras on existing structures and has been specified as the coating solution for all critical components on new build platforms.



Flange being encapsulated with Oxifree, notice it fills the gap between the flange as well as the bolts / nuts and threads

Oxifree TM198 has been applied to a range of flanges



Conclusion:

Petrobras were very satisfied with the results from platforms 1, 19 and 32 and subsequently 5000kg of Oxifree TM198 material has been used on Petrobras assets in the last 2 years. Furthermore, Oxifree is expecting to protect a further 40 platforms over the next 8 years.

The many benefits Oxifree provides means that ongoing operational costs have been greatly reduced with one major factor being less time needed for inspection as Oxifree can be easily removed and re-applied, remaining effective for many years.

For more information please contact

OXIFREE
GLOBAL LLC

Oxifree Global LLC | Tel: (+1) 281 251 7171 | Email: info@oxifree.com | Web: www.oxifree.com