

Calorifier Vessel Repair

Overview

As part of the commissioning process of an FPSO, built and commissioned in Korea, fresh water medium was utilised for the pressure systems. This water contained Microbial content (suphate reducing bacteria (SRBs)). After a 3 ½ year period, SRBs resulted in the break down of the vessel's parent substrate producing internal pitting, weld cracking and subsequent shutdown of the calorifier.

Scope

Replacement of the vessel was not an option as there was a 3-month lead time for replacement. Shutdown of the calorifier had also produced a welfare issue - personnel on board were unable to have a hot shower. Walker Technical would apply total encapsulation to the vessel repairing all defects. Emergency category job.

Challenges

Walker Technical had to manage their operational rota within a busy window in order to mobilise a Technowrap™ Installer within short notice in response to the emergency job. Materials also had to be shipped to the installation environment to arrive timely and in conjunction with the installer, ready to begin the repair.

Our Approach

The vessel specification was a design pressure of 8 Bar, design temperature of 85°C and vessel substrate comprising of 304 grade stainless steel. Due to the ambient environment the repair would be installed within, the Technowrap 2K H.A™ (High Ambient) system was used for successful repair installation restoring the vessel to its full integrity and to its original design specification.

