Structural Reinforcement of Nozzle with Belzona SW II

ID: 8137

Industry: Customer Location: Sao Paulo, Brazil
Application: Application Date: December 2018

Substrate: SA516 Gr 70

Products: * Belzona 1311 (Ceramic R-Metal),

* Belzona 1982 (Superwrap II),

* Belzona 9381 (Carbon Fiber Reinforcement Mesh),

* Belzona 9382 (Release Film),

Problem

Nozzle welded to the bottom of the tank showing accelerated signs of internal corrosion. Fluid: Oxygen Scavenger Pressure: 1 kg/cm2 Temperature: 26°C Original Wall Thickness: 8.7mm Final Wall Thickness: 4mm









Photograph Descriptions

* 1. Overall view of finished repair 2. Overall view of finished repair 3. Overall view of finished repair 4. Close-up view with metallic id tag,

Application Situation

Nozzle of process vessel suffering from internal corrosion and significant thickness loss. A carbon fiber polymeric compliant repair was needed, to comply with the structural reinforcement design of the equipment, and allowing for its operational continuity and reliability.

Application Method

Surface preparation was performed in accordance with SSPC SP11 with a MBX, achieving the required surface roughness for the application. After surface cleaning to get rid of oil and contamination, Belzona 1311 was used to bond a metallic coupler. The Belzona Superwrap II system was then applied around the nozzle and in part of the tank wall, with a final thickness of 6mm.

Belzona Facts

Application performed on site with certified Belzona applicators in accordance with ASME PCC-2. By restoring the structural integrity of the equipment with a non-metallic repair the end user was able to save on a lot of labor and safety of its employees.

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FS 695214 manufactured under an ISO
ISO 14001:2015 9000 Registered Quality
EMS 695213 Management System.

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