CO2 Absorber Rubber Lining Replaced with Belzona Coating System

ID: 9290

Industry: Power Customer Location: RAS LAFFAN, QATAR
Application: TCC-Tanks and Chemical Containment Application Date: December 2023

Areas

Substrate: Carbon steel

Products: Belzona 1331, Belzona 5811 (Immersion Grade)

Problem

The rubber lining of the CO2 absorber was swelling, blistering and crackings throughout the tank interior. Corrosion damage to the base metal was so pronounced that it could be glimpsed through cracked/delaminated rubber lining.

Traces of severe corrosion from Coating application in progress Manway and flange coated and Protected tank interior after under the rubber lining to the manway and flange protected application

Application Situation

The damaged rubber lining was replaced with a Belzona epoxy coating system. The original system thickness requirement by the customer was a minimum of 2 mm, as the previous rubber lining was 3 mm thick. The proposal initially considered was a 2 mm thick build-up with Belzona 1111, but it was too costly and over budget to cover the entire interior surface, so Belzona 5811 was used for the build-up instead of Belzona 1111.

Application Method

The application was carried out in accordance with Belzona Know-How System Leaflet TCC-3.

Three coats of Belzona 5811 (Immersion Grade) were applied as filler and to cover the wall loss. Belzona 1331 was applied as the final top coat.

Each coat was applied using an airless spray machine. The materials were applied in accordance with the relevant Instruction For Use and the guidance of approved method statement.

Belzona Facts

Almost all internal surfaces had pitting and Belzona 5811 was applied directly to the substrate to fill and seal the pitted, uneven surfaces without the use of smoothing paste grade material. Belzona 1331, applied as a topcoat on the premise of contact with the medium, offers excellent erosion/corrosion resistance and a long service life.

