Emergency Repair to Boiler Water Pipe

ID: 8854

Industry: Power Customer Location: Gas-Fired Power Station, UK

Application: VPF-Valves, Pipes and Fittings Application Date: July 2022

Substrate: Steel

Products: * Belzona 1111 (Super Metal),

* Belzona SuperWrap II,

Problem

The 600mm diameter pipe was heavily corroded resulting in several through wall defects.











Photograph Descriptions

- * 1. Leaking pipe external and internal images,
- * 2. Fabricated Belzona Super Wrap II plate,
- * 3. Plate bonded on with Belzona 1111 and ratchet straps in place to aid bonding,
- * 4. Completed wrap,

Application Situation

A boiler pipe used in the water treatment discharge system was leaking and had been progressively getting worse over the course of a few years. The whole site was on a shutdown allowing a unique opportunity for the pipe to be isolated during repair.

Application Method

The substate was grit blasted and prepared to ensure optimal adhesion of the Belzona solution. Once the substrate was thoroughly assessed, a Belzona SuperWrap II composite plate was fabricated to fit the defect area. Belzona 1111 (Super Metal) was applied directly to the substrate, and the plate. The plate was then bonded in place. A full wrap of Belzona 1111 incorporating Belzona 9341 reinforcement sheet was then wrapped around the complete 2.6m length of the pipe integrating a 50/50 overlap system. The application was carried in accordance a modified version of Belzona System Leaflet VPF-11.

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Belzona Facts

The leaking pipe was repaired by the Belzona UK Applications Team who were able to provide services during a scheduled shutdown. If the repair had not been completed, the next opportunity would have been in five years time. The pipe would have continued to deteriorate and potentially caused catastrophic damage upon failing.