Crude Oil Pipeline Repair with Belzona Conventional Wrapping

ID: 10154

Industry:	*Power*	Customer Location:	*Saudi Arabia*
Application:	*VPF-Valves, Pipes and Fittings*	Application Date:	*June 2021*
Substrate:	*Carbon steel*		
Products:	*Belzona 1111 (Super Metal),Accessories,Belzona 9111 (Cleaner Degreaser)*		

Problem

The customer was experiencing issues with a crude oil transfer pipeline located in the power plant's marine jetty area. The pipeline had developed pinholes and exhibited reduced wall thickness, posing a risk of leakage and potential operational hazards.



Overview of Pinholes and External Corrosion on the Pipeline



Condition After Grit Blasting Surface Preparation



Application of Belzona 1111 (Super Metal) and Belzona 9341 (Reinforcement Tape) conventional wrapping in progress.



Completed application of the Belzona conventional wrapping system.

Application Situation

The use of Belzona 1111 (Super Metal) in conjunction with Belzona 9341 (Reinforcement Tape) for the rebuilding and repair of crude oil piping delivered significant cost and time savings compared to traditional repair methods such as pipe replacement or welding. The cold-applied composite system eliminated the need for hot work permits, specialized welding crews, and extended shutdowns, thereby reducing both labor and associated costs.

Repairs were completed within hours rather than days, enabling a rapid return to service and minimizing production losses. In addition, the solution improved site safety by eliminating fire hazards and extended the service life of the pipeline through effective corrosion protection, making it a highly efficient and economical repair option.

Application Method

1. The surface was prepared by grit blasting.

2. Belzona 9111 (Cleaner/Degreaser) was used to remove all remaining contaminants.

ISO 9001:2015
FS 695214
ISO 14001:2015
EMS 695213

Belzona products are manufactured under an ISO 9000 Registered Quality Management System.

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3. Belzona 1111 (Super Metal) was applied in conjunction with Belzona 9341 (Reinforcement Tape).

4. The system was left to cure in accordance with the manufacturer's instructions.

Belzona Facts

Using Belzona 1111 (Super Metal) and Belzona 9341 (Reinforcement Tape) for the rebuilding and repair of crude oil piping delivered substantial cost and time savings compared to alternatives such as pipe replacement or welding. Traditional methods would have required procurement of new piping, specialized hot work, and extended downtime, all of which significantly increase costs and operational risks. In contrast, the Belzona solution allowed in-situ application without dismantling, eliminating transportation while reducing downtime from days to hours.

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