THIN FILM TECHNOLOGY, INC.

HIGH PERFORMANCE EPOXY COATINGS

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CASE HISTORY:

COMPOSITE REPAIR OF FLARE LINES

PRODUCTS	BIO-SEAL 192, BIO-DUR 560
LOCATION	SOUTH AMERICA
YEAR	2022

CHALLENGE

Several hundred feet of 36” to 50” flare lines were rusted to the point that leaks were present. A permanent repair was necessary in order to return the pipes for long term maintenance-free service

SOLUTION

After surface preparation by dust-free high-pressure water jetting with abrasive grit the affected areas were primed using BIO-DUR 560 epoxy coating primarily to assure excellent adhesion and also to provide an effective electrical insulation against possible adverse cathodic effects from the carbon composite overlay.

IMPLEMENTATION

18oz. bi-directional fabric in 12” width was field impregnated with BIO-SEAL 192 resin and applied spiral fashion over the BIO-DUR 560 primer with a 1”, (2.5cm), overlap.

A technician is shown testing the completed application for leaks using a soap solution after the composite had cured.

A coating was applied after QC testing in order to preserve the composite against UV degradation.

OUTCOME

The flare lines are sealed and reinforced to provide long -term service with no further repairs likely in the foreseeable future.

TFT is able to provide a variety of saturating resins designed for service in various conditions ranging from aggressive chemical to very hot service. Resins are even available for underwater application to surfaces such as pipelines and shore facilities at all depths. In these cases, the saturation process is completed in dry conditions with the fabric being delivered to the application divers who simply unroll the impregnated fiber around the surface to be coated. Curing proceeds normally underwater resulting in a smooth and reinforcing composite.

Inspecting carbon fiber repair of pipeline.