SYNTHO-GLASS® XT

8" OFFSHORE GAS PROCESS PIPELINE, THAILAND REINFORCEMENT AND REPAIR

Problem

An 8" OD gas processing pipe located offshore in Thailand was heavily pitted and in need of repair to maintain operating conditions.

Conditions

The composite calculations were based on an operating pressure of 150 psi (10.3 bar) for the pipe system with an original wall thickness of 0.368" (9.37mm) which was inspected to have several corrosion pits of varying dimensions up to 60% wall loss.

Solution

The area was sandblasted to remove all rust and foreign matter. Each pit was filled with a high compression strength epoxy putty called Syntho-Steel™ to reconfigure the corroded sections of pipe back to its original geometry. The entire repair length was then coated with 30 mils of an anticorrosion, adhesion promoting epoxy, Syntho-SubSea™LV. The two-part epoxy effectively stops any future corrosion from forming while also providing a load transfer median engineered to cycle and work with the design pressure of the pipeline. Within a very short time, the corrosion pits were filled, the primer epoxy was applied, and the defective section was wrapped with Syntho-Glass®XT, high tensile strength fiberglass composite system, which restores the structural integrity of the pipeline.

Result

The repair was completed inexpensively within a matter of two hours, fully restoring the structural integrity of the pipeline back to it's original design specifications. The Syntho-GlassXT composite repair was completed without the need to shut down pressure throughout the pipe system, thus saving the operating company money in associated shutdown costs of the platform.

NRI®
QUALITY. RELIABILITY. INTEGRITY.