

SYNTHO-GLOSS[®]XT

6" OD REPAIR: POWER GENERATION, USA



Problem

420" (10.67 meter) of the 6" OD carbon steel schedule API-5L Grade B line was displaying external corrosion due to heavy condensation.

Conditions

The line carries water for the power plant's fire system; therefore long term shutdown was not an option.

Solution

In order to promote adhesion, the pipe was cleaned by removing rust, paint, and other foreign matter using power tools. It was then coated with Syntho-SubSea[™], a high compression strength two-part Kevlar[®] reinforced epoxy. The two-part epoxy stopped the corrosion and provided a load transfer median engineered to cycle and work with the 180 psi (12.4 bar) line. The line was then wrapped with 8 layers of Syntho-Glass[®]XT, a 54,000 psi (3723 bar) tensile strength fiberglass composite sleeve, which provides structural integrity to the repair.

Result

This cost effective solution was an immediate success, as the line could not be taken out of service for more than one hour, which left it available in case of a fire. The line now has even more strength than the original pipe at the time of installation. The pipe once again meets the MAOP and is also protected from further corrosion.



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