

# SYNTHO-GLOSS<sup>®</sup> XT

## OFFSHORE PIPELINE REHABILITATION



### Problem

Officials in South East Asia were forced to shut down their largest pipeline, effectively stopping production of natural gas throughout the nation.

### Conditions

With substantial wall loss to a riser section of 32" OD pipeline, a large scale disaster was imminent. The damaged pipeline was located on an offshore oil rig and supplied the nation's power plants with fuel. The shutdown cost the country roughly \$125,000 an hour, or more than \$3 million a day. Replacing the pipeline would have been a major undertaking that would have lasted months and cost millions. Heavy equipment would have also needed to be shipped to the oil rig to make the repairs. Instead, they called on NRI to solve this monumental problem, as this single, broken pipeline could have been financially crippling.

### 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<sup>™</sup>, 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 1522 psi (105 bar). The line was then wrapped with Syntho-Gloss<sup>®</sup> XT, a 56,000 psi (3860 bar) tensile strength fiberglass composite sleeve, which provides structural integrity to the repair.

### Result

In less than 36 hours, NRI was able to fix a pipeline that otherwise could have taken months. NRI completed the pressure testing of the repair at 1700 psi (117 bar) for 4 hours and they resumed operations later that afternoon. The gas field is now operating at full capacity of 630 million cubic feet per day.



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