



J.T. THORPE & SON, Inc

Established 1906

ENGINEERS and CONTRACTORS



Refinery LHP Carbon Fiber Strengthening Project

2010

Description: The Refinery had a dilapidated, failing LHP Structure, deteriorating from corrosion, erosion and concrete failure. The options were to shut down the plant and replace the structure or find an acceptable alternative. An outside engineering firm estimated costs to the plant in the seven figure range to perform this work in the traditional manner.

Highlight: JTT provided a unique solution to the problem. JTT engineered and performed the repair meeting all necessary codes and offering an unforeseen solution. This solution entailed repairing the substrate and using a carbon reinforced polymer strengthening design. Finally, the structure was fireproofed with an intumescent material. This solution saved the customer millions of dollars compared to replacing the structure in the conventional manner.

Scope: All work was completed working 2,000 man-hours, including partial demolition, concrete remediation, carbon fiber (FRP) structural strengthening and fireproofing.

Safety: 0 Recordables, 0 First Aids



