

COOLING TOWER FRP LINE REPAIR

Specialty Nuclear Project Backed by CFES



Addressing an Emergent Line Leak

A large nuclear plant in the Midwest faced a critical challenge when a leak was discovered in a fiberglass pipe leading to the unit's cooling tower. This leak forced the station to deregulate their megawatt producing capabilities during a critical time for demand. The first attempt to repair the line was to install a new section of fiberglass pipe. However, the clamps used to join the new and existing line cracked the ends of the existing pipe. The plant needed to find a solution and, more importantly, a specialty contractor that could help design and install a solution while the unit remained online and the basin filled with water.

Experience Always Overcomes Challenges

The CFES-proposed solution was to join the pipes with a multilayer, bidirectional fiberglass wrap. This solution presented some unique challenges for the station and the dive team of JF Brennan.

01 Will the FRP wrap perform as designed in a field application while being installed underwater?



02 Will the divers be able to install the FRP wrap under the current site conditions?



To answer these questions, CFES made a mockup of the pipe and simulated the actual field conditions in a large tank of water at the CFES lab



CFES was able to simulate the workability of the CFES FRP system and prepare the divers for the installation challenges that the dive team would face in the field



CFES was able to provide an onsite training and was responsible for the technical oversight



CFES was able to validate their design through an empirical approach



Experience, testing, and trust proved to be the difference

A Rapid and Effective Restoration

The repair solution, backed by CFES's rigorous planning and testing, was completed safely and efficiently. Key achievements included:

- Testing, material procurement, and mobilization were completed within 6 days of being notified of the issue.
- The plant was restored to full capacity
- Special Thanks To JF Brennan "The Dive Team" for an amazing job

CONTACT US

If you have any questions about your project, just contact us in a convenient way for you.



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