

## Added Value Through Pipe Wrap Technology

By Peter Blais, PE – HydraTech Engineered Products

It is a fact that the marine environment accelerates corrosion on ferrous material and failures can occur. This deterioration of components has caused unscheduled downtimes, safety concerns, and significant impact on operating budgets. When time is of the essence or the required part is not onboard there is a new technology now available that can increase the usable life of components and structures, while significantly reducing the economic burden normally associated with repair or replacement options. This technology, known as HydraWrap is approved by the American Bureau of Shipping, utilizes carbon fibers and high strength epoxy resins to restore the structural and/or pressure boundary capacity of shipboard piping, bulkheads and equipment. HydraWrap, manufactured by HydraTech Engineered Products of Cincinnati, Ohio is a low cost alternative to traditional weld repairs. HydraTech specializes in polymer development and manufacturing and has been involved in the composite repair of industrial pipe for several years.

Eventually piping will leak. The ag-



gressive fluids in the piping along with a corrosive environment will cause piping to corrode and fail. The composite system approved for both marine piping and bulkheads only requires a small window to be dry and free of debris. During that time the surface is prepared and the epoxies are mixed for the product to be applied. Most applications take less than an hour and the system can be back in service in less than 24 hours. Once in service these systems can handle over 150 psi with only a few wraps applied. HydraTech provides two types of kits: The HydraWrap Repair Kit which includes different fabrics and epoxies to repair various shapes or specified kits which are packaged for specific pipe sizes and dimensions. All kits come complete with application tools as well as detailed instructions for installation. A ship that requires repair at

sea now has the option of a small package that can repair a variety of items.

Recently a large container company in Honolulu requested the aid of HydraWrap. The heavy fuel oil transfer system had a leak and the logistics of the traditional repair would take too long. HydraWrap was sought to prevent further leakage into the coffer dam during fuel transfer and not only repair the condition, but repair it while the ship was in port during cargo transfer.

The repair was completed and the leak was sealed in a cost effective, timely manner. Rehabilitation using HydraWrap is not only added value, it extends the service life, reduces maintenance and eliminates downtime. For more information about HydraWrap visit

[www.hydratechllc.com](http://www.hydratechllc.com)