

## ETCE2001-17037

### DEVELOPMENT OF NEW INTERNATIONAL STANDARDS FOR COMPOSITE PIPING SYSTEMS FOR THE MARINE AND OFFSHORE OIL & GAS INDUSTRIES

Richard H. Lea  
EDO Specialty Plastics  
15915 Perkins Road  
Baton Rouge, Louisiana, 70810, USA

#### ABSTRACT

The development of international standards for composite piping systems that are used in the Marine and Offshore Oil & Gas Industries is a recognized customer need. These industries are global in nature. It is not uncommon to see project specifications written in London and Houston, fabrication of the vessel hull in a Korean yard, topsides construction in Indonesia and project location off the coast of West Africa. Operator supplied specifications could come from The Netherlands, France, Norway as well as numerous other countries. In addition, certifying agencies such as ABS, Lloyds or DNV could be involved that must follow international maritime rules and regulations.

A concerted effort has been made within the past five years to address these issues. Operators worldwide have come together with composite pipe manufacturers, engineering firms and certifying agencies to develop international standards that address these issues.

Anyone considering the use of composite piping in the Marine and/or Offshore Oil & Gas Industries should consider the ASTM and ISO Standards that are in the final stages of development.

*ASTM F-1173 Rewrite* is a purchasing document that is being balloted at the present time. It was developed by ASTM F25.13.03 workgroup.

*ISO WD 15840* is the international version of ASTM F-1173 Rewrite. It has been circulated to the international community for comments. It was developed by

ISO/TC8/SC3/WG4.

*ISO WD 14692* is a rewrite of original United Kingdom Offshore Operators Association (UKOOA) document that was adopted in March 1994. It has been circulated to the international community for comments and is in its final stage of development. It was developed by ISO/TC 67/SC 6/WG 5. This document is an engineering specification and recommended practice document.

When finalized and passed by the various committees *ISO 15840* and *ISO 14692* should be used in conjunction with each other. They are compatible documents based on performance criteria.

It is the opinion of many who have been in the composite pipe business for over 20 years that these are the most important documents ever developed by our industry. They are grossly overdue.

However, while standards are a recognized customer need, standards that are not fully understood by operators, piping engineers and installation teams can be dangerous and misinterpreted. Knowledge of the unique properties of composite materials must be a prerequisite to those using these standards.

Standards that are not fully understood in the hands of the uneducated is a formula for disaster.