



Extreme Waves for Ship and Offshore Platform Design

The Society of Naval Architects and Marine Engineers has published the 60-page technical report Extreme Waves for Ship and Offshore Platform Design compiled by William H. Buckley.

This report recommends that ships and offshore platforms be designed to survive encounters with Type I and Type II extreme waves. The existence and characteristics of these waves and the storm conditions that produce them are established. Photographic and other evidence is presented and analyzed. Current design practice is reviewed, and certain casualties that reveal its failure to ensure survivability are examined. Design and test procedures are proposed. A case is made for replicating Type I and II extreme waves in test tanks, because of the predominance of severe impact loadings and the ensuing time dependent, nonlinear loads and motions. Elements of a first principles design methodology are defined. The development of an appropriate seakeeping design specification is recommended.

This publication is identified as Technical and Research Report R-57. It is issued as a CD and may be ordered through the SNAME web site (www.sname.org) or by contacting Rich Mouk (rmouk@sname.org) or by telephone 201-798-4800, x-3044) for \$50 (\$25 for SNAME members) plus shipping.