

Dynamic Positioning

FMEA Redundancy Verification Tool

GL Noble Denton's Centre of Excellence in Dynamic Positioning has developed a new approach to DP practice – the 'Failure Modes and Effects Analysis (FMEA) Redundancy Verification Tool'. This distinct tool is intended to provide all FMEA end users with the information they require at the design, build and operational phases. The document is created in a modular format which can be expanded by the application of 'bolt on' packages.



Relevant FMEA users in the industry

- Shipyards – for design guidance during build phase
- Classification societies – for proof of compliance with DP rules
- Vessel owners – for assurance that DP system design meets expectations
- Vessel crew – for DP redundancy concept familiarisation and training
- Oil company representatives – for assurance that DP system is adequately reliable

FMEA of Redundant Systems

Satisfying the requirements of these various users can produce a detailed document, which is an excellent reference and training document, but may be too detailed for classification society approval purposes.

Based on forthcoming DNV Guidelines for FMEA of Redundant Systems, the new standard called FMEA-RVT (Redundancy Verification Tool) uses efficient graphical techniques to present the redundancy concept in a readily understood way that helps to streamline the class approval process and provide shipyards with early feedback on design issues.

Information for crew familiarisation and DP Assurance purposes can then be added later as required.