

DEP SPECIFICATION

**VESSEL INTEGRITY, MARINE SYSTEMS -
REQUIREMENTS FOR SELECTION AND OPERATION OF
VESSELS (ENDORSEMENT OF DNV RP-H104)**

DEP 35.00.00.10-Gen.

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DESIGN AND ENGINEERING PRACTICE

DEM1



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PREFACE

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1. INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for the assurance process of marine systems that are critical to vessel integrity and stability, while executing Industrial-Mission-Specific activities. Marine Systems, as referenced in this DEP, are focused on Ballast, Stability and Watertight Integrity.

This DEP is based on the DNV RP-H104 Ballast, Stability and Watertight Integrity – Planning and Operating Guidance, September 2011. This DNV Recommended Practice (RP) is adopted with additional emphasis on key areas and specific requirements.

The requirements of this DEP are applicable to activities of the following vessels:

- Mobile Offshore Drilling Units (MODUs);
- Project / Construction vessels / Mobile Offshore Units (MOUs).

This DEP does not specifically address vessels engaged in logistic support as their primary industrial mission. Such vessels may be able to demonstrate the risks and associated controls by either a structured approach to managing Safety Critical Elements or “generic” Marine Operating Guidelines addressing this specific exposure, relevant to their Industrial Mission.

The structured approach addressed in DNV RP-H104 is relevant and necessary for vessels engaged in certain industrial missions (e.g. Heavy Lift Vessels, MODU's).

This DEP is intended to be used for the initial selection of vessels and their subsequent operation during project execution. It applies to vessels operated or chartered by the Principal or on the Principal's behalf.

This DEP contains mandatory requirements to mitigate process safety risks in accordance with Design Engineering Manual DEM 1 – Application of Technical Standards.

This is a revision of the DEP of the same number dated February 2013; see (1.5) regarding the changes.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorized by Shell GSI, the distribution of this DEP is confined to Shell companies and, where necessary, to Contractors and Manufacturers/Suppliers nominated by them. Any authorized access to DEPs does not for that reason constitute an authorization to any documents, data or information to which the DEPs may refer.

This DEP is intended for use in facilities related to offshore oil and gas production. This DEP may also be applied in other similar facilities.

When DEPs are applied, a Management of Change (MOC) process shall be implemented; this is of particular importance when existing facilities are to be modified.

If national and/or local regulations exist in which some of the requirements could be more stringent than in this DEP, the Contractor shall determine by careful scrutiny which of the requirements are the more stringent and which combination of requirements will be acceptable with regards to the safety, environmental, economic and legal aspects. In all cases, the Contractor shall inform the Principal of any deviation from the requirements of this DEP which is considered to be necessary in order to comply with national and/or local regulations. The Principal may then negotiate with the Authorities concerned, the objective being to obtain agreement to follow this DEP as closely as possible.

1.3 DEFINITIONS

1.3.1 General definitions

The **Contractor** is the party that carries out all or part of the design, engineering, procurement, construction, commissioning or management of a project or operation of a facility. The Principal may undertake all or part of the duties of the Contractor.

The **Manufacturer/Supplier** is the party that manufactures or supplies equipment and services to perform the duties specified by the Contractor.

The **Principal** is the party that initiates the project and ultimately pays for it. The Principal may also include an agent or consultant authorized to act for, and on behalf of, the Principal.

The word **shall** indicates a requirement.

The capitalized term **SHALL [PS]** indicates a process safety requirement.

The word **should** indicates a recommendation.

The word **may** indicates a permitted option.

1.3.2 Abbreviations

Term	Definition
MODU	Mobile Offshore Drilling Unit
DP	Dynamically Positioned
AFI	Agreed For Implementation
AMOG	Activity Marine Operating Guidelines
IRM	Inspection Repair and Maintenance
MOU	Mobile Offshore Unit
ROV	Remotely Operated Vehicle
DnV	Det Norske Veritas

