

NORSOK STANDARD

MARINE OPERATIONS

J-003
Rev. 2, August 1997

Provided by Standard Online AS for rayan 2013-07-21

Please note that whilst every effort has been made to ensure the accuracy of the NORSOK standards neither OLF nor TBL or any of their members will assume liability for any use thereof.

Provided by Standard Online AS for rayan 2013-07-21

CONTENTS

FOREWORD	2
1 SCOPE	3
2 NORMATIVE REFERENCES	3
3 DEFINITIONS AND ABBREVIATIONS	4
3.1 Definitions	4
3.2 Abbreviations	5
4 FUNCTIONAL REQUIREMENTS	6
4.1 General	6
4.2 Safety and Quality Management	6
4.3 Safety Zones and Temporary Limited Areas Corresponding to Safety Zones	6
4.4 Emergency Preparedness	6
4.5 Personnel	7
4.6 Verification of Compliance	7
4.7 Applicability of Regulations	8
5 TECHNICAL REQUIREMENTS	8
5.1 General	8
5.2 Dynamic Positioning	9
5.3 Anchoring Operations	11
5.4 Towing Operations	11
6 DOCUMENTATION	12
7 PLANNING OF OPERATIONS	12
7.1 General	12
7.2 Organisation and Communication	13
7.3 Clearances During Operations Offshore	13
8 EXECUTION OF OPERATIONS	13
9 REPORTING	13
ANNEX A NON ROUTINE MARINE OPERATIONS (INFORMATIVE)	14
ANNEX B LIST OF RECOMMENDED STANDARDS AND GUIDELINES (INFORMATIVE)	25

FOREWORD

NORSOK (The competitive standing of the Norwegian offshore sector) is the industry initiative to add value, reduce cost and lead time and remove unnecessary activities in offshore field developments and operations.

The NORSOK standards are developed by the Norwegian petroleum industry as a part of the NORSOK initiative and are jointly issued by OLF (The Norwegian Oil Industry Association) and TBL (Federation of Norwegian Engineering Industries). NORSOK standards are administered by NTS (Norwegian Technology Standards Institution).

The purpose of this industry standard is to replace the individual oil company specifications for use in existing and future petroleum industry developments, subject to the individual company's review and application.

The NORSOK standards make extensive references to international standards. Where relevant, the contents of this standard will be used to provide input to the international standardisation process. Subject to implementation into international standards, this NORSOK standard will be withdrawn.

Annexes are informative.

1 SCOPE

The standard defines the basic requirements to vessels performing marine operations, to the planning, execution and work associated with such operations on the Norwegian Continental Shelf. The coastal state regulations may contain requirements additional to those listed in this standard depending on the function the vessel is to perform in the petroleum activity.

2 NORMATIVE REFERENCES

The following standards include provisions which, through reference in this text, constitute provisions of this NORSOK standard. Latest issue of the references shall be used unless otherwise agreed. Other recognized standards may be used provided it can be shown that they meet or exceed the requirements of the standards referenced below.

International Conventions:

MARPOL 73/78	International Convention for the Prevention of Pollution from Ships 1973, as modified by Protocol of 1978.
SOLAS 74	International Convention for the Safety of Lives at Sea (SOLAS), as amended.
STWC	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

Regulatory Acts and Regulations:

NMD	Regulations for Mobile Offshore Units
NMD	The Norwegian Ship Control Legislation
NMD	Guidelines and Notes for Mobile Offshore Units

Note: NMD regulations apply to Norwegian flagged vessels and vessels carrying a NMD Letter of Compliance (LOC) only.

International Codes and Guidelines:

ICS/ISF	Guidelines on the Application of the IMO International Safety Management Code
IMO A.469(XII)	Guidelines for the Design and Construction of Offshore Supply Vessels.
IMO A.481(XII)	Principles of Safe Manning.

IMO A.538(13)	Maritime Safe Training of Personnel on Mobile Offshore Units.
IMO MSC/Circ.645	Guidelines for Vessels with Dynamic Positioning Systems
IMO A.741(18)	International Safety Management (ISM) Code.
ISO 9000	International Standard: Quality Management and Quality Assurance Standards.
MODU Code	Code for the Construction and equipment of Mobile Offshore Drilling Units.
IMCA	Guidance Note No IMCA D 010: Diving Operations from Vessels Operating in Dynamically Positioned Mode.

The latest versions of the conventions, codes and guidelines apply.

3 DEFINITIONS AND ABBREVIATIONS

3.1 Definitions

Barge	Non-propelled vessel for transportation of heavy cargo.
Column Stabilised Unit	Unit with the main deck connected to the underwater hull by columns or caissons.
Company	Responsible field operator
Informative References	Shall mean informative in the application of NORSOK standards.
Installation	Offshore installation, loading system, pipeline or other permanently installed subsea facility.
Marine Operation	Any vessel operation conducted offshore.
May	May-requirements are conditional. Alternative solutions can be allowed if the required functional criteria have been met.
Mobile Offshore Unit	Self elevating or column stabilised unit.
Non Routine Operation	A specifically designed marine operation of limited duration, normally carried out in temporary phases.
Contractor	Company responsible for the operation of the vessel.
Recognised Authority control	Flag state or coastal state authority responsible for legislation and concerning vessels or marine activities.

Recognised Classification Society	Det Norske Veritas, Lloyd's, Germanische Lloyds, Bureau Veritas, American Bureau of Shipping. Other IACS member companies may be approved by the company.
Self Elevating Unit	Jack-up.
Service Vessel	A vessel, performing contractual work within one or more service functions which are not directly petroleum related, or defined by a recognised authority not to belong under the coastal state regulatory regime.
Shall	Shall is an absolute requirement. Non compliance with a shall requirement shall be approved by the company.
Ship	Surface unit with displacement type hull or hulls, with its own propulsion.
Should	Should is a recommendation. Alternative solutions having the same functionality and quality are acceptable to the company.
Vessel	Term including ships, barges, column stabilised units or other floating units with or without propulsion, which are subject to registration and classification according to national and/or international maritime regulations.

3.2 Abbreviations

AHTS	Anchorhandling, Tug and Supply Vessel
DNV	Det Norske Veritas.
DP	Dynamic Positioning.
DSV	Diving Support Vessel. The term does not include support vessels for surface oriented diving from light craft.
IACS	International Association of Classification Societies
ICS	International Chamber of Shipping
IMCA	International Marine Contractors Association
IMO	International Maritime Organisation.
ISF	International Shipping Federation
ISM-Code	International Safety Management Code
ISO	International Standardisation Organisation
LOC	Letter of Compliance
NMD	Norwegian Maritime Directorate
NR	Norges Rederiforbund (Norwegian Shipowners' Association)
MOU	Mobile Offshore Unit
MUO	Manned Underwater Operations
QA	Quality Assurance
ROT	Remotely Operated Tool
ROV	Remotely Operated Vessel

4 FUNCTIONAL REQUIREMENTS

4.1 General

An underlying requirement shall be, that to the extent possible, equipment and procedures shall be such as to ensure that no single failure shall result in unnecessary health hazard or life threatening situations for the personnel involved.

The client may impose more stringent requirements or allow deviations from this standard when found appropriate after taking into account factors such as e.g. the characteristics of the job in question, duration of the operation, environmental factors, other operations in the area, etc.

4.2 Safety and Quality Management

A management system shall be established and maintained. The system shall comply with IMO International Safety Management Code, or equivalent. The system shall be verified by valid ISM certificates, if available. Ref. Note.

The system shall be developed and maintained in accordance with the principles laid down in ICS/ISF "Guidelines on the Application of the IMO International Safety Management Code)."

The ISM Code covers the safe management and operation of vessels and pollution prevention. For other parts of the marine operation , e.g. the quality of the work performed, the quality management shall be in accordance with the contractually agreed parts of the ISO 9000 quality standards series.

Note: The ISM Code will be mandatory from 1 July 1998 for passenger ships and oil tankers, chemical tankers, gas carriers, bulk carriers and high speed cargo crafts of 500 gross tons and over. For all cargo vessels and mobile offshore drilling units (MODUs) of 500 gross tons and over, the application date is 1 July 2002.

4.3 Safety Zones and Temporary Limited Areas Corresponding to Safety Zones

Vessels may not pass inside the safety zone surrounding an installation, or a temporary limited area corresponding to a safety zone, without authorization issued by the operator of the installation.

4.4 Emergency Preparedness

Risk analyses shall be carried out for MOUs and DSVs in conformance with regulatory requirements. An emergency preparedness analysis shall form a part of the risk analysis, and plans and procedures shall be developed and implemented to prepare for and respond to potential emergency situations which are likely to represent a danger to personnel, environment or equipment.

The plans and procedures shall include:

- precise description of duties, responsibilities and reporting lines for emergency personnel on board and ashore,
- precise descriptions of emergency equipment, its location and use, and
- notification procedures.

A program of drills to be undertaken, aimed at training and maintaining a competent team to cope with emergencies shall be developed.

Acceptable safety level shall be defined by the company.

4.5 Personnel

4.5.1 Qualifications

All personnel shall be qualified for their assigned work. Qualification requirements shall be specified for job categories of significance to safety.

4.5.2 Safety Training

All personnel on board vessels participating in marine operations shall have valid safety training. For vessels under coastal state regulations (Ref. Clause 5.6.1, table 1) the OLF/NR “Guidelines for Safety and Contingency Training” applies. For shuttle tankers STCW applies.

4.5.3 Alcohol, Narcotics and Drugs

Any use of alcohol, drugs or narcotics are prohibited. Procedures shall be established for personnel which due to medical reasons need medication.

4.5.4 Verbal Communication Skills

Key personnel participating in marine operations shall be able to speak a Scandinavian language or English.

4.5.5 Manning Level

IMO “Principles of Safe Manning” shall apply if the requirements of this code exceeds the flagstate requirements..

4.6 Verification of Compliance

4.6.1 Contractor’s Confirmation

Before a vessel enters into service under a contract the contractor shall confirm that the requirements outlined in this document are complied with.

Any non-compliance with regard to these requirements shall be identified and reported. Necessary corrective actions, with a schedule, shall be proposed. Reasons shall be stated for those non-conformances which are proposed for acceptance. A program for verification of critical systems shall be presented by the contractor.