



NORWEGIAN
SHIPOWNERS' ASSOCIATION



HANDBOOK

FOR

APPLICATION FOR

ACKNOWLEDGEMENT OF

COMPLIANCE

(AoC)

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ENCLOSURES

A Statutory Guidelines

- A1: Guidelines for application for Acknowledgement of Compliance (AoC) for Mobile Drilling Units intended for use in petroleum activities on the Norwegian Continental Shelf. (Unofficial translation)
Issued by the Petroleum Safety Authority Norway (PSA) and the Norwegian Maritime Directorate (NMD) 1.7.2006.
- A2: Use of Regulations relating to Health, Environment and Safety (The HES Regulations) on Mobile Offshore Units – use of maritime legislation/norms.
Unofficial translation of NPD memo issued 19.12.2002
- A3: Technical Requirements to Working Environment and Health Department on Mobile Facilities – Alternative Norms.
Unofficial translation of NPD memo issued 26.6.2003

B Applicable legislation as of 1st July 2006.

C Use of maritime certificates, class and management system

D Technical norms and standards for Mobile Offshore Units

1. INTRODUCTION

1.1 Information about the AoC scheme

A voluntary arrangement with Acknowledgment of Compliance (AoC) for mobile drilling facilities was implemented 1 August 2000. The arrangement was evaluated in 2002 and was made mandatory from 1 January 2004, with a transition period until 1 January 2005. The arrangement is from 1 July 2006 extended to include mobile units for drilling, production, storage and offloading (FPDSO and FPSO), accommodation units and well intervention units.

The arrangement is warranted in “Regulations relating to Material and Information in the Petroleum Activities” (The Information Duty Regulations) Sec. 6, first paragraph, letter m, and described in an additional paragraph in Sec. 17 in “Regulations Relating to Health, Environment and Safety in the Petroleum Activity” (The Framework

An AoC is a decision made by the Petroleum Safety Authority (PSA) that the technical condition of a MOU, the applicant's organisation and management system, are considered to be in compliance with relevant requirements in Norwegian shelf legislation.

The applicant may be the owner of a MOU, or anybody else who will be in charge of the daily operations of such facility when undertaking petroleum activity subject to Norwegian shelf legislation.

An applicant may be any legal body that has entered into or is planning for a drilling agreement with an operating company for operation in areas covered by Norwegian shelf legislation. Such applicant may be the owner, or any organisation or person, e.g. rig owner, operating enterprise or drilling contractor, who according to agreement will be in charge of the operation of the MOU on behalf of the owner.

The AoC is of importance as a basis of documentation for the authorities when they take the matter up for consideration later on. The AoC is of special importance as a basis of documentation for that part of an application for consent that relates specifically to the facility.

An AoC must be obtained in connection with a concrete application for consent to petroleum activity, which implies the application of a MOU, unless an AoC has already been obtained. Such application will consist of two parts: One part which encompasses the location and activity specific matters, and one part which encompasses the unit specific matters, i.e. technical condition, the applicant's organisation and management system.

An AoC may also be applied for on an independent basis.

The purpose of the AoC arrangement is to contribute to improved predictability for the industry's actors concerning a MOU's suitability for activities on the NCS, measured against the relevant legal requirements for health, environment, safety and emergency preparedness. Furthermore, the arrangement shall facilitate efficient processes for the applicants, operators and authorities related to application for consent to petroleum activity on the Norwegian Continental Shelf (NCS).

An application for AoC is an application for the authorities' decision related to a specific MOU's technical condition, the applicant's organisation and management system, measured against the legal requirements that apply for the use of such facility on the NCS.

The AoC is given on basis of the authorities' assessment of the condition at the time of the statement, measured against the legal requirements that apply for use of MOU on the NCS at the time of the decision. Use of such decision in connection with a later application for consent to use, must be seen in the context of changes in the facility's technical condition, the applicant's organisation and management system, after the decision was taken.

The AoC encompasses technical conditions, relevant parts of the applicant's management system, analyses carried out, maintenance programme and plans for upgrading.

The AoC is given on basis of the authorities' follow-up of the applicant and information that the applicant has provided concerning the drilling unit and organisational conditions.

The AoC does not imply any right to commence activities on the NCS. In this connection reference is made to the Recommended Guidelines for Acceptance and operation of mobile drilling facilities holding, or in the application process for, an Acknowledgement of Compliance (AoC) issued by OLF/NR.

The AoC scheme is further described in the Guidelines for application for Acknowledgement of Compliance (AoC) for Mobile Offshore Units intended for use in petroleum activities on the Norwegian Continental Shelf (ref. Enclosure A1)

Further details about the scheme may be found on PSA Internet side including guidelines. http://www.ptil.no/English/Helse+miljo+og+sikkerhet/Tilsyn+og+raadgivning/SUT_hovedsiden.htm

The PSA and NMD have entered into a co-operation agreement on the AoC scheme which is also available on the above referred Internet site.

PSA's Intranet site [acts, rules and regulations](#) contains a subchapter on interpretations which may be useful for AoC applicants.

1.2 Using the Handbook

The Handbook has been developed to contribute to a rational and efficient process at the Applicant's for qualification for and development of the corresponding application for AoC. Additionally, it has been the intention that the Handbook shall represent a supportive element for standardization and simplification of such applications.

The Handbook was developed through a co-operation between NPD/PSA, NMD, NSA, OLF, LO/NOPEF, SAFE, TBL, Lederne and DNV, as part of the work to establish the AoC scheme for MOUs in Norway.

The Handbook has been developed as a guideline for Applicants who want to qualify one or more of their MOUs for operation at the NCS as the basis for an application to PSA for an AoC. The qualification forms the basis for such an application.

The Handbook addresses all relevant issues for the application including the need for documentation to be prepared or referenced

The Handbook contains several enclosures containing information regarding relevant legislation, relevant norms and standards for MOUs. Limitations in the use of the information in the enclosures are included therein.

The Handbook does not introduce any new requirements. The basis for the AoC application will thus at any time be valid regulations, guidelines and any additional clarifications as issued by the PSA.

The Handbook's comments (compliance/deviation etc., recommendations) are per 1.1.06 examples of accepted alternative concepts.

The Handbook must be used in parallel with Guidelines from PSA/NMD as included in Enclosure A1

1.3 Terminology and abbreviations

The following terminology and abbreviations are used herein:

- AoC: Acknowledgement of Compliance
- MOU: Mobile Offshore Unit
- Applicant: Responsible juridical body for operation of MODU who applies for AoC
- Operator: Anyone executing on behalf of the licensee the day to day management of the petroleum activities.
- Management system: Organisation, procedures, processes and resources as needed to ensure compliance with requirements stipulated in Regulations relating to management in the petroleum business of September 3rd 2001
- NPD: The Norwegian Petroleum Directorate
- NSA: The Norwegian Shipowners' Association
- PSA: The Petroleum Safety Authority
 - The PSA is from 1.1.2004 the authority in charge for safety, emergency preparedness and working environment in the petroleum activities, transferred from NPD.
- NMD: The Norwegian Maritime Directorate
 - NMD Regulations in force as pr. 1.7.2006.
- DNV: Det Norske Veritas
 - DNV Offshore Standards (DNV OS) valid as pr. 1.7.2006
- OLF: The Norwegian Oil Industry Association

2. VERIFICATION SYSTEMATICS

2.1 Introduction

Applicant shall verify that the MOU and the operations onboard comply with valid rules and regulations. Detailed requirements to verification are stipulated in the individual regulations and on general terms in TheFramework Regulation Sec. 15. A systematic listing of requirements to verification is not provided in the shelf regulations, and the Applicant must therefore himself identify the various requirements and implement necessary systematics in order to ensure compliance with valid requirements to verification.

Due to the complexity of MOUs and work operations onboard, and the comprehensive rules and regulations enforced, it is important to establish verification systematics that contribute to efficient and correct verification work, creating the necessary trust and confidence both for the Applicant himself as well as for Operator and authorities.

Verification systematics includes the use of methods in a defined extent in order to document that an object complies with given requirements. More specifically, this includes the following for a MOU in AoC context:

Verification object

In addition to the MOU, this term will include relevant parts of the Applicant's organisation and the management system for activities onboard as well as ashore.

Verification references

By this is understood a set of requirements resulting from valid rules and regulations relevant for health, environment and safety in the petroleum activities, as well as internal requirements and norms set forth in the Applicant's own organisation within the same scope.

Verification methods

This is a common denominator for methods and systematic, planned activities conducted under Applicant's supervision to verify and document that the MOU, the organisation and conditions onboard satisfy the requirements to petroleum activities in Norway and are satisfactory with regard to performing the intended activities. As part of the systematics, Applicant shall describe how much, and how frequently, the various verification methods will be used, and what can be achieved by each one.

Qualification

This term is used for the process Applicant performs by interrelating verification object and verification methods to document that the object complies with identified references. Applicant shall further describe how he will ensure that the verification object remains in compliance with rules and regulations as time goes by. The Applicant may split his description of the qualification process into initial qualification and in-service qualification under normal operations.

Documentation

Requirements to documentation are stipulated in valid rules and regulations. There is, however, considerable freedom with regard to documentation form as well as extent of total verification documentation. A well structured and easily available documentation will ease its maintenance. Detailed requirements for the AoC documentation are given in chapter 7 herein.

In the following, the above terms are further detailed from an AoC point of

2.2 Performance of verification activities

ISO defines verification as 'Confirmation by examination and provision of objective evidence that specified requirements are met'. By 'objective evidence' is understood information that can be proven to be true, based on information made available through observation, measurement, testing or other relevant methods. Verification is consequently often performed in retrospect to confirm that the activities in question have been conducted satisfactorily in relation to specified requirements.

In case of complex processes, where it may be difficult to document later that all requirements have been met, verification should be conducted in parallel with the activity to be verified, or the processes leading up to the object to be verified. The same will be the case when time is a critical parameter not allowing for a comprehensive project/activity verification effort between activities due to project execution time constraints.

Examples of verification as parallel process are pre-review of working methods, qualification and review of documentation systematics for a specific process and extensive use of check lists in combination with self checking by those actually conducting the processes.

A large number of complex systems and work processes are involved in the operation of a MODU. An efficient verification systematics will thus require verification to be performed largely as a parallel activity, with limited use of retrospective control and spot checks as supplements.

Both NPD/PSA and other regulatory agencies may conduct supervisory activities such as audits both onboard the MODU and at the Applicant's onshore organisation to verify that the unit and the work onboard complies with requirements to, and conditions for, operation. It should be duly recognized that such supervisory activities, as well as planned supervisory activities carried out by the Operator, may not be considered part of Applicant's planned verification activities. Resulting documentation such as maritime certificates, may, however, be used for documentation of compliance for relevant parts of the unit at the time when the supervisory activities were carried out.

Further description of the use of maritime certificates is given in Enclosure C1.

In the case of newbuildings, Operator's planned verification activities may be considered part of the total verification if this has been agreed between responsible body for the newbuilding activity, e.g. drilling contractor, and Operator. Such integrated verification activities shall then be documented in the project verification plan.

In addition to personnel employed by the Applicant, also suppliers, consultants and classification societies will normally be involved in the verification work. The following

guidelines apply with regard to accepting work carried out by other parties as part of Applicant's verification activities, in addition to what is said above for authorities and Operators:

- Applicant's own activities

All activities that are planned, managed and conducted under Applicant's control may be regarded part of Applicant's verification activities

- Classification

Classification in-service is used to document that the unit and the operations onboard comply with requirements stipulated in the classification rules. The classification work is objective and may be used by all industry players involved such as Applicant, Operator, insurance and authorities when considering technical status of the MOU. The work is performed under contract with Applicant, and may thus be used as part of Applicant's verification activities

- Other consultants

Work performed by consultants/technical specialists under contract with Applicant, may be credited his verification activities if relevant. As per valid rules and regulations, Applicant is responsible for checking that hired consultants possess the necessary qualifications, and that the work is conducted properly in line with relevant requirements and under Applicant's supervision.

- Maritime certificates

(ref. NPD/PSA's letter dated 22.12.2003 regarding NMD's regulations 1999/2003)

According to §3 of the HES Frame Regulation, 'relevant technical requirements contained in rules and regulations etc. which have been issued by the Norwegian Maritime Directorate previously to the date of entry into force of these regulations, together with supplementary classification regulations issued by Det Norske Veritas, or international flag state rules ...' may be used as basis for documentation of compliance under certain circumstances. Recognized classifications society in this connection is, according to NMD regulation 856 of 4th Sept. 1987 (Construction Regulation); Det Norske Veritas and Lloyds Register of Shipping. At the present revision of this AoC Handbook per 2006-01-01, it is NMD's MOU rules with supplementary classification rules issued by the above mentioned class societies (incl. Later amendments) that constitute the valid reference. Maritime certificates may be used in this context, but a gap analysis has to be done to identify gaps between the valid reference and the rules to which the actual unit has been designed and built. Consequence evaluations have to be performed with resulting corrective actions.

General recommendations are given in the PSA's Framework regulation §15 with associated guidelines.

2.3 Recommended verification model

The verification model distinguishes between hull/marine systems and functional systems which are directly related to petroleum activities, such as drilling, production or well intervention systems.

The model assumes that design of hull and marine systems are based on flag state/classification rules which are harmonised with shelf state requirements. This implies that maritime certificates may be used directly in the verification work. For MOUs, NMD's MOU rules with associated DNV 2001 classification rules (DNV-OS, with later amendments) are considered harmonised with PSA's requirements as regards hull and marine systems.

For equipment and systems, directly related to petroleum activities, including relevant parts of the management system, the verification shall be conducted directly towards the requirements stated in applicable PSA regulations. The verification is to be documented with reference to the Applicant's own requirements within the respective systems and areas

3. THE VERIFICATION OBJECT

3.1 Introduction

The Applicant should preferably describe the verification object by means of reference to existing documentation. Applicant should present a list of governing documents for the verification object and indicate what aspects are covered by each one with regard to description of the object.

3.2 Applicant's management system

The following elements should as a minimum be included in Applicant's management system:

- A description of aims applicable to petroleum activities in the areas health, environment, safety and emergency preparedness in the petroleum activities
- An overview of the relevant rules and regulations that are applicable, and a description of how the enterprise keeps itself updated with regard to the consequences of new or amended acts and regulations
- Requirement specifications which supplement statutory requirements in the areas health, environment, safety and emergency preparedness and which also form the basis for planning, execution and follow-up of the petroleum activities.
- Organisation of the enterprise and the activities which are to be implemented, including clarification of responsibilities, authorities and duties.
- A description of, and requirements to, manning and competence
- A description of, and requirements to documentation and information systems
- Procedures, instructions and other routines describing planning and implementation of activities in order to achieve the aims established for the enterprise.
- Procedures or instructions describing the handling of deviations from statutory requirements, as well as deviations from own requirements
- Plans for follow-up and further development of the established management system

The management system should further include a detailed description of the following:

- Responsibilities, authority and communication including lines of reporting
- Possible plans for development and managed change processes
- Requirements to qualifications, competence and training
- Goals and requirements for the operation

- Requirements from authorities
- Company internal goals and requirements
- System for complying with goals and requirements established for the operation and associated documentation
- System for performance and follow-up of analyses and mapping with associated assumptions and resulting requirements such as (see also pt. 4.4):
 - Risk and emergency preparedness analyses for the MOU
 - Work environment mapping
 - Annual safety and work environment program
- System for internal and external audits
- System for maintaining responsibility as Principal enterprise
- System for employee participation
 - Methodology to communicate and make control system comprehensible by all units in the organisation together with methodology to follow up and comply with in practice.
- System for identification, reporting, evaluation and follow-up of deviations
- System for experience transfer
- System for management of contractors, suppliers etc.:
 - Contract reviews/system audits
 - Clarification of requirements to equipment and work operations with associated acceptance criteria
 - Clarification of requirements to verification and assurance of compliance between verification plans of Applicant and supplier
 - Clarification of requirements and system for treating non-conformances
 - Clarification of requirements to HES goals and systematic use of these to improve operations
- Other governing documentation for the MOU including systems and procedures for:
 - Operation and maintenance
 - Emergency preparedness plan
 - Maintaining and fulfilling assumptions for safe operation and conduct of work in accordance with goals and requirements as established for the operation, i.e. operational assumptions

3.3 Technical Issues

3.3.1. Technical description

The Applicant must describe the MOU and all conditions of importance for the intended operations. The description must be included with the application:

- General description of the unit by way of drawings and summaries of main design data, including:
 - Main dimensions
 - Capacities of cranes, positioning equipment and functional systems such as drilling systems
 - Power balance (main/emergency)
 - Evacuation means; number, type, capacity
 - Emergency systems
 - Helicopter deck
- Important assumptions and limitations for use, see also ch. 3.3.2

- Safety systems such as gas and fire detection, fire water/- extinguishing, emergency power etc.
- Technical issues related to individual systems and areas onboard including description of analyses and evaluations carried out. The NSFI system as applied in Enclosure D may conveniently be used with reference to existing, detailed description of each system/area. It is recognized, however, that the NSFI system has an inherent weakness with regard to description of some MOU 'systems' such as arrangement, stability, winterisation and escape routes. This has been compensated in Appendix D through the introduction of 'dummy areas' under Main Group 1. Applicant may refer to technical documentation in other ways if considered useful. Alternatively, compliance may also be documented paragraph for paragraph towards each applicable regulation, but Applicant must then ensure and document that all relevant areas comprised by each paragraph are considered and evaluated.
- Appendix D, NSFI area 3, is divided into 3 parts, one for drilling equipment and systems (3A), one for productions equipment and systems (3B), and one for well intervention equipment and systems (3C). For additional requirements to drilling-, production-, well intervention-, and accommodation units beyond this, reference is made to a note under the column "Alternative to FR". The applicant uses the applicable parts relevant for the unit. By production equipment we mean equipment used exclusively in the units process facility for oil and/or gas where installed.
- Units for well intervention is divided in three categories;
 - Category 1- Light well intervention: Operation is executed without marine riser. Typical activity includes use of "electric"/"smooth" wireline operations for logging, plugging, perforation, equipment-pulling and minor repair.
 - Category 2 – Medium Intervention; Well intervention with high pressure marine riser to the surface, and operations performed through BOP and production piping. Typical activities include use of wireline, coiled tubing or snubbing unit.
 - Category 3 – Heavy Intervention; Workover which may comprise pulling of production piping and possibly abandoning wells. Will usually require complet drilling-BOP with rigid marine riser.

Third party equipment, i.e. equipment owned by other party than Applicant installed onboard.

For definition of third-part equipment, reference is made to Ch.3; "definitions" of OLF/NR document ["Guidelines for acceptance and operation of mobile drilling facilities holding, or in the application process for, an Acknowledgement of Compliance \(AoC\)"](#)

Such equipment may either be considered as part of the location specific part of the application to operate or as part of the AoC application, depending upon conditions of use. The following systematics is recommended:

- Third party equipment intended for long time use onboard, and which is known by the time of application, may be included in the AoC application. If such equipment is later refurbished or replaced, Applicant shall consider new operational and maintenance parameters against the original ones and implement necessary measures to ensure that the original safety level is maintained. Any deviations from original

parameters and associated measures shall be documented and communicated to the Operator.

- If the application includes provision for future third party equipment not known at the time of application, such as well testing equipment or well intervention equipment, Applicant may perform the necessary area and interface evaluations based on a clearly defined basis solution (which for light well intervention includes arrangements for pushing/pulling, lock-pipe, valves, barrier solutions, control systems, MEG (Methyl Ethylene Glycol- injection) and kill arrangements, interface to unit, etc.) with general parameters such as fire and explosion hazards, area classification, amounts of hydrocarbon if relevant, location, structural support/loads etc. If the AoC application addresses conditions for using such equipment, actual equipment must be evaluated in relation to such operational conditions if installed later. Well equipment intended for use in operation (e.g. wireline, logging tools, tractor, plugs etc.) is to be considered as a part of the AoC application.

3.3.2. Operations and limitations

Applicant must describe important conditions for use as well as operational limitations, as well as general operational issues which are not location specific. Examples may be:

- Maximum manning
- Types of operation which may be carried out by the MODU with associated limitations
- Limitations of operations carried out in parallel
- Limitations resulting from risk analyses carried out
- Extreme condition (damage stability, anchor line failure, etc.)
- Temperature and other external, environmentally imposed limitations
- Qualified technology and methods

4. VERIFICATION REFERENCES

4.1 Formal references

Formal references for verification work are given in the shelf state legislation with associated references to other rules and technical norms and standards. A list of valid statutory rules and regulations, as well as other relevant rules for MOUs as of 1.1.2006 is contained in Enclosure B1.

4.2 Requirements to management system

Requirements are stated in laws and regulations applicable for petroleum activities on the Norwegian shelf. To the extent flag and class rules with associated supervisory activities are used as reference for application of AoC, additional requirements are stated in flag and class rules for the area organisation and management.

The most important references in PSA's rules and regulations in this area are:

- *4.2.1 The HES Framework Regulations Sec. 13*

The responsible body shall establish, follow up and further develop a management system which will ensure that applicable requirements as stated by the HES legislation are complied with

- *4.2.2 The Management Regulations*

Overall requirements for management of risk, overview of elements to be managed, recommendations for and requirements to management of resources and processes, requirements to analyses and guidance for measurement, follow up and improvement of the management system are stipulated herein.

In order to ensure that the management system will function as intended and that it is further developed and improved, the system must be followed up in a comprehensive, controlled and systematic manner.

4.3 Requirements to maritime safety management

Valid safety management certificate (SMC) according to the ISM Code, issued by the flag state, is mandatory for MOUs which are defined as 'self propelled' by the respective flag state administration as of July 1st 2002. In addition, the manager of the unit shall have valid document of compliance (DOC).

The Norwegian flag state administration requires valid safety management certificate for all MODUs registered in Norway.

4.4 Requirements to the unit

Technical requirements to the unit and associated references to acknowledged norms and standards are given in the Facilities regulation.

For MOUs registered in a national ship register, technical requirements as set forth by NMD for MOUs may, under certain circumstances, be used as technical reference for issues of maritime character. NMD's requirements are then to be complemented by DNV technical standards for offshore units of 2001 (incl. later amendments), and a maritime type of

operation with periodic controls performed by the classification society is required. Reference is made to §3 of the HES Frame regulation.

Appendix D lists referenced norms and standards from the Facilities regulation, as well as specific references to relevant regulations from NMD and DNV Offshore Standards, in order to facilitate use of the option given by Sec. 3 of the PSA's Framework Regulations. It is important to note that units constructed in accordance with other rules and regulations, including previous revisions of NMD/DNV, must satisfy the NMD/DNV rules and regulations.

Maintenance of the AoC is referred to pt. 6.4 of this Handbook.

Applicant must through development of documentation for managing the activities onboard the unit identify valid requirements, both as stated by the shelf state legislation and own internal requirements, pertaining to the various systems and areas, to be used for follow-up, maintenance and verification of the unit..

The AoC application must confirm that Applicant is familiar with actual requirements and that these have been duly implemented in its management system, by reference to documents reflecting relevant requirements.

4.5 Requirements to analyses and evaluations

The shelf state legislation list a number of requirements to analyses and evaluations to be performed. The results of such shall be duly and systematically implemented, documented and followed up. The analyses form part of the basis for deciding issues relating to health, the environment and safety, and to keep risks well controlled and at the lowest possible level. Further, it is a requirement that the assumptions for the risk analyses shall be followed up systematically.

The flag state legislation will also normally contain requirements to analyses. With reference to Sec. 3 of the PSA's Framework Regulation, analyses carried out to satisfy requirements set forth in NMD's regulations for technical issues of maritime character may, under certain circumstances, be used to document compliance with requirements set forth in the shelf state legislation.

In order to determine governing requirements to analyses and evaluation, thus, the Applicant should systematically map the various requirements and decide which ones are governing for the various systems and areas onboard.

4.6 Work environment

The Framework Regulations Sec. 3 – application of maritime legislation in the petroleum activity, does not apply to work environment issues, Neither with regard to administrative nor technical issues (for instance detailed design of walkways, stairs, ladders, work and common areas, requirements for light, ventilation and noise) as Sec. 3 only relates to technical requirements governed by the Petroleum Act and not the Work Environment Act.

5. VERIFICATION METHODS

5.1 General

Applicant must describe the methods to be applied in the verification work, both initially and during normal operation. The description may include a brief overall description with reference to implemented procedures in Applicant's organisation. Applicant must further describe the purpose, extent and frequency of the various methods to be applied, and what he expects to cover by each method. Applicant is free to format his description on the condition that it is well structured and easily understandable.

Extent, frequency and planned use of verification methods shall be an integral part of the project/unit verification plan.

5.2 Verification methods

Typical verification methods include:

- Audits and supervision carried out by Applicant, such as
 - Technical audits
 - System audits
 - Management audits
 - Supervision of vendors and suppliers
 - Other
- Inspection and survey:
 - Discipline inspections
 - Product inspections
 - Class surveys
 - Inspection by operations manager
 - Inspection by client
- Use of certificates
 - Product/component/quality/environment/system
 - Class
 - Maritime
- Verification during performance of maintenance
 - Control and check versus identified rule requirements
 - Training of personnel and focussing on proper use of the maintenance management system
 - Random testing and control
- Analyses and evaluations as required by for instance
 - Changes to the use of the unit
 - Changed assumptions for operation
 - Change in rules and regulations (gap analyses)
 - Recommendations due to own experience or feedback from similar units or operations
- Other methods such as:
 - Work environment charting (chemical/physical and psychosocial)

- System for reporting unwanted incidents and follow up of such
- System for experience transfer and implementation of corrective actions
- HES audits of own organisation and suppliers'

5.3 Detailed description of selected methods

Applicant will normally be familiar with the methods outlined above. Some of the methods are described in some detail in the following to exemplify the use of them:

5.3.1. Surveys performed by classification society

Class surveys are performed in accordance with systematics defined in the class rules to verify that the conditions and assumptions for issuing the class certificate are satisfied during operation of the unit. A key condition for the class certificate is that the unit and associated equipment is properly maintained, and that the manning is adequate and competent to operate the unit safely.

With regard to the AoC, class surveys can only be taken as a time specific control that important conditions and assumptions for maintaining the class certificate are satisfactory at the time of survey. Applicant is responsible himself for safe operation of the unit and proper maintenance between class surveys. The maintenance is to be properly documented.

If Applicant wants to make use of the option given by The Framework Regulations Sec. 3 to document technical issues of maritime character, a standard class survey will only be sufficient in exceptional cases. Normally, class surveys are performed versus technical acceptance criteria set forth in the rules to which the unit was designed and constructed, whereas Sec. 3 asks for compliance with DNV 2001 Offshore Standards. Additional verification and surveys will therefore normally have to be done.

5.3.2. Use of certificates

Certificates issued by maritime authorities together with associated class certificates may, under certain conditions, be used as part of the documentation basis and as verification of certain requirements being satisfied. Reference is made to Enclosure C 'Use of Maritime Certificates and Class' for more in-depth explanation.

The same applies to maritime certificates/flag state surveys as for classification surveys mentioned in the last paragraph in 5.3.1. Unless certificates are issued according to NMD, with periodical flag state surveys to the same requirements, additional verification and survey has to be done.

5.3.3. Verification through maintenance activities

The condition of the unit may, to a large extent, be verified through proper management of the maintenance activities. This requires that the technical requirements to individual systems and components have been identified and stated as check points in the maintenance management system.

Applicant must describe how verification during maintenance is managed. Applicant's detailed procedures for use of the maintenance management system may be referenced.

5.3.4. Supervision of suppliers

Supplies to MOUs must be managed as part of Applicant's own operation to ensure that shelf state requirements to safety, working environment and technical issues are met. Review of documents and audits are considered adequate verification methods in this respect.

6. QUALIFICATION

6.1 Applicant's management system

It is assumed that Applicant has identified requirements as set forth in valid rules and regulations.

Qualification is the work performed to document that the organisation as well as the management system satisfy given requirements, and that the management system is properly implemented in relevant parts of Applicant's organisation and onboard the MOU.

Applicant must document that the management system satisfies requirements as referred in ch. 4.2 and that necessary measures are implemented to ensure that the system will be in accordance with valid rules and regulations at any time. Internal as well as external audits may be referred as part documentation of this.

Applicant must further document system implementation by referring the activities it has carried out to ensure such implementation and associated verification activities to document that the system is properly used, and functions satisfactorily.

Important elements of the management system are described in ch. 3.2.

6.2 Units in operation in Norway at the time of application for AoC

MODUs in operation in Norway at the time of application are normally assumed to be in compliance with valid rules and regulations.

Applicant must document this in a structured and systematic way, referring to actual verification and compliance work carried out previously

Applicant must thus:

State what methods have been used for verification and follow-up, ref. ch. 5.1 and 5.2.

In particular, areas and systems covered by means of class and maritime certificates should be highlighted.

State plans and commitments for own and 3rd party verifications to be carried out after application for AoC.

A plan for implementation of outstanding corrective actions, if any, resulting from verification work carried out in the time prior to application, shall be enclosed.

Describe when, and how, achievement of results in relation to goals and requirements shall be measured and followed up.

State, by reference to existing documentation, the technical evaluations of the unit that have been carried out.

Valid class and maritime certificates may be referenced.

State systematics for handling new requirements resulting from changes in valid rules and regulations, ref. also ch. 6.4.

Relevant management system procedure may be referred.

State how planned changes on system/component level have been, and will be, evaluated
Reference to implemented maintenance management system and evaluation by class and maritime authorities may be referred if relevant. Where particular evaluations have been performed, these should be referred to by specific document reference.

State how non-planned changes have been, and will be, identified and evaluated.

Enclose a list of identified deviations as well as accepted deviations following evaluation by relevant authorities (PSA, NMD etc.) and classification society, and state a plan for implementation of corrective actions.

Describe the non-conformance system.

An overall assessment of verification and compliance work carried out shall be conducted, including treatment of identified deviations. On this basis, Applicant shall decide whether further work will be required to document compliance with valid rules and regulations.

6.3 New units and units which are not operating in Norway at time of application

This point applies to

- New units contracted for work in Norway
- Units which have not previously operated in Norway
- Units which have previously operated in Norway, but later worked outside without maintaining technical standard and management system as per valid Norwegian rules and regulations

For such units, compliance must be documented systematically for each system onboard.

A possible systematics for this work may be based upon splitting the unit into part systems with associated specification of relevant technical requirements for each particular part system. Enclosure B 'Valid Rules and Regulations' may be used as support for this.

Applicant shall describe the verification and compliance work carried out in correspondence with the above ch. 6.2. A list of identified deviations shall be enclosed.

Maritime certificates and associated class certificates may be used in the same way as described in ch. 5.3.2 and Enclosure C.

Documentation and verification of Applicant's organisation, management system and issues of importance for safety and the working environment shall be as outlined in the above ch. 6.1 and 6.2.

6.4 The in-service operation phase

The responsible body shall ensure that the unit or parts thereof is properly maintained, in order that all intended operations may be performed throughout the lifetime of the unit. Requirements to maintenance are given in the Activity regulation, Ch. IX. Applicant shall document that these requirements are met.

During normal operation, both the unit and the valid rules and regulations will change as a function of time. To ensure compliance with the rules and regulations, as well as with

Applicant's own requirements, all changes to the rules must in principle be identified and evaluated continuously. Applicant must describe or reference the systematics he will use in that respect.

Evaluation of possible consequences for the unit resulting from changes to the rules and regulations is a part of the verification systematics for maintaining AoC. It is recommended to categorize the resulting consequences in three groups:

1. The consequences of the rule change are considered critical for the safety of the unit, either through notification from the authorities, or as a result of Applicant's own evaluations. Modifications or rectifications will have to be carried out by Applicant prior to the occurrence of the safety critical condition. Applicant shall notify the Operator as well as the authorities of implemented actions.
2. The consequences are considered substantial and necessary, but not safety critical. In this case, resulting modifications may be postponed to a later refurbishment of the unit, but not later than to the time of the next renewal of maritime certificates. At such time, the unit is normally at inshore yard which will facilitate a more efficient handling of the necessary upgrade/modification work.
3. The consequences are regarded as non-substantial and resulting changes to the unit, if any, may be implemented as part of normal maintenance or operation work.

Regardless of the conclusions, the consequence evaluation is to be documented.

With regard to changes to the condition of the unit, Applicant must describe how planned changes such as modifications and replacement and upgrade of equipment will be managed. Similarly, Applicant must describe his implemented system for handling non-planned changes such as unexpected wear and tear, corrosion, cracks, equipment breakdown and incidents of any kind.

7. DOCUMENTATION

7.1 General

Applicant must describe what he is applying for and give a description of his management system and technical issues related to the unit. Applicant must further commit himself to ensuring that the unit and his management system as well as own and hired personnel are qualified according to valid rules and regulations within the operational limits stated in the application.

The AoC application is to contain a description of the conditions (elements) described in Ch.7.2 to 7.9

For MODUs, reference is made to IADCs "North West European HSE Guidelines for MODUs" as norm for compilation of application documentation.

7.2 Introduction

Description of what it is applied for, with reference to valid Guideline, ref. Enclosure A1.

7.3 Purpose and schedule

Hereunder

- Name of the unit, including previous names
- Purpose of unit
- Assumptions for use
- General description of the unit
- Status regarding use of the unit at time of application, and the operational history of the unit
- Schedule showing activities and milestones
- Plan for maintenance of described condition

7.4 Applicant's management system

A brief and overall description of Applicant's management system must be given, typically amounting to one half page. Relevant documentation must be referred. The following information should be easily retrievable on request:

- Relevant description of Applicant's basic organisation and organisational conditions related to normal operation and emergencies
- Governing documentation for the unit, including responsibility as Principal enterprise
- Scheme/system for employee participation, including documentation of the employee's participation
- Performed risk analyses with associated assessments and resulting, specific actions which have been decided
- Health, environment, safety and emergency preparedness goals for the units

- Acceptance criteria for risk with associated assumptions
- Information regarding barriers, ref. The Management Regulations Sec. 2
- Plan for performance of necessary risk mitigation measures
- Health, environment, safety and emergency preparedness challenges associated with use of the unit, and planned/decided actions to meet these
- List of deviations from PSA, NMD, other flag states, the State Pollution Control Authority, the Directorate of Health, class, internal requirements
- Description of the system for treatment of non-conformances
- Plans for inspections, audits and similar supervisory activities on the unit
- Plan for implementation of outstanding actions, if any, resulting from verifications previously performed
- List of performed and planned mappings according to the HES Regulations
- System description for treating unwanted incidents
- Requirements to, and actual, personnel qualifications
- List of valid procedures
- Maintenance management system and maintenance philosophy
- Quality assurance requirements to contractors, suppliers and vendors including any third parties
- System for maintenance of third party equipment
- List of relevant certificates which are referred or otherwise used in the application

7.5 Health, environment, safety and emergency preparedness considerations

Additionally to what is said under pt. 6.2, Applicant must describe relevant assessments that have been performed based on risk analyses carried out and associated decisions of importance for the health, environment, safety and emergency preparedness, see also list in pt. 7.4.

As emphasized in pt. 7.4, Applicant must present his plans for implementation of necessary actions.

7.6 Unit specific issues

Requirements to documentation are stated in pt. 3.3.

7.7 List of identified and accepted deviations

Applicant must describe deviations as identified on the basis of relevant rules and regulations, and how these have been treated. Such treatment will normally comprise a plan for implementation of corrective or compensating actions.

The application must contain assessment of the various deviations as carried out with regard to health, environment, safety and emergency preparedness, and a description of possible compensating measures. If already existing documentation and approvals such as maritime certificates are used in the approval process within existing guidelines, the treatment of identified deviations as part of such approvals must also be presented. For example, deviations identified and evaluated by classification society must be handled, approved and

documented by Applicant's organisation if the classification certificates are used as part of the AoC documentation.

Further, the Applicant must list deviations previously accepted by the shelf state authority, maritime authorities or classification societies if such documentation is used in the application for AoC.

7.8 Applicant's own supervision and qualification work

Applicant shall describe the qualification work carried out in line with guidelines provided in chapter 6, both initially and during operation to maintain the standard which forms the basis for the application.

Applicant's own supervision will to a large extent be described through his management system description, ref. ch. 3.2. Additionally, the following information must be submitted:

- Results from internal and external audits and verification activities carried out the latest 12 months prior to the time of application
- Activities to be performed to control that requirements to safety and the work environment are maintained while conducting planned activities with the unit
- Goals and priorities for Applicant's internal as well as external supervisory activities
- Principles of independence in relation to internal as well as external supervisory activities
- Plan for implementing corrective actions, if any, following verification activities performed in the past

7.9 Document references

Applicant must list the governing documents for performance of planned activities with the unit. If Applicant as part of his management process plan to utilize documentation and documentation systems at contractors and vendors, such documents and systems must be referenced, as well as the Applicant's process for verification and acceptance of same.

ENCLOSURE A: STATUTORY GUIDELINES

A1: [GUIDELINES FOR APPLICATION FOR ACKNOWLEDGEMENT OF COMPLIANCE \(AOC\) FOR MOBILE OFFSHORE DRILLING UNITS INTENDED FOR USE IN PETROLEUM ACTIVITIES ON THE NORWEGIAN CONTINENTAL SHELF.](http://www.ptil.no/regelverk/r2002/SUT-veiledningen_n.htm#P1)

http://www.ptil.no/regelverk/r2002/SUT-veiledningen_n.htm#P1

Unofficial Norwegian 2006 version. Official English version not available.

http://www.ptil.no/regelverk/r2002/SUT-veiledningen_e.htm#P1

Official English 2004 version.

Issued by the Petroleum Safety Authority Norway (PSA) and the Norwegian Maritime Directorate (NMD) 1. July 2006)

A2: USE OF REGULATIONS RELATING TO HEALTH, ENVIRONMENT AND SAFETY (THE HES REGULATIONS) – USE OF MARITIME REGULATIONS/NORMS.

Unofficial translation of NPD memo issued 19.12. 2002

A3: TECHNICAL REQUIREMENTS TO WORKING ENVIRONMENT AND HEALTH DEPARTMENT ON MOBILE FACILITIES – ALTERNATIVE NORMS

Unofficial translation of NPD memo issued 26.6. 2003 **ENCLOSURE A1:**

GUIDELINES FOR APPLICATION FOR ACKNOWLEDGEMENT OF COMPLIANCE (AOC) FOR MOBILE DRILLING UNITS INTENDED FOR USE IN PETROLEUM ACTIVITIES ON THE NORWEGIAN CONTINENTAL SHELF

(UNOFFICIAL TRANSLATION)

Issued by the Petroleum Safety Authority Norway (PSA) and the Norwegian Maritime Directorate (NMD) 1st July 2006

Guidelines for application for Acknowledgment of Compliance (AoC) for mobile drilling units intended for use in petroleum activities on the Norwegian Continental Shelf

(Unofficial translation).

Issued by the Petroleum Safety Authority Norway (PSA) and the Norwegian Maritime Directorate (NMD) 1 July 2006.

CONTENTS

1 Introduction

A voluntary arrangement with Acknowledgment of Compliance (AoC) for mobile drilling facilities was implemented 1 August 2000. The arrangement was evaluated in 2002 and has now been decided to be mandatory from 1 January 2004, with a transition period until 1 January 2005.

The arrangement is from 1st July 2006, extended to include mobile units registered in a national ship registry and is used for drilling, production, storage og offloading (FDPSO and FPSO), well intervention and accommodation. The arrangement is warranted in "Regulations relating to Material and Information in the Petroleum Activities" (The Information Duty Regulations) section 6, first paragraph, letter m, and described in an additional paragraph in section 17 in "Regulations Relating to Health, Environment and Safety in the Petroleum Activity" (Framework Regulations).

2 General

An AoC applicant may be the owner of a mobile unit or other which will be in charge of the daily operation of such unit when such unit is participating in petroleum activities placed under Norwegian shelf state jurisdiction.

An applicant may be any legal body that has entered into or is planning for a drilling agreement with an operating company for drilling in areas covered by Norwegian shelf legislation. Such applicant may be the owner, or any organisation or person, e.g. rig owner, operating enterprise or drilling contractor, who according to agreement will be in charge of the operation of the mobile facility on behalf of the owner.

The AoC is of importance as a basis of documentation for the authorities when they take the matter up for consideration later on. The AoC is of special importance as a basis of documentation for that part of an application for consent that relates specifically to the facility.

An AoC must be obtained in connection with a concrete application for consent to petroleum activity, which implies the application of a mobile drilling facility, unless an AoC has already been obtained. Such application will consist of two parts: One part which encompasses the location and activity specific matters, and one part which encompasses the unit specific matters, i.e. technical condition, the applicant's organisation and management system.

An AoC may also be applied for on an independent basis.

It may be pertinent to summarize several AoCs for the same unit if it is to be used for different activities which separately calls for an AoC. E.g if a drilling unit also is to be used as an accommodation unit.

3 The purpose of the AOC arrangement

The purpose of the AoC arrangement is to contribute to improved predictability for the industry's actors concerning a mobile drilling facility's suitability for activities on the NCS, measured against the relevant legal requirements for health, environment, safety and emergency preparedness. Furthermore, the arrangement shall facilitate efficient processes for the applicants, operators and authorities related to application for consent to petroleum activity on the Norwegian Continental Shelf (NCS).

An application for AoC is an application for the authorities' decision related to a specific mobile drilling facility's technical condition, the applicant's organisation and management system, measured against the legal requirements that apply for the use of such facility on the NCS.

The AoC is given on basis of the authorities' assessment of the condition at the time of the statement, measured against the legal requirements that apply for use of mobile drilling facilities on the NCS at the time of the decision. Use of such decision in connection with a later application for consent to use, must be seen in the context of changes in the facility's technical condition, the applicant's organisation and management system, after the decision was taken.

The AoC encompasses technical conditions, relevant parts of the applicant's management system, analyses carried out, maintenance programme and plans for upgrading.

The AoC is given on basis of the authorities' follow-up of the applicant and information that the applicant has provided concerning the drilling unit and organisational conditions.

The AoC does not imply any right to commence activities on the NCS. The AoC shall, however, as referred in section 1, form part of the documentation basis related to application for consent to petroleum activity on the NCS.

4 Rights and duties in connection with the conduct of petroleum activities

Any participant in the petroleum activity has the duty to comply with the legislation within his area of responsibility and to establish an adequate management system in order to achieve this in a controlled and systematic manner.

Within the requirements laid down in relevant legislation, there is liberty to organise the enterprise in the manner the applicant finds serviceable. Tasks can be delegated to other participants, provided that the applicant has ensured himself that these are competent and fully understood about the extent of the task and which requirements that shall be met. The applicant shall thereafter look after that the suppliers of such services conduct the tasks in compliance with the given requirements.

A general duty to manage own activities and to comply with legislation requirements rests on any participant in the petroleum activity. An applicant for AoC that at the time of application does not have any obligation towards this formal system may similarly assume such sharing of tasks and responsibilities. If this is the case, the applicant becomes

- supplier of premises with regard to defining what type of petroleum activity is intended to be conducted by the drilling facility, and thereby which products that need be generated in order to carry out the activity within the framework of the AoC,
- responsible for the further follow-up of the AoC.

In case that the applicant is going to undertake a de facto / independent enterprise, certain preconditions need be in place in order to be capable to control, manage and conduct the drilling operation within the framework laid down by acts and regulations. Furthermore, the applicant shall have to adhere to the drilling agreement entered into with the operator. Essential preconditions are:

- The applicant must realistically be capable of conducting the task.
- The applicant must have a fully adequate management system for his activities.
- The applicant must have at his disposal the required resources and competence by means of his own or contracted personnel and equipment.
- Sufficient and competent personnel at all levels must be available and used throughout all phases of the task.
- Operational responsibility, hereunder the right and duty to undertake necessary technical upgrading of the facility, shall be clearly and unambiguously described.

5 Application procedure

The applicant should in due time contact PSA, which in consultation with NMD will agree on further work, contact and time plans.

6 Contents of the application

In the application, the applicant shall summarise what has been done to qualify the drilling facility in question, account for the most essential decisions for the care of health, environment, safety and emergency preparedness and explicitly commit himself with regard to comply with his duties after the AoC has been given.

When the AoC where the unit is to be used for different type of activity than the existing Aoc covers, it is sufficient to submit relevant docuemtation regarding the new application and refer to previously submitted documentation.

The application should be structured as follows:

A Introduction

Description of the subject for application, with reference to the current guidelines.

B Purpose and plans

Hereunder:

- name of the facility,
- purpose of the facility,
- operational assumptions,
- general description of the facility,
- overview over planned activities and milestones,
- plan for maintenance of the described condition.

C Management system

Hereunder description of:

- relevant parts of the applicant's basis organisation and organisational conditions during normal operation and in emergency situations,
- management and control system established in order to manage the activity related to the drilling facility, possibly by means of references to relevant manuals, handbooks, etc.,
- controlling documents for the drilling facility,
- quality assurance requirements that the applicant has laid down for contractors and sub-vendors (including third party),
- arrangement/system for work force participation.

A statement from the organisations of the employees or their representatives regarding the application, must be attached to the application.

If an organised safety service (working environment committee and safety delegate) has been established, this should be used. For a facility where such safety service has not been established, a statement from the applicant's safety service on another of the applicant's facilities, the applicant's workers' representative or relevant organisations of the employees, may be attached to the application.

The industry, by means of a co-operation between Norwegian Shipowners' Association (NR), Norwegian Confederation of Trade Unions (LO/NOPEF) and Federation of Oil Workers' Trade Union (OFS), may offer consultation and support to new applicants that have not established a safety service, concerning the set up of such statement.

D Assessments

Hereunder:

- safety and working environment objectives, as well as the established for risks for people, environment and material values,
- the most important presumptions for the defined acceptance criteria to be met,
- relevant assessments on basis of results from conducted risk analyses, as well as related decisions with relevance for safety and working environment,
- safety and working environment challenges connected to the use of the drilling facility

and measures (probability reducing and consequence reducing measures, hereunder emergency preparedness measures, of technical, operational and organisational nature) that are to be implemented in order to meet these.

E Technical conditions

A statement of that all technical conditions of relevance to safety and working environment has been assessed and taken a position to.

F Deviations

Description of identified deviations from requirements in acts and regulations that apply for conduct of petroleum activities at the time of the statement, including deviations from maritime legislation that are relevant for the safe conduct of the petroleum activity, and possible plans to deal with these. The application shall contain an assessment of the deviations' relevance to safety and working environment, a description of possible compensating measures and deadlines for their implementation.

In the case that the facility has previously been used on the NCS, and exemptions have been given that are assessed as relevant to the actual AoC application, this shall be clarified. Possible exemptions from legislation in force will appear from the AoC. Hence, the AoC does not imply any other exemptions than those clearly stated.

G The applicant's own supervision

Hereunder description of:

- conclusions from the applicant's internal and external audit and verification activities conducted prior to the application,
- activities that are to be carried out in order to verify that health, environment, safety, and emergency preparedness requirements are maintained during the conduction of the intended activity with the facility,
- objectives and priorities that form the basis for the applicant's internal and external supervisory activities,
- principles of independence laid down as basis for the applicant's planned internal and external supervisory activities.

H Document references

Hereunder:

- list of documents that control the intended activity with the drilling facility. In his controlling documents, the applicant may make use of the documents and the documentation systems that already exist by the various contractors and vendors, provided that these are verified and accepted by the applicant.

As a recognised norm for qualification and documentation of mobile drilling unit in connection with application for AoC, reference is made to OLF/NR "Handbook for application for Acknowledgment of Compliance (AoC)", rev. 03, dated 1.7.2006, or later revisions as may be the case. Reference is also made to the International Association of Drilling Contractors (IADC) "North West European HSE Case Guidelines for MODU's", rev. 00/2003, or later revisions as may be the case.

7 The authorities' handling of applications

Applications will, depending on their contents, be dealt with by PSA and other relevant authorities/institutions. PSA will, in consultation with other authorities that the directorate co-operates with in connection with AoC, in each case decide what extent of case handling is necessary. PSA or authorities that the directorate co-operates with in connection with AoC, may also carry out verification of the documentation, e.g. by visits, etc.

PSA and NMD have, for the purpose of AoCs, entered into a co-operation agreement. The current revision of this agreement will be available in PSA on request from interested participants, companies, organisations, etc.

An application for AoC will normally be handled within three months for units that is to be used for drilling activities, under the condition that the contents and quality of the application are as expected. For units that are to be used for other activities it may be longer handling. For applications for extended AoC where the same unit is to be used for a new activity which requires an AoC, see section 2 above, the handling of the application may be shorter than 3 months.

The above-mentioned expectation implies i.e. that the applicant has carried out an adequate comparison against relevant requirements in the legislation, with relevant analyses and verifications. A complete list of deviations with references to regulatory requirements shall be attached to the application.

PSA issues the AoC when the unit is complete and when the technical condition, the applicant's organisation and management system are considered to be in compliance with relevant legal requirements. The work of the authorities in connection with the AoC will be charged to the applicant according to the same fees per hour/day (24 hours) that at any time appear from the regulations relating to refunding of expenses in connection with regulatory supervision of safety, working environment and resource management in the petroleum activities, laid down by Royal Decree 12 June 1998.

The AoC will be given on basis of the information provided by the applicant in his application in order to document compliance with the basis for the statement. If given conditions or presumptions are not satisfied or complied with, the basis for the AoC no longer applies

ENCLOSURE A2:

USE OF REGULATIONS RELATING TO HEALTH, ENVIRONMENT AND SAFETY (THE HES REGULATIONS) – USE OF MARITIME REGULATIONS/NORMS.

Unofficial translation of NPD memo issued 19.12. 2002

Use of Regulations relating to the Health, Environment and Safety (The HES Regulations) on Mobile Facilities – Use of Maritime Regulations/Norms.

Unofficial translation of NPD memo issued 19.12.2002.

1. Introduction

The purpose of this memo is to describe the main principles of legislation applicable to Mobile Offshore Units (MOUs) operating on the NCS.

2. Application of the new HES legislation for Mobile Offshore Units

2.1 General

The HES legislation (The Framework Regulations, The Management Regulations, The Information Duty Regulations, The Facilities Regulations, The Activities Regulations) applies to all mobile offshore units operating on NCS, irrespective of whether they are registered in foreign - or the Norwegian ship register. Maritime legislation, including NMD's rules and regulations, applies to the extent set forth in the new HES legislation. The main principles of application of maritime legislation are given in The Framework Regulations Sec. 3. Additionally maritime norms are adopted in some regulations, e.g. The Facilities Regulations Sec. 38 and Sec. 63-65. Moreover maritime norms are referenced by the guidelines, e.g. the guideline to The Facilities Regulations Sec. 10.

The implications of such references are described in The Framework Regulations Sec. 18 with guideline. It's emphasized that the norms are not requirements, but selected solutions indicating the authorities recommended level. By applying the recommended norm it would be more easily documented, by the responsible, that the functional requirements in the regulations are fulfilled. The recommended norms give only interpretation aspects for the functional requirements. Another reason for including these references was to provide predictability when The Framework Regulations Sec. 3 do not apply, e.g. application of mobile offshore units not covered by Sec. 3 or when owner/operator choose not to apply Sec. 3.

2.2 Which rules and regulations apply to Mobile Offshore Units?

The Framework Regulations, The Activities Regulations, The Management Regulations and The Information Duty Regulations apply to both new and existing units. In principle the technical requirements in the Facilities Regulations (including maritime legislation / maritime norms) will apply to MOUs when a new application for consent to operate is submitted, refer the Framework Regulations Sec. 3 and the guidelines to the Facilities Regulations Sec. 83. The purpose of this has, from the authorities point of view, been to emphasise that MOUs shall be measured towards the new legislation ensure a dynamic development of the safety standard without requiring extensive technical upgrades. It's hence determined that the MOUs regarded acceptable to operate on the Norwegian Shelf December 31st 2001, are in principle regarded acceptable to operate after the new legislation entered into force. The MOUs are to be measured towards the new legislation

at the first application for consent after January 1st 2002. The responsible has to evaluate the unit towards the new regulations in order to, inter alia, reveal conditions potentially requiring upgrading. If a relevant comparison study towards the last valid set of rules and regulations in force before January 1st 2002 has been carried out, this study may be used to document compliance with additional studies as required to address the changes introduced on January 1st 2002.

2.3 Technical deviations see The Framework Regulations Sec. 59

The application for consent is the formal ‘gateway’ for the use of MOUs in the petroleum activities. The activity is covered by the Petroleum Activities Act Sec. 1-4 Scope of Application. When the authorities consent to deviations for MOUs the first time, this will normally be linked to a specific consent to drilling operations.

The HES legislation allows deviations relating to MOUs (MOU specific deviations) to follow the unit also at new applications for consent.

MOU specific deviations

An AoC will be important in simplifying the documentation in connection with application for acceptance of deviations and their handling.

The arrangement of “MOU specific deviations” implies that such deviations may be given validity beyond the period for which the consent to operate is given. The authorities will evaluate whether a “MOU specific deviation” can be given indefinitely (beyond the time limit for the actual consent to operate) or whether it has to be limited in time. The authorities will inform about any such limitations in time when granting the deviation

The operator does not have to re-apply for deviations which have been granted “indefinite” status, or for deviations given longer validity than the period of the consent to operate applied for. The operator must, however, always evaluate if it is acceptable to operate with the deviations and express this in the application. He must also evaluate if any of the operating or technical assumptions forming basis for the deviation change over time in such a way that it is no longer acceptable to operate with the deviation, ref. The Framework Regulations Sec. 59 and The Information Duty Regulations Sec. 6. The applicant shall inform about previous deviations and associated compensating measures. Such “MOU specific deviations” extending beyond the period of consent to operate are normally communicated to the rig owner with copy to the operator. This applies both for deviations linked to a specific application, and for units in operation.

2.4 Principles for using the new HES legislation on Mobile Offshore Units

The principles for application of the HES legislation on MOUs, applies both when the responsible makes use of The Framework Regulations Sec. 3 regarding maritime legislation and by use of the HES legislation otherwise, including adopted maritime legislation and when maritime legislation is used as recommended norms.

Basic principles

The basis when the authorities are applying the new legislation is that the units considered to be acceptable for use on the NCS on December 31st 2001, also would be acceptable after the new HES legislation came into force. The comprehensive revision of regulations which has been performed was not conducted to alter the inherent HES level in the previous rules and regulations. It was a clear condition when establishing the new legislation not to introduce stricter requirements necessitating technical upgrades of the units, unless considered particularly necessary in special areas. The consequences of

introducing new requirements for any such area have been analysed as part of the economical/technical consequence analysis forming the basis for the legislation.

It is important that the legislation is applied in a reasonable way. Changes with respect to interpretation of the legislation are also to be subject to consequence analysis.

In case of large conversions or modification of MOUs it should be aimed to achieve the level represented by the HES regulations.

For such units the risk potentials should be focused (i.e. major accidents) hence making the MOU industry aiming for the same level as for newbuildings within these areas.

Method for application

When applying for a new consent to operate for a MOU the operator's assessments relating to the actual activity are of great importance. In this connection the operator needs to assess the unit with respect to the planned activity focusing among others on the risk potentials (i.e. major accidents) hence aiming for a level similar to newbuilding within these areas. Further the operator must evaluate any changes in operating conditions relative to the previous evaluations carried out, including well – and location specific aspects which may impact on the risk assessment for new operation. With respect to deviations relating to the MOU (MOU specific deviations) reference is made to 2.3.

With respect to the MOU owner's duties, the AoC handbook gives valuable guidance.

The legislation's requirements with respect to responsibilities as well as requirements to principles for health, environment and safety in The Framework Regulations, combined with the principles for risk reduction in The Management Regulations Sec. 7, will constitute the framework for the interpretation of the HES legislation.

3. Use of maritime legislation, RF Sec. 3

3.1 General

The Framework Regulation's Sec. 3 replaces NPD's letter to the industry of June 1st 1999. A pre-requisite for using Sec. 3 in The Framework Regulation is that the technical requirements set forth in NMD's regulations may be used instead of technical requirements established with reference to the Petroleum Act. In practical terms this means that the responsible body may use alternatives to technical requirements in The Facilities Regulations for maritime areas in according to The Framework Regulation Sec. 3.

3.2 Applicability with regard to type of unit

The paragraph applies to MOUs registered in a national ship register, and which follow a maritime type of operation. The latter implies a calendar based system for periodical control and re-certification, including 5-yearly Renewal Survey., see The Framework Regulations Sec. 3 letter b).

This may apply to drilling units, well intervention units, multipurpose units and some types of production units. The paragraph does not apply to units fixed to the sea bed, floating production units which are permanently located throughout the lifetime of the field, storage units and similar. Such units, operating on a specific field for a long period of time, are not assumed to have the possibility to fulfil the conditions required to follow a maritime type operations and maintenance philosophy.

This implies that a permanently located unit which may follow a maritime type of operation and maintenance may be comprised by The Framework Regulations Sec. 3.

3.3 What type of maritime legislation is required by RF Sec. 3?

The applicable rules and regulations are those set forth by NMD for mobile offshore units valid as of January 1st 2002, i.e. NMD regulations issued in 1999 complemented by Det Norske Veritas (DNV) Offshore Standards within their area of application.

Only the technical requirements of the NMD regulations apply as NCS requirements.

The use of maritime legislation assumes a maritime type of operation and maintenance and is the basis for PSA enforcement of The Framework Regulations Sec. 3.

Administrative regulations such as those relating to entry into force, do not apply.

The Framework Regulations permit the use of international flag state rules with complimentary class rules, which result in a similar safety level.

The responsible body is to document that these represent a similar level of safety as the NMD regulations with complementary DNV-Offshore Standards

3.5 Assumptions and conditions for application of maritime regulations

The presumption for The Framework Regulations Sec. 3 is that the technical requirements in NMD's regulations may be used instead of the technical requirements given pursuant to the Petroleum Law.

The Framework Regulations Sec. 3 only includes matters of maritime character which are not directly linked to the petroleum related function which the unit shall perform.

In principle the following areas are not covered by the paragraph:

- drilling and process equipment
- universal sound and light alarms
- equipment used for transportation of personnel and requirements to transportation of personnel on drill floor
- other provisions on the working environment
- the activities to be carried out in the petroleum activities

Systems and plants within both maritime and petroleum function area.

For systems and plants which are part of a maritime area which will affect the petroleum function, there will be a grey zone with respect to which regulations shall apply. The main enforcement principle shall be that the systems which have their most important function related to the maritime regulations may follow Sec. 3. Plants which have their main function related to the petroleum activity should follow the new HES regulations.

Fire and explosion.

For fire and explosion protection maritime regulations (regulations 31st January 1984 no.227) will normally be sufficient. There may, however, be special conditions related to the petroleum activity which can lead to possible additional requirements to the maritime regulations.

Working environment (new text of 26 June 2003)

The main principle is, as mentioned above, that The Framework Regulation Sec. 3 does not apply to "other provisions on the working environment". The regulations with respect to working environment in this context include all requirements given in and under the provisions of the Working Environment Act. This applies to both requirements to working environment issues such as noise, lighting and ergonomics, and technical requirements to design of access ways, working areas and living quarter in order to ensure the personnel's safety, health and welfare.

The Framework Regulations Sec. 3 Neither does nor applies to requirements under the provision of the health legislation.

The requirements and recommendations in The Facilities Regulations within these areas apply to MOUs.

With respect to The Facilities Regulation Sec. 12 regarding handling of materials and transport routes, access and evacuation routes and Sec. 59-61 regarding living quarters, health department and emergency unit, the NMD's regulations may be applied as alternative norms to Norsok C-001 and C-002 in order to fulfil the requirements on MOUs. Further details with respect to this are given in the interpretation "Technical requirements to working environment and health department on mobile facilities – alternative norms".

When applying NMD's regulations as *norm*, this implies that another concept with the same level with respect to HES may be selected, without this being considered as a deviation from the legislation. The corresponding requirements in the Norsok standards may contribute to specifying the acceptable HES level. Reference is made to the guidelines to The Framework Regulations Sec. 18 regarding documentation.

For the areas of the working environment regulated by The Facilities Regulations Sec. 13 regarding ventilation and indoor climate, Sec. 14 regarding chemicals and chemical exposure and chapter III-II regarding work areas and accommodation spaces, maritime norms can not be used to fulfil the requirements. Norsok S-002 is the most important recommended standard for these areas.

Management System

For MOUs in the petroleum activity the party responsible may apply IMO resolution A.741 International Safety Management Code (the ISM Code) for the part of the management system that is associated with maritime operating conditions, see the guidelines to The Framework Regulation Sec. 3 and Sec. 13.

Marine Systems

For marine systems parts of the NMD's regulations is adopted. This applies to:

The facilities regulations Sec. 38 Ballast Systems

The facilities regulations Sec. 63 Stability

The facilities regulations Sec. 64 Anchoring, mooring and positioning

The facilities regulations Sec. 65 Turret

ENCLOSURE A3

TECHNICAL REQUIREMENTS TO WORKING ENVIRONMENT AND HEALTH DEPARTMENT ON MOBILE FACILITIES – ALTERNATIVE NORMS

Unofficial translation of NPD memo issued 26.6. 2003

Technical requirements to working environment and health department on mobile facilities – alternative norms.
Unofficial translation of NPD memo issued 26.6. 2003

As a consequence of a number of enquiries with respect to interpretation of The Framework Regulation Sec. 3 regarding the application of maritime legislation in the petroleum activity, we have performed a review of relevant maritime norms and compared with the norms (standards) recommended applied in the petroleum legislation.

The general considerations regarding the application of regulations within the working environment area is given in the heading “working environment” in sec. 3.5 of the memo “Use of Regulations relating to the Health, Environment and Safety (The HES Regulations) on Mobile Facilities – Use of Maritime Regulations/Norms.” This may be found in the interpretations to the Framework Regulations Sec. 3 in http://www.npd.no/regelverk/r2002/ram_p3_004_n.htm

The below describes more closely where maritime norms can be applied as alternative to the NORSOK C-001 and C-002.

Access - and transport routes (The Facilities Regulations Sec. 12)

The NMD’s regulations concerning construction of MOUs Sec. 14, 15 and 16 may be applied on MOUs as alternative to the recommended NORSOK standards for access – and transport routes, with the following additions:

It should be emphasized that the sill heights in transport routes should be as low as possible to facilitate the use of trolleys and similar and to avoid manual lifting. Reference is made to The Facilities Regulations Sec. 19 regarding ergonomic design.

At the top of stairs/ladders, as specified in NORSOK S-002 Ch. 5.1.2, self-closing gates should be provided to protect the employees from falling to a lower level, reference is made to the Working Environment Act Sec. 8 regarding the workplace no. 1 letter f.

For evacuation routes (The Facilities Regulations Sec. 12, third paragraph) there are no changes. The norms referenced by the guidelines to this section: NORSOK S-001, Ch. 6.3 and App. D should be used, alternatively DNV OS-A101 for MOUs.

Living quarters (The Facilities Regulations Sec. 59)

NORSOK S-001 and S-002 should be used within the areas covered by the standards, also on MOUs.

The NMD’s regulations concerning construction and equipment of living quarters on MOUs, Sec. 6, 7, 8, 12, 13, 14, 15, 17, and 18 may be used for MOUs as alternative to the recommended NORSOK standards C-001 and C-002, with the following additions:

The requirement to area of single cabin has not been made more strNonet. A single cabin of 6 m² fulfils the requirements as before (ref. the living quarter regulations Sec. 13 no. 3 and NORSOK C-001 Ch. 6.1.1).

Bunk beds should be replaced by ordinary beds (living quarter regulations Sec. 14 no. 2, ref. NORSOK C-001 Ch. 6.1.1). Ref. The Facilities Regulations Sec. 19 regarding ergonomics.

The functional requirements to recreation area in C-001 Ch. 6.2 are considered more supplementary than the living quarter regulations Sec.15 no.3-5, and should be used as reference.

Health department (The Facilities Regulations Sec. 60)

The NMD's regulations concerning construction and equipment of living quarters on MOUs Sec. 16 may be applied for health department on MOUs as alternative to the relevant parts of the recommended NORSOK standard C-001 Ch. 6.6.

Emergency unit (The Facilities Regulations Sec. 61)

The living quarter regulations do not contain any requirements to emergency unit. NORSOK C-001 Ch. 6.6 should be applied as given in the guidelines to The Facilities Regulations Sec. 61

ENCLOSURE B:

VALID RULES/REGULATIONS AS OF 1.7.2006

(All hyperlinks to NMD pages are in Norwegian as English translations does not exist electronically)

Petroleum Safety Authority (PSA)

The most relevant acts/regulations, in connection with AoC, for the petroleum activity on the NCS within the Petroleum Safety Authority's (PSA's) sphere of authority as of 01.06.2005. For the complete overview reference is made to [PSA's home pages](#).

http://www.ptil.no/regelverk/r2002/frame_n.htm

ACTS

Act 29 November 1996 no 72 relating to [petroleum activities](#).

http://www.npd.no/regelverk/r2002/Petroleumsloven_n.htm

Sist endret ved lov 14. desember 2001 nr 98, lov 28 juni 2002 nr 61, lov 20 desember 2002 nr 88 og lov 27 juni 2003 nr 68.

Act 4 February 1977 no 4 relating to [worker protection and working environment etc.](#)

http://www.npd.no/regelverk/r2002/Arbeidsmiljoeloven_n.htm

Last amended by Act 26 March 2004 no 15 and 2 July 2004 no 66.

ROYAL DECREE

Regulations relating to **health, environment and safety** in the petroleum activity
([The Framework Regulations](#))

http://www.npd.no/regelverk/r2002/Rammeforskriften_n.htm

Laid down by Royal Decree 31 August 2001, last amended 19 December 2003.

Veiledning til forskrift om [helse, miljø og sikkerhet](#) i petroleumsvirksomheten.

Fastsatt 1. Yesnuar 2002. Oppdatert 1. Yesnuar 2005.

Regulations relating to [safety delegates and working environment committees](#).

http://www.npd.no/regelverk/r2002/Verneombudsforakriften_n.htm

Laid down by Royal Decree 29 April 1977, last amended by Royal Decree 20. December 2002 no 1621

JOINT REGULATIONS

Regulations relating to **management** in the petroleum activities
([The Management Regulations](#))

http://www.npd.no/regelverk/r2002/Styringsforakriften_n.htm

Issued by NPD 3 September 2001, amended 16 December 2002.

Last ameded 21. December 2004.

Guidelines to regulations relating to [management](#) in the petroleum activities.

1 January 2002, updated 1 January 2005.

Regulations relating to **material and information** in the petroleum activities
([The Information Duty Regulations](#))

http://www.npd.no/regelverk/r2002/Opplysningspliktforskriften_n.htm

Issued by NPD 3 September 2001, last amended 21 December 2004.

Guidelines to regulations relating to **material and information** in the petroleum activities.
1 January 2002, updated 1 January 2005.

Regulations relating to design and outfitting of **facilities** etc. in the petroleum activities.

(The Facilities Regulations)

http://www.npd.no/regelverk/r2002/Innretningsforskriften_n.htm

Issued by NPD 3 September 2001, last amended 21 December 2004.

Guidelines to regulations relating to design and outfitting of **facilities** etc. in the petroleum activities

http://www.npd.no/regelverk/r2002/Innretningsforskriften_Veiledning_n.htm

1 January 2002, updated 1 January 2005

Regulations relating to conduct of **activities** in the petroleum activities

(The Activities Regulations)

http://www.npd.no/regelverk/r2002/Aktivitetsforskriften_n.htm

Issued by NPD 3 September 2001, last amended 22 February 2005

[Appendix 1](#) to the Activities Regulations - Requirements for Environmental Monitoring of the Petroleum Activities on the Norwegian Continental Shelf

[Appendix 2](#) to the Activities Regulations - Conditions for the Use and Discharge of Offshore Chemicals

Guidelines to regulations relating to conduct of **activities** in the petroleum activities

1 January 2002, updated 1 January 2005

Norwegian Maritime Directorate (NMD)

Regulations relevant for MOUs (2005)

See also <http://www.sjofartsdir.no/forskrifter.html>

VI-1: Survey and certification

Regulations concerning notification of newbuilding, survey and **certification** etc. of mobile offshore units. ([Sertifiseringsforskriften](http://www.lovdatab.no/for/sf/nh/xh-19870904-0855.html) <http://www.lovdatab.no/for/sf/nh/xh-19870904-0855.html>)

Issued 4 September 1987, last amended 28 June 2004.

VI-2: Safety management system and risk analysis

Regulations concerning a **Safety Management System** for mobile offshore units.

([Sikkerhetsstyringsforskriften](http://www.lovdatab.no/for/sf/nh/xh-19990302-0394.html); <http://www.lovdatab.no/for/sf/nh/xh-19990302-0394.html>), 2.

Issued 2 March 1999, last amended 11 April 2003

Regulations concerning **risk analyses** for mobile offshore units.

<http://www.lovdatab.no/for/sf/nh/xh-19931222-1239.html>),

Issued 22 December 1993, last amended 11 April 2003.

VI-3: Construction

Regulations concerning **construction** of mobile offshore units.

([Byggeforskriften](http://www.lovdata.no/for/sf/nh/xh-19870904-0856.html); <http://www.lovdata.no/for/sf/nh/xh-19870904-0856.html>),

Issued 4 September 1987, last amended 11 April 2003.

Regulations concerning precautionary measures against **fire** and explosion on mobile offshore units.

([Brannforskriften](http://www.lovdata.no/for/sf/nh/xh-19840131-0227.html); <http://www.lovdata.no/for/sf/nh/xh-19840131-0227.html>), *Issued 31 January 1984, last amended 28 January 2004.*

Regulations concerning **anchoring**/positioning systems on mobile offshore units

([Ankringsforskriften](http://www.lovdata.no/for/sf/nh/xh-19870904-0857.html); <http://www.lovdata.no/for/sf/nh/xh-19870904-0857.html>), *Issued 4 September 1987, last amended 28 June 2004.*

Regulations concerning **stability**, watertight subdivision and watertight/weathertight closing means on mobile offshore units.

([Stabilitetsforskriften](http://www.lovdata.no/for/sf/nh/xh-19911220-0878.html); <http://www.lovdata.no/for/sf/nh/xh-19911220-0878.html>), *Issued 20 December 1991, last amended 11 April 2003.*

Regulations concerning **ballast systems** on mobile offshore units. ([Ballastforskriften](http://www.lovdata.no/for/sf/nh/xh-19911220-0879.html);

<http://www.lovdata.no/for/sf/nh/xh-19911220-0879.html>),

Issued 20 December 1991, last amended 11 April 2003.

Regulations concerning the construction and equipment of **living quarters** on mobile offshore units,.

([Boligforskriften](http://www.lovdata.no/for/sf/nh/xh-19861217-2318.html); <http://www.lovdata.no/for/sf/nh/xh-19861217-2318.html>),

Issued 17 December 1986, last amended 11 April 2003.

Regulations concerning **helicopter decks** on mobile offshore units.

([Helidekkforskriften](http://www.lovdata.no/for/sf/nh/xh-19931222-1240.html); <http://www.lovdata.no/for/sf/nh/xh-19931222-1240.html>), *Issued 22 December 1993, last amended 28 June 2004.*

Regulations concerning **potable water** systems and potable water supply on mobile offshore unit.

([Drikkevannsforskriften](http://www.lovdata.no/for/sf/nh/nh-19870904-0860.html); <http://www.lovdata.no/for/sf/nh/nh-19870904-0860.html>),

Issued 4 September 1987, last amended 11 April 2003.

Regulations concerning field moves and **towing** of mobile offshore units and concerning towing system and mooring of supply ships at such units.

([Slepeforskriften](http://www.lovdata.no/for/sf/nh/xh-19861217-2319.html); <http://www.lovdata.no/for/sf/nh/xh-19861217-2319.html>),

Issued 17 December 1986, last amended 11 April 2003.

VI-4: Equipment

Regulations concerning **life-saving appliances** and evacuation on mobile offshore units. ([Redningsforskriften](http://www.lovddata.no/for/sf/nh/xh-20030411-0492.html); <http://www.lovddata.no/for/sf/nh/xh-20030411-0492.html>), *Issued 11 April 2003, last amended 28 June 2004.*

Regulations concerning **deck cranes**, etc. on mobile offshore units. ([Kranforskriften](http://www.lovddata.no/for/sf/nh/xh-19860113-0031.html); <http://www.lovddata.no/for/sf/nh/xh-19860113-0031.html>),

Issued 13 January 1986, last amended 11 April 2003

Regulations concerning the installation and use of **radio** equipment on mobile offshore units. ([Radioforskriften](http://www.lovddata.no/for/sf/nh/xh-19931216-1200.html); <http://www.lovddata.no/for/sf/nh/xh-19931216-1200.html>), *16. desember 1993.*

Issued 16 December 1993, last amended 17. December 2004.

Regulations concerning conditions for periodical maintenance of float-free **emergency position-indicating radio** beacons ([Nødpeilesenderforskriften](http://www.lovddata.no/for/sf/nh/xh-20021112-1314.html); <http://www.lovddata.no/for/sf/nh/xh-20021112-1314.html>),

Issued 12 November 2002, last amended 17. December 2004.

Regulations concerning **welding equipment** etc. for the welding gases acetylene and oxygen in mobile offshore units. ([Sveiseforskriften](http://www.lovddata.no/for/sf/nh/xh-20030411-0480.html); <http://www.lovddata.no/for/sf/nh/xh-20030411-0480.html>),

Issued 11 April 2003

Regulations concerning **diving systems** on mobile offshore units. ([Dykkeforskriften](http://www.lovddata.no/for/sf/nh/xh-20030411-0491.html); <http://www.lovddata.no/for/sf/nh/xh-20030411-0491.html>),

Issued 11 April 2003.

VI-5: Operation.

Regulations concerning the **operation** of mobile offshore units. ([Driftsforskriften](http://www.lovddata.no/for/sf/nh/xh-19870904-0858.html); <http://www.lovddata.no/for/sf/nh/xh-19870904-0858.html>),

Issued 4 September 1987, last amended 28 June 2004.

Regulations concerning the form and keeping of **ships' log** books. ([Dagbokforskriften](http://www.lovddata.no/for/sf/nh/xh-19920915-0693.html); <http://www.lovddata.no/for/sf/nh/xh-19920915-0693.html>),

Issued 15 September 1992, last amended 4 February 2005.

Regulations concerning the **manning** of mobile offshore units.

([Bemanningsforskriften](http://www.lovddata.no/for/sf/nh/xh-19960401-0319.html); <http://www.lovddata.no/for/sf/nh/xh-19960401-0319.html>)

Issued 1 April 1996, last amended 11 April 2003.

Regulations concerning **towing assistance** for drilling platforms and other mobile units of similar construction when navigating in Norwegian territorial and inner waters.

([Slepeassistansforskriften](http://www.lovddata.no/for/sf/nh/xh-19780206-9131.html); <http://www.lovddata.no/for/sf/nh/xh-19780206-9131.html>),

Issued 6 February 1978, last amended 11 April 2003.

Regulations for the use of **radioactive sources** on board mobile offshore units.

([Radioaktive kilder](http://www.lovddata.no/for/sf/nh/xh-19860113-0032.html); <http://www.lovddata.no/for/sf/nh/xh-19860113-0032.html>),

Issued 13 January 1986, last amended 11 April 2003.

Regulations for **preventing collisions at sea**.

([Sjøveisreglene](http://www.lovdatab.no/for/sf/nh/nh-19751201-0005.html); <http://www.lovdatab.no/for/sf/nh/nh-19751201-0005.html>),

Issued 1 December 1975, last amended 4. February 2005.

VI-6: Environment

Regulations concerning the prevention of **pollution** from the maritime operation of mobile offshore units. ([Forurensningsforskriften](http://www.lovdatab.no/for/sf/nh/xh-19830722-1331.html); <http://www.lovdatab.no/for/sf/nh/xh-19830722-1331.html>),

Issued 22 July 1983, last amended 11 April 2003.

Regulations concerning the prevention of **pollution from ships**, etc.

([Forurensning fra skip](http://www.lovdatab.no/for/sf/md/md-19830616-1122.html); <http://www.lovdatab.no/for/sf/md/md-19830616-1122.html>),

Issued 16 June 1983, last amended 30 June 2003.

Regulations concerning **environmental declaration** in connection with environmental differentiation for ships and mobile offshore units.

([Miljødeklarasjonsforskriften](http://www.lovdatab.no/for/sf/nh/nh-20001128-1194.html); <http://www.lovdatab.no/for/sf/nh/nh-20001128-1194.html>),

Issued 28 November 2000, last amended 4 June 2002.

Regulations concerning the **reporting of accidents** at sea.

([Hendelser – rapportering](http://www.lovdatab.no/for/sf/md/md-19870402-0231.html); <http://www.lovdatab.no/for/sf/md/md-19870402-0231.html>), 2. april 1987.

Issued 2 April 1987, last amended 2. February 2004.

Regulations concerning **notification of acute pollution** or danger of acute pollution

([Akutt forurensning – varsling](http://www.lovdatab.no/for/sf/md/xd-19920709-1269.html); <http://www.lovdatab.no/for/sf/md/xd-19920709-1269.html>),

Issued 9 July 1992, last amended 31 August 2001.

Regulations concerning **limitation of pollution** ([Forurensningsforskriften](http://www.sft.no/lover/forurensningsforskriften/);

<http://www.sft.no/lover/forurensningsforskriften/>) 1 July 2004.

VI-7: Protective measures, working conditions, health etc.

Regulations concerning **protective, environmental, and safety measures** on mobile offshore units. ([VMS-forskriften](http://www.lovdatab.no/for/sf/nh/xh-19870904-0859.html); <http://www.lovdatab.no/for/sf/nh/xh-19870904-0859.html>),

Issued 4 September 1987, last amended 11 April 2003.

Regulations concerning **medical supplies** on ships.

([Skipsmedisinforskriften](http://www.lovdatab.no/cgi-wift/ldles?doc=/sf/sf/sf-20010309-0439.html); <http://www.lovdatab.no/cgi-wift/ldles?doc=/sf/sf/sf-20010309-0439.html>),

Issued 9 March 2001, last amended 13 December 2002

Regulations concerning **supervision of maritime service**.

([Kontroll – maritim tjeneste](http://www.lovdatab.no/for/sf/nh/xh-19881125-0940.html); <http://www.lovdatab.no/for/sf/nh/xh-19881125-0940.html>),

Issued 25 November 1988.

Regulations concerning the scope of **the Seamen's Act** ([Sjømannslovens virkeområde](http://www.lovdatab.no/for/sf/nh/xh-19860131-0222.html);

<http://www.lovdatab.no/for/sf/nh/xh-19860131-0222.html>),

Issued 31 January 1986, last amended 27 November 1992

VI-8: Qualification requirements

Regulation concerning **qualification requirements** and certificate rights for personnel on board Norwegian ships, fishing vessels and mobile offshore units.

([Kvalifikasjonsforskriften](http://www.lovdatabasen.no/for/sf/nh/xh-20030509-0687.html); <http://www.lovdatabasen.no/for/sf/nh/xh-20030509-0687.html>),

Issued 9 May 2003, last amended 18 October 2004.

Directorate for Civil Protection and Emergency Planning

Regulations concerning **maritime electrical installations.**

http://www.dsb.no/dynaweb/dbelover/lovomtilsynmedelektriskeanlegg/@Generic_BookTextView/9675

4. December 2001

IMO MODU Code.

Code for the Construction and Equipment of Mobile Offshore Units - 1989

(Resolution A649(16) adopted on 19 October 1989 by the IMO Assembly at its sixteenth session)

Recommend all authorities to effectuate “The code” by 1 Mai 1991 at the latest.

With amendments of 1991 (MSC/Circ.561), 1994 (MSC.38(63)) and 1995 (A.830(19))

Both code's are developed as an international standard for Mobile drilling units, to achieve a safety level for these units and the personnel onboard, equivalent to that SOLAS 1974 (with amendments) and ICLL (1966) gives a conventional merchant vessel in international trade.

Some maritime authorities use “The code” as their own rules, for example Panama and Liberia.

DNV Rules

[Rules for Classification of Offshore Units](#)

Offshore Service Specifications

OSS-101: [Rules for Classification of Offshore Drilling and Support Units](#)

Offshore Standards

OS-A101: [Safety Principles and Arrangement](#)

OS-B101: [Metallic materials](#)

OS-C101: [Design of Offshore Structures, General](#)

OS-C102: [Structural Design of Offshore Ships](#)

OS-C103: [Structural Design of Column-Stabilised Units \(LRFD method\)](#)

OS-C104: [Structural design of Self-Elevating Units \(LRFD method\)](#)

OS-C201: [Structural Design of Offshore Units \(WSD method\)](#)

OS-C301: [Stability and Watertight Integrity](#)

OS-C401: [Fabrication of Offshore Structures](#)

OS-D101: [Marine and Machinery Systems and Equipment](#)

OS-D201: [Electrical Systems and Equipment](#)

OS-D202: [Instrumentation and Telecommunication Systems](#)

OS-D301: [Fire Protection](#)

OS-E101: [Drilling Plant](#)
OS-E301: [Position Mooring](#)
OS-E401: [Helicopter Decks](#)

Recommended Practices

RP-A201: [Standard Documentation Types](#)
RP-A202: [Documentation of Offshore Projects](#)

ENCLOSURE C:

USE OF MARITIME CERTIFICATES and CLASS

C: Use of Maritime Certificates and Class

General

NB This enclosure was originally written as a clarification to NPD's Safety Regulations section 20 and NPD's letter of 1st June 1999 concerning "Use of Flag State's Rules as recognised standards in the petroleum activity" as well as Guidance to the Scheme for Acknowledgement of Compliance (AoC).

The new regulations represented by The Framework Regulations §3 does not use the terminology "maritime certificates", but as the content of this enclosure is of general value and specially as the clarifications of alternative A, B, C and D still may be used, the enclosure has been kept as original only with correction of regulatory references.

Internationally accepted maritime certificates have their basis in the UN's International Maritime Organisation's (IMO) conventions, which are ratified by member states/flag-state authorities. The most central convention is SOLAS "Safety of Life at Sea". This describes principles and arrangement and has a number of detailed requirements for a vessel, which are to be considered as minimum requirements. In parallel to SOLAS, IMO has produced a Mobile Offshore Drilling Unit (MODU) Code, based on the same safety level as SOLAS, but which also addresses safety considerations which are specific to mobile offshore units used for, or in connection with, offshore drilling. The most common flag states for such mobile offshore units are Bahamas, Liberia, Panama, Bermuda, and in addition come the UK, US and Norway. The national flag state authorities are free to specify requirements which exceed IMO's minimum requirements (for example the Norwegian Maritime Directorate has not ratified the MODU Code, but has developed a specific set of regulations ("the Red Book") for MODUs, which initially was based on SOLAS. The NMD regulations and the MODU Code are currently converging with respect to requirements. Flag State authorities will often not have sufficient competence/capacity for the necessary technical engagement, so that typically design evaluation, construction and in-service follow up may be delegated to a recognised Classification Society. The Flag State Authority carries out the formal issue of the necessary final certificates.

Maritime Certificates and other existing documentation

Maritime Certificates are defined here as the formal final documentation issued by the Flag State authority. These represent a formal confirmation from the responsible national authorities' competent agencies that specific requirements are complied with. They are issued following a selective evaluation of premises for organisation and technical content related to construction and fabrication/installation, at initial stage and periodically during operation. The maritime certificates are based on valid class certificates, and assume that bodies with the necessary competence and technical tools have carried out the work.

Typical Maritime Certificates are :

- ◆ For Norwegian-registered mobile offshore units the NMD issue the following certificates :

- Mobile Unit Certificate of Fitness (based on the “Red Book”)
- Mobile Unit Safety Construction Certificate
- Mobile Unit Safety Equipment Certificate
- Mobile Unit Load Line Certificate
- Mobile Unit Safety Radio Installation Certificate
- International Oil Pollution Prevention Certificate (IOPP Certificate)
- Safety Management Certificate (SMC)

- ◆ For foreign-registered mobile offshore units the following typically apply :

- Mobile Offshore Drilling Unit Safety Certificate (MODU Code Certificate)
- Mobile Offshore Unit Safety Certificate (based on MODU Code, but intended for units which do not carry out drilling, for example Accommodation Units)

Based on 1979 / 1989 MODU Code (as amended)

alternatively

- Cargo Ship Safety Construction Certificate
- Cargo Ship Safety Equipment Certificate
- Cargo Ship Safety Radio Installation Certificate

Based on SOLAS 1974 / 1978 (as amended)

additionally for both alternatives

- International Load Line Certificate

Based on International Load Line Convention 1966 (as amended)

- International Oil Pollution Prevention Certificate

Based on MARPOL 73/78 (as amended)

- International Tonnage Certificate

Based on International Tonnage Convention 1969 (as amended)

Further, the requirements of the CONVENTION ON THE INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA, COLREG 1972, are covered by the MODU Code Certificate, or alternatively the Cargo Ship Safety Equipment Certificate.

In addition to these comes compliance with the International Safety Management – ISM – Code which will become obligatory for mobile offshore units (self propelled) from 2002.

DNV issue the following class certificates which can be used in connection with the AOC

Basis design notations:

- + 1A1 Column-stabilised Unit,
- + 1A1 Self-elevating Unit
- + 1A1 Ship-shaped Unit
- +1A1 Mobile Offshore Unit
- +1A1 Oil Production and/or Storage Unit

In addition service notations:

- Drilling
- Well Intervention I/II
- Accommodation
- Crane
- Offshore Support

which represent the main class notation,
with the following additional class notations, as relevant

- DRILL
- E0
- AUTRO
- POSMOOR
- CRANE
- HELDK

Class can, in addition, normally issue the following certificates :

- Cargo Gear Certificate, ILO Convention No 152
- Certificate for Personnel Lifts
- Oxygen and Acetylene Installation Certificate
- Navigational Light Certificate

- ISM

Other Classification Societies have equivalent class certificates which under given assumptions can be used as part of the compliance documentation.

Procedure for establishing of technical basis – maritime certificates

The objective is to establish the technical basis and area of applicability for the maritime certificates such that it can be demonstrated effectively and unambiguously how the maritime certificates contribute to document compliance with the shelf state's intentions and requirements. These intentions and requirements address areas where from experience there has been a need to ensure that necessary measures are carried out and maintained. The common denominator for the maritime certificates is safety and a reasonable internationally agreed content. This content, format and areas covered, may vary among other things as a function of the timing and the circumstances which led up to the actual convention/rule.

For the AoC process it is the current Norwegian shelf state requirements which form the basis. With regard to maritime certificates and other existing documentation, it will be NMD's regulations, complemented by DNV's applicable rule requirements of 2001 (incl. later amendments), which will form the reference basis. This will deviate in a number of areas from the "internationally agreed content" reflected above.

For those areas covered by the flag state's regulations with associated class rules, it remains, as previously stated, the responsibility of the Owner to verify that the operational conditions on which the certificates are based match the actual operational conditions, and also to detail exactly which areas/systems are covered by maritime regulatory supervision as the verification method. Since this supervision is managed by a flag state and others through delegation, it is not the responsibility of the Owner to follow up how the supervision is carried out, reference also what is stated in Item 2 that the supervision itself can not be credited as part of the Owners verification.

If the classification society carry out a combined supervision for the Owner and the flag state by delegation the supervision may anyhow be used by the Owner as verification and hence the Owner has to follow up how the supervision is carried out. This because the flag state considers the supervision as "flag state supervision" and as such have the possibility of verification by their own supervision.

For areas covered by additional class notations, which are not covered by flag state delegation, the situation will be different. The work carried out by Class may replace the Owner's work as mentioned in the method discussion. In such a case it is the Owner's responsibility to ensure that both technical content and execution of the service meet those requirements the Owner has identified and which he wishes to give credit to in the total verification work.

It should be specifically mentioned that class notations which include interpretation of the shelf state's regulations, such as for example DRILL (N), should be interpreted in co-operation with PSA and must clearly

specify which regulations are intended covered, for example technical issues in a more specific version/revision of the rules.

Important assumptions are therefore :

- Overview over and knowledge of, the premises for, and content of, IMO conventions, class rules, and Norwegian shelf state requirements.
- System understanding and detailed knowledge concerning the actual arrangement, i.e. components in the system, interfaces, function and implications for the unit for a given function
- Quickly available information , which ideally should provide :
 - overview of the relevant certificates, with link to
 - a specific certificate's concrete scope and content (based on reference year), and
 - a coupling between AoC reference basis and a specific certificate, viewed with respect to function, physical system or object
- suitable report format in order to document compliance

In this respect it is natural to differentiate between the following combinations:

Alternative	Flag	Class
A	Norwegian	DNV
B	Norwegian	Non- DNV
C	Non- Norwegian	DNV
D	Non- Norwegian	Non- DNV

The following procedure may be used to identify requirements which are taken care of by maritime and class certificates:

Alternative A (Norwegian Flag / DNV Class)

Technical regulations are given in the Norwegian Maritime Directorate's Regulations for Mobile Offshore Units, Part VI. Currently the regulations cover the following areas:

- NMD's Technical Regulations (Alternative A)
1. Fire and Explosion
 2. Diving systems
 3. Deck cranes
 4. Towing
 5. Living quarters
 6. Welding equipment
 7. Construction
 8. Anchoring/positioning systems
 9. Potable water system
 10. Lifesaving appliances
 11. Stability
 12. Ballast systems
 13. Radio equipment
 14. Helicopter decks
 15. MOUs with Production Plants

With the exception of item 2 and 15 (where PSA is governing e.g. for the Production Plant itself) the areas/systems which are the subject of the regulations may be covered by Norwegian maritime certificates.

This is on condition that:

- operational assumptions or limitations on which the maritime certificate is based are made clear
- the maritime certificate is to be issued with reference to NMD's 2003 Regulations for Mobile Offshore Units
- any relevant safety-related consequences of operation which are outside these terms of reference are specifically evaluated
- such consequences (in accordance with normal practice) are identified through risk and emergency preparedness analyses.

In addition to the above mentioned areas/systems come those which are covered by the Classification Society under delegation from the Norwegian Maritime Directorate. Formal reference is given in the Norwegian Maritime Directorate's Regulation for Construction of Mobile Offshore Units, section 4 subsection 3. Extent of delegated authorisation, so called general authorisation, is only as a result of agreement between the Norwegian Maritime Directorate and the individual recognised Classification Society.

Currently DNV has general authorisation from the Norwegian Maritime Directorate to carry out control functions in the following areas:

DNV engagement based on NMD's authorisation (Alternative A)

1. Hull
2. Legs and Yescking machinery
3. Deck houses and superstructure
4. Main and auxiliary machinery
5. Boilers and pressure vessels and associated equipment
6. Pumps and piping systems
7. Shaft and propeller arrangement
8. Propulsion machinery
9. Rudder and steering arrangement
10. Equipment for anchoring/position keeping systems
11. Fixed equipment in hazardous areas
12. Ventilation in hazardous areas
13. Diving installations

These areas are covered principally by

DNV's main class notations:

- + *IA1 Column-stabilised Drilling Unit*
- + *IA1 Self-elevating Drilling Unit*
- + *IA1 Ship-shaped Drilling Unit*
- + *IA1 Mobile Offshore Unit*
- + *IA1 Oil Production and/or Storage Unit*

NB The evaluation of the areas covered by classification with respect to design, construction and condition are to be carried out according to DNV's technical standards issued 2001(incl. later amendments).

Alternative B (Norwegian Flag / non-DNV)

Those areas which are covered by possible authorisation from the Norwegian Maritime Directorate will appear from the relevant authorisation agreement. To the extent that authorisation covers the Classification Society's main classes, these may be used in the same way as for DNV.

Additional class notations which are not covered by authorisation, and which for example aim to cover technical matters specified by the shelf state, will be considered as a part of the Owner's verification system in the same way as described for DNV.

Alternative C (non-Norwegian Flag / DNV Class)

Based on the guidance given in The Framework Regulations Sec. 3, foreign flag state's regulations which give the same level of safety as the Norwegian Maritime Directorate's regulations of 2003 may be used as a basis for documenting compliance with Norwegian shelf requirements within those areas covered by the Norwegian Maritime Directorate's regulations.

Where foreign maritime certificates are used in this way for initial approval and are used as part-documentation of compliance in the operations phase, the Owner must evaluate the requirements in the relevant regulations against corresponding Norwegian requirements for the individual systems and document equivalence. Technical matters with respect to those areas which are delegated to DNV by the Norwegian Maritime Directorate, ref. above, may correspondingly be considered as sufficiently verified by class certificates. Areas/systems which are covered directly by the Norwegian Maritime Directorate's regulations, and which are not delegated to DNV, need to be specially considered. Where the foreign flag state does not have specific requirements for the particular areas/systems, or has different requirements which give a lower safety level, then the maritime certificates may not be used directly as verification of compliance with the requirements.

Alternative D (non-Norwegian Flag / non-DNV Class)

Also in this case flag state's regulations with associated class rules may be used for verification of matters which are covered by the Norwegian Maritime Directorate's Regulations for Mobile Offshore Units with associated class rules.

Recommended procedure for Alternatives C and D is thus:

Step	Alternative C	Alternative D
1	The Owner evaluates which areas/systems are covered by requirements given by the foreign flag state's regulations, with respect to those areas/systems which are covered by Norwegian maritime regulations for mobile offshore units, i.e. by the Norwegian Maritime Directorate's "Red Book"	As for Alt .C
2	The Owner evaluates equivalence of specified requirements with respect to corresponding Norwegian requirements.	As for Alt. C
3	For areas/systems which are not covered, or where requirements do not give the same level of safety, it must be assessed whether DNV's class rules cover such and whether these give a safety level equivalent to that of the Norwegian Maritime Directorate.	For those areas which are covered by DNV's authorisation from the Norwegian Maritime Directorate, as detailed for Alternative A (Norwegian Flag / DNV Class) , the Owner must make an evaluation of whether the Classification Society's rules give an equivalent level of safety as DNV.
4a	For areas/systems which are evaluated as satisfactorily covered in accordance with the above considerations and analyses, foreign maritime certificates with associated class certificates from DNV may be used as documentation that satisfactory verification will be carried out and that the specific areas/systems fully meet the requirements of the shelf regulations.	Those areas which come satisfactorily out following the assessments carried out in 1, 2, and 3 may be considered as adequately documented by way of foreign maritime certificates and associated class certificates.
4b		Areas/systems which cannot be documented as satisfactory in this way must be dealt with as part of the Owner's other verification work.
5	Matters covered by additional class notations will be considered in the same way as for Norwegian flagged units with DNV class.	Matters which are covered by possible additional class notations in the Class Society's rules will be considered in the same way as stated introductorily concerning DNV's additional notations.

Reference basis, technical basis

Units with valid (IMO) flag state and (IACS) class certificates will satisfy the requirements set out in SOLAS/MODU Code and class rules, which cover the main functions which will be typically those listed below, with indication of what primarily forms the formal technical reference for AoC:

Main Functions	Primary Reference	Comments
<ol style="list-style-type: none"> 1. Structural Integrity 2. Stability and water/weathertight integrity 3. Power Supply 4. Propulsion 5. Steering 6. Fire Protection, alarm and fire fighting 7. Ballast 8. Drains, and discharge pumping 9. Cargo Handling 10. Anchoring and mooring 11. Lifesaving equipment 12. Radio / communication 	<p>Norwegian flag state and IMO certificates (MODU / SOLAS) Items 1, 2, 6, 11, 12</p> <p>Class Certificates Items 3, 4, 5, 7, 8, 9, 10</p>	<p>There will be a certain level of overlap between "flag" and "class" on most items. For Item 1 the MODU/SOLAS Safety Construction Certificate will be based on the class certificate.</p> <p>An important point for clarification is an overview of deviations between Norwegian flag state's rules 2003 and MODU/SOLAS for the relevant periods. A typical example might be NMDs requirement to reserve buoyancy. Further an overview must be established over equivalence between the Class Societies' rules for those areas which are intended covered by class. For example by using IACS harmonised requirements.</p>
<p>And matters related to :</p> <ul style="list-style-type: none"> - Pollution (ref. e.g. MARPOL) 	<p>MODU Code (14.9) / MARPOL</p>	<p>There are 4 categories of discharge connected to operation of mobile offshore units;</p> <ol style="list-style-type: none"> 1. Machine Room 2. Process Plant in general 3. Produced Water 4. Injected fluid to the well <p>Only item 1 is covered by MARPOL.</p>

ENCLOSURE D:

TECHNICAL NORMS AND STANDARDS FOR THE DIFFERENT AREAS ON A MOBILE OFFSHORE UNIT.

D Technical Norms and Standards for the different Areas on a Mobile Offshore Unit.

Technical norms and standards for the various areas on a MOU are given in PSA's Facilities Regulations (hereafter called FR) and the associated guidelines. It is, however, for defined conditions and within certain limitations, possible to utilise maritime regulations for units that are registered in a national ship register, ref. PSA's Framework Regulations (hereafter called FWR) Sec. 3. Relevant technical requirements are founded on NMD's Regulations for MOUs together with complementary rules for classification of offshore units by Det Norske Veritas (DNV), as given in their Offshore Standards of 2001 (incl. later amendments).

Hence, for those facilities and conditions that are covered by FWR Sec. 3, the applicant can choose whether he wants to employ FR or a combination of NMD/DNV. In the following tables, alternatives given by the use of FWR Sec. 3 are explained and identified as alternatives to the use of FR.

Where it is presupposed that all regulations listed in the column "Alternative to FR" shall be followed, these are separated with "+". If only one regulation shall be followed, they are separated by "alternatively". The listing in "Alternative to FR" is based on NMD's regulations with complementary rules for classification for areas as defined in Appendix C.

One should further be aware that no limitations are given in the regulations regarding the use of FR or an identified alternative. It is, however, expected that the applicant is using a comprehensive alternative for the different areas, i.e. either FR or an identified alternative. If, however, FR is chosen for selected NSFI-areas while one is predominantly using the alternative for others, then the applicant shall ascertain that this selection will not have any negative implications regarding the safety of the installation.

Abbreviations:

FR:	Facility Regulation
FWR:	Framework Regulation
NMD Fire	Regulations concerning precautionary measures against fire and explosion on mobile offshore units.
NMD Living quarter	Regulations concerning the construction and equipment of living quarters on mobile offshore units.
NMD Construction	Regulations concerning construction of mobile offshore units.
NMD Ballast	Regulations concerning ballast systems on mobile offshore units.
NMD Welding equipment	Regulations concerning welding equipment etc. for the welding gases acetylene and oxygen on mobile offshore units.
NMD Helicopter decks	Regulations concerning helicopter decks on mobile offshore units.
NMD Deck cranes	Regulations concerning deck cranes etc. on mobile offshore units.
NMD Lifesaving appliances	Regulations concerning evacuation and lifesaving appliances on mobile offshore units.
NMD Radio equipment	Regulations concerning the installation and use of radio equipment on mobile offshore units.
NMD Anchoring	Regulations concerning anchoring /positioning systems on mobile offshore units.
NMD Towing	Regulations concerning field moves and towing of mobile offshore units and concerning towing systems and mooring of supply ships at such units.
NMD Potable water	Regulations concerning potable water and potable water supply on mobile offshore units.
NMD Protective, environm.	Regulations concerning protective, environmental and safety measures on mobile offshore units.
NMD Stability	Regulations concerning stability , watertight subdivision and watertight/weathertight closing means on mobile offshore units.
NMD Risk analyses	Regulations concerning risk analyses for mobile offshore units.
Sdir Operation	Regulations concerning operation of mobile offshore units
Sdir Production	Regulations concerning mobile offshore units with production plants and equipment

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
1	UNIT GENERAL				
	Stability				
	The Facilities Regulations Sec. 63	NORSOK N-001 Ch. 7.10 (which further refers to NMD's regulations, but extent of damage and requirement for reserve buoyancy shall be based on risk analyses)	NMD Stability, §8 to §51	Yes	NMD Stability For Self-elevating units; DNV OS-C301 Stability and Watertight Integrity Sdir Production , §17, 2-3
11	Other				
<i>The following does not comply with the NSFI system, but are included in order to comprise topics that would otherwise be left out as the NSFI system is equipment-specific, resulting in that arrangement etc. is not considered.</i>					
	Arrangement				
	The Facilities Regulations Sec. 6 The Facilities Regulations Sec. 15 The Facilities Regulations Sec. 59 The Facilities Regulations Sec. 12 The Facilities Regulations Sec. 4	See regulations. Regulations issued by The Directorate for Fire and Electrical Safety (DBE) NORSOK C-001 C-002 S-001 S-002 (+ additions as given in the guidelines) See complementary text in guidelines to Sec.12 alternatively: - for access routes: NMD Construction -for evacuation: DNV Offshore Standards DNV OS-A101 Safety Principles and Arrangement	No	Yes	NMD Construction + NMD Living quarter + NMD Fire + NMD Operation § 13 For details see Encl. A3; NPD letter of 26.06.2003

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
	The Facilities Regulations Sec. 68	See complementary text in guidelines to Sec. 4 alternatively: DNV Offshore Standards DNV OS-A101 Safety Principles and Arrangement			
Escape ways					
	The Facilities Regulations Sec. 6 The Facilities Regulations Sec. 12	NORSOK Z-013 Ch. 6.12 See complementary text in guidelines to Sec. 12 alternatively: DNV Offshore Standards DNV OS-A101 Safety Principles and Arrangement	No	Yes	NMD Construction + NMD Living quarter For details see Encl. A3; NPD letter of 26.06.2003
Winterization					
	No specific technical requirements	NA	No	Yes	NMD Construction
Hazardous area					
	The Facilities Regulations Sec. 4	IEC 61892-7 alternatively: DNV Offshore Standards DNV OS-A101 Safety Principles and Arrangement	No	Yes	NMD Fire (which refers to regulations concerning maritime electrical installations)
Working environment					
	The Facilities Regulations Sec. 13,14,19-25	NORSOK S-002N (+ additions as given in the guidelines) See complementary requirements in the regulations. NR-norm can be used for units older than 1.8.1995	No	No	For details see Encl. A3; NPD letter of 26.06.2003

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
2	Hull and Structure				
	The Facilities Regulations Sec. 10	NORSOK N-001 Ch. 6, 7 and 8 N-003 N-004 S-001 Ch. 7, 10 and app. G alternatively: DNV Offshore Standards OS-C101 OS-C102 OS-C103 OS-C104 OS-A101	None	Yes	NMD Construction § 6, 7 and 10, implications of NMD Stability §22 and §30, and the following DNV Offshore Standards: OS-C101 Design of Offshore Structures General OS-C102 Structural Design of Offshore Ships OS-C103 Structural Design of Column Stabilised Units (LRFD method) OS-C104 Structural Design of Self-elevating Units (LRFD method) OS-C201 Structural Design of Offshore Units (WSD method) OS-A101 Safety principles and Arrangement The DNV-OS that will be applied when using Sec. 3 in HES are the same as those referred to in FR, apart from OS-C201.
20	Hull materials, general hull work				
	The Facilities Regulations Sec. 11	NORSOK M-001 M-101 alternatively: DNV Offshore Standards OS-B101 OS-C102 OS-C103	None	Yes	Referenced standards in FR are the same as those applied when using Sec. 3 in HES, with the exception of the NORSOK references. The choice will hence be whether or not NORSOK shall be applied.

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
		OS-C104			
26	Turret				
	The Facilities Regulations Sec. 9 & 65	NORSOK S-001 alternatively; DNV Offshore Standards OS-C102 OS-D101	NMD Production Sec.15, 1-4	Yes	
27	Material protection, external				
28	Material protection, internal				
	The Facilities Regulations Sec. 11	NORSOK M-501 M-503 alternatively; DNV Offshore Standards OS-B101 OS-C102 OS-C103 OS-C104	None	Yes	The standards referenced in FR are the same as those applied when using Sec. 3 in HES, with the exception of the NORSOK references. The choice will hence be whether or not NORSOK shall be applied.

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
3A	DRILLING EQUIPMENT AND SYSTEMS				
30A	Derrick with components				
	The Facilities Regulations Sec. 9 Sec.10	NORSOK D-001 alternatively: DNV Offshore Standards DNV OS-E-101	No	No	NA
31A	Drill floor equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 55 The Activities Regulations Sec. 80	NORSOK D-001 alternatively: DNV Offshore Standards DNV OS-E-101	No	No	NA
32A	Bulk and mud systems				
	The Facilities Regulations Sec. 9 Sec. 50 Sec. 51	NORSOK D-001 alternatively: DNV Offshore Standards DNV OS-E-101	No	No	NA
33A	Well control equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 47 Sec. 48 Sec. 49	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA
34A	Pipe handling equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 55 The Activities Regulations Sec. 80	NORSOK D-001 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
35A	Drill string and downhole equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 53	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA
35A	Drill string and downhole equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 53	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA
36A	Material handling equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 55 The Activities Regulations Sec. 80	NORSOK D-001 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA
37A	Service equipment and systems				
	The Facilities Regulations Sec. 9 Sec. 53	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA
38A	Miscellaneous equipment, systems and services				
	The Facilities Regulations Sec. 9 Sec. 53	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	NA

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
	The Facilities Regulations Sec. 9 Sec. 49	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	
39A	Marine riser, Riser Compensator and Drillstring				
	The Facilities Regulations Sec. 9 Sec. 49	NORSOK D-001 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	
3B	PRODUCTION EQUIPMENT AND SYSTEMS				
30B	Process equipment				
301B	Inlet from risers, manifolds, swivel etc. (field specific conditions)				
	The Facilities Regulations Sec. 9 Sec. 10 Sec. 11 Sec. 56	NORSOK: S-001 S-002N , L-001 , L-002 , P-001 , P-100 , R-004 , , M-001 , M-601 ISO: 6385, 13702	No	No	
302B	Separation Equipment (including water treatment)				
	As in 301B	As in 301B + R-001 , R-100 , S-005	No	No	
303B	Compression Equipment				
	As in 301B + Sec. 23	As in 301 B + R-001 , R-100 , S-005 , NS 4931	No	No	
304B	Water Injection equipment				
	As in 301B	As in 301B	No	No	

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
31B	Auxillary Equipment, Dedicated Process Equipment				
	As in 301B	As in 301B	No	No	
32B	Chemicals Equipment				
	As in 301B + Sec. 14	As in 301B	No	No	
33B	Safety Systems				
331B	Process Shut Down (PSD)				
	The Facilities Regulations Sec.7 Sec. 20 Sec.33	NORSOK S-001 , S-002N ISO 13702, 11064, 10418 (API RP 14C) IEC 61508, NS-EN 614, 894 OLF Guideline 70 PSA YA-710	No	No	
332B	Emergency Shut Down (ESD)				
	The Facilities Regulations Sec.7 Sec. 20 Sec. 32	As in 301B	No	No	
333B	De-pressurisation, Safety Valves, Corresponding Flare System				
	The Facilities Regulations Sec.7 Sec. 20 Sec. 32	As in 301B	No	No	
334 B	Open Drain for Process Facility				
	The Facilities Regulations Sec.7 Sec. 9	NORSOK	No	No	

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
	Sec. 39	S-001 , L-001 , P-001 ISO 13702			
34B	Loadbearing Structure for Process Equipment				
	The Facilities Regulations Sec.4 , Sec. 10 Sec. 11 Sec. 57	NORSOK N-001 , N-003 , N-004 , M-101	No	Yes	NMD Production
36B	Offloading equipment				
	The Facilities Regulations Sec.9 , Sec. 67	NORSOK L-001 and L-002	No	No	
37B	Metering for oil & gas export/-injection, combustion gas, flaring of gas etc.				
	The Facilities Regulations Sec.9 , Sec. 16 The Management Regulation Sec. 18		No	No	
3C	WELL INTERVENTION EQUIPMENT AND SYSTEMS				
30C	Drilling Derrick w/components				
	The Facilities Regulations Sec.9 ,	NORSOK D-001 N-001 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	
31C	Work floor, Equipment and Systems				
	The Facilities Regulations Sec.9 , Sec. 55 The Activities Regulations Sec. 80	NORSOK D-001 D-002 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
32C	Bulk- and Drill Fluid Systems				
	The Facilities Regulations Sec.9, Sec 50	NORSOK D-001 D-002 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	
33C	Well control, Equipment and Systems				
	The Facilities Regulations Sec.9, Sec. 47 Sec. 48 Sec. 49	NORSOK D-001 D-002 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	
36C	Material Handling, Equipment and Systems				
	The Facilities Regulations Sec.9, Sec. 12 Sec. 55 The Activities Regulations Sec. 80	NORSOK D-001 alternatively; DNV Offshore Standards DNV OS-A101 DNV OS-E101	No	No	
38C	Miscellaneous, systems and service				
	The Facilities Regulations Sec.9, Sec. 53	NORSOK D-001 D-002 D-010 alternatively; DNV Offshore Standards DNV OS-E-101	No	No	

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
4	FACILITY EQUIPMENT				
401-407	Manoeuvring machinery and equipment				
	Manoeuvring and propulsion systems are necessary to consider for dynamically positioned facilities only. Ordinary propulsion and manoeuvring are not in using during the drilling operations for units with anchoring. For thruster assisted anchoring, loss of propulsion will be considered in the mooring analysis. This is covered by NSFI 43.				
408	Dynamic positioning plant				
	The Facilities Regulations Sec. 64	IMO MSC/Circular 645	No	Yes	NMD Anchoring (MSC/Circular 645)
41	Navigation and searching equipment				
	The Facilities Regulations Sec. 72	Coast Directorate's regulations for marking of facilities in the petroleum industry, 1 November 1999	Yes	Yes	NMD Construction
42	Communication equipment				
421	Radio plant				
	The Facilities Regulations Sec. 18	See regulations	No	Yes	NMD Radio equipment
422	Lifeboat radio transmitters, emergency radio, direction finder				
	The Facilities Regulations Sec. 18	See regulations	No	Yes	NMD Life saving appliances
425	Calling systems, command telephone, telephone plants, walkie-talkies, etc.				
	The Facilities Regulations Sec. 17	NORSOK S-001 Ch. 9.5 T-001 T-100	No	Yes	NMD Fire + NMD Deck cranes + NMD Helicopter decks + NMD Anchoring + Specific requirements for alarms systems, see NSFI 811

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
427	Light and signal equipment (lanterns, whistles, etc.)				
	The Facilities Regulations Sec. 72	Coast Directorate's regulations for marking of facilities in the petroleum industry, 1 November 1999	Yes	Yes	NMD Construction + NMD Helicopter decks
43	Anchoring, mooring and towing equipment				
	The Facilities Regulations Sec. 64	NORSOK N-001 Ch. 7.11 and 7.12	Yes	Yes	NMD Anchoring + NMD Production <i>Note:</i> Not applicable for Jack-ups.
44	Repair maintenance and cleaning equipment and outfitting				
441-447	Machine tools, cutting and welding equipment				
	The Facilities Regulations Sec. 9	See guideline	No	Yes	NMD Welding equipment
448	Name plates (markings) on machinery, equipment , pipes cables				
	The Facilities Regulations Sec. 27	NORSOK C-002 pot. NS 6033	No	Yes	NMD Protective, environmental
45	Lifting and transport equipment for machinery components				
	The Facilities Regulations Sec. 70 Note: Offshore Cranes are covered by NSFI 563	None	No	Yes	NMD Protective, environmental
46	VOC/blanket gas system				
	The Facilities Regulations Sec. 9 Sec. 56	NORSOK P-100	No	Yes	NMD Production
488	Jacking system, spud tank jetting system for Jack-ups				
	None		No	Yes	NMD Construction + OS-D101 Marine and machinery Systems and Equipment

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
5	EQUIPMENT FOR CREW				
50	Lifesaving, protection and medical equipment				
501	Lifeboats with equipment				
	The Facilities Regulations Sec. 43 The Facilities Regulations Sec. 40	NORSOK S-001 Ch. 5 Free-fall lifeboats: NMD Life saving appliances MOB boat: NMD Life saving appliances	Yes	Yes, for eksisterende	NMD Life saving appliances + For new facilities or after larger rebuilding projects free-fall lifeboats are required. Note: Both lifeboats and MOB boat must be addressed under these regulations.
502	Life rafts with equipment				
	The Facilities Regulations Sec. 43	NORSOK S-001 Ch. 5	No	Yes	NMD Life saving appliances
503	Livrednings-, sikkerhets- og nødutstyr				
	The Facilities Regulations Sec. 44	NMD Life saving appliances	Yes	Yes	NMD Life saving appliances
504	Medical and dental equipment, medicines and first aid equipment				
	The Facilities Regulations Sec. 60	NORSOK C-001 Ch. 6.6	No	Yes	NMD Living quarter
	The Facilities Regulations Sec. 61	(+ additions as given in the guidelines)	No	No	
505	Loose fire fighting apparatuses and equipment, firemen's suit				
	The Facilities Regulations Sec. 45	ISO 13702 App. B.8.12 and NORSOK S-001 App. C.5	No	Yes	NMD Fire

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
51	Insulation, panels, bulkheads, doors, side scuttles, windows, skylight				
	The Facilities Regulations Sec. 28 The Facilities Regulations Sec. 29 The Facilities Regulations Sec. 30 The Facilities Regulations Sec. 6	NORSOK S-001 Ch. 10.3 and 10.5 (+ additions as given in the guidelines) alternatively; DNV Offshore Standards OS-A101 + OS-D301 Se the guidelines alternatively; DNV Offshore Standards OS-D301 See regulations See regulations	No	Yes	NMD Construction + NMD Living quarter + NMD Fire • • • Note: • It is presupposed that requirements concerning watertight integrity and load line will be considered in Group 1.
52	Internal deck covering, ladders, steps, railings etc.				
	The Facilities Regulations Sec. 59	NORSOK C-001 C-002 S-001 S-002 (+ additions as given in the guidelines)	No	Yes	NMD Construction + NMD Living quarter
53	External deck covering, steps, ladders etc, fore-and-aft gangway				
	The Facilities Regulations Sec. 21	NORSOK S-002 Ch. 5.8	No	Yes	NMD Construction

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
54	Furniture, inventory and entertainment equipment				
	The Facilities Regulations Sec. 59	NORSOK C-001 C-002 S-001 S-002 (+ additions as given in the guidelines)	No	Yes	NMD Living quarters
55	Galley & pantry equipment, arrangement for provisions, ironing/drying equipment				
	The Facilities Regulations Sec. 59	NORSOK C-001	No	Yes, regarding shape, construction No, regarding working environment, lighting, ventilation, etc.	NMD Living quarters
56	Lifting and transport equipment for crew and provisions				
561	Personnel lifts, escalators				
	The Facilities Regulations Sec. 74 The Facilities Regulations Sec. 26 The Facilities Regulations Sec. 70	ISO 8383 NORSOK D-001 Ch. 5.5.3.2 alternatively: DNV Offshore Standards OS-E101 (Ch.2 Sec.5 I300) ISO/FDIS 13535 alternatively:	No	No, for lifting equipment on drill floor Yes, for other equipment	<i>Equipment for lifting personnel other than on drill floor:</i> NMD protective, environmental <i>Lifts:</i> NMD Construction § 23 alternatively: DNV's Rules for certification of lifts onboard ships, MOUs and offshore installations

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
		DNV Offshore Standards OS-E101 (Ch.2 Sec.5 E100-300)			
563	Deck cranes				
	The Facilities Regulations Sec. 70	See regulations	No	Yes	NMD Deck cranes + DNV Rules for certification of Lifting appliances + NORSOK Standard S-002 Working Environment (for working environment in crane cabin) See also NPD/PSA's letter of 22.12.2003
564	Walkway between units				
	No		No	Yes	DNV-OSS-101 Rules for the Classification of Offshore Drilling and Support Units, Ch.2 Sec.4 Note: Only applicable for Accommodation units
566	Helicopter Platform w/equipment				
	The Facilities Regulations Sec. 71	NORSOK S-001 Ch. 6.5 (+ additions as given in the guidelines)	No	Yes	NMD Helicopter decks
57	Ventilation, air-conditioning and heating system				
	The Facilities Regulations Sec. 13	ISO 13702 Ch. 7 and App. B.6, NORSOK H-001 S-001 Ch. 6.4 (+ additions as given in the guidelines) alternatively;	No	Yes, regarding fire protection, etc.	NMD Fire + OS-A101 Safety Principles and Arrangement (only re. ventilation in hazardous areas) + OS-D101 Marine and

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec. 3 in HES be used?	Alternatives to FR
	The Facilities Regulations Sec. 21	DNV Offshore Standards OS-D101 (Ch.2 Sec. 4) (With respect to air quality relevant NORSOK standards should be applied) NORSOK S-002 Ch. 5.8 (+ additions as given in the guidelines)		No, regarding working environment, indoor climate, etc.	Machinery Systems and Equipment (only re. ventilation in hazardous areas) + OS-E101 Drilling Plant (only re. ventilation in hazardous areas)
58	Sanitary systems with discharges				
	For sanitary discharges: see Group 76	None	No	Yes, regarding watertight integrity, etc. No, regarding discharge to sea.	OS-D101 Marine and Machinery Systems and Equipment + OS-C301 Stability and Watertight Integrity

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
6	MACHINERY AND MAIN COMPONENTS				
60	Diesel engines				
	No	No	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
62	Other types of propulsion machinery				
	No	No	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment + DNV-OS-D201 Electrical Systems and Equipment
63	Transmission and foils (propellers, reduction gears etc.)				
	No	No	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment Note: Gjelder kun innretninger med dynamisk posisjonering og thruster-assistert forankring.
64	Boilers, steam and gas generators				
	No	No	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
65	Motor aggregates for main electric power production				
	The Facilities Regulations Sec. 46 The Facilities Regulations Sec. 9	See regulations alternatively: DNV Offshore Standards OS-D201 Relevant NORSOK standards	No	Yes	DNV-OS-D201 Electrical Systems and Equipment + DNV-OS-D101 Marine and Machinery Systems and Equipment Note: Ref NSFI Group 408 for Dynamically Positioned

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
					Facilities
66	Other aggregates and generators for main and emergency power productions				
	The Facilities Regulations Sec. 37	ISO 13702 Ch. 9 and App. C.1, NORSOK S-001 Ch. 9.6 IMO MODU CODE (-89) Ch.5, (+ additions as given in the guidelines)	No	Yes	NMD Construction + NMD Production + DNV-OS-D101 Marine and Machinery Systems and Equipment Note: For accommodation uits, ref. is made to DNV-OSS-101 , Ch.2 Sec.4

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec.3 in HES be used?	Alternatives to FR
7	SYSTEMS FOR MACHINERY MAIN COMPONENTS				
70	Fuel systems				
	The Facilities Regulations Sec. 9	See regulations alternatively: DNV Offshore Standards OS-D101	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
71	Lube oil systems				
	The Facilities Regulations Sec. 9	See regulations alternatively: DNV Offshore Standards OS-D101	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
72	Cooling systems				
	The Facilities Regulations Sec. 9	See regulations alternatively: DNV Offshore Standards OS-D101	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
73	Compressed air systems				
	The Facilities Regulations Sec. 9	See regulations alternatively: DNV Offshore Standards OS-D101	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment
74	Exhaust systems and air intakes				
	The Facilities Regulations Sec. 50 The Facilities Regulations Sec. 69	NORSOK D-001 Ch. 5.6, 5.7, 5.8, 5.9 and 5.11 (+ additions as given in the guidelines) alternatively: DNV Offshore Standards OS-E101 NORSOK	Yes	Yes	

NSFI Area	Technical requirements in PSA regulations	Standards referred to in FR	Direct reference to NMD	Can Sec.3 in HES be used?	Alternatives to FR
					systems for ballast water, bilge, watertight closures and fir/gas detection systems are evaluated under this alternative.

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
8	PLATFORM COMMON SYSTEMS				
80	Ballast and bilge systems, gutter pipes outside accommodation				
	The Facilities Regulations Sec. 38	NMD Ballast	Yes	Yes	NMD Ballast + NMD Pollution + DNV-OS-D101 Marine and Machinery Systems and Equipment (Ch.2 Sec.1, 2 & 6) For Self-elevating Units; DNV-OS-D101 Marine and Machinery Systems and Equipment
	The Facilities Regulations Sec. 39	ISO 13702 Ch. 8 and App. B.4 NORSOK S-001 App. E.7 P-100 Ch. 23 S-001 Ch. 11.5 (for MOUs)	No	Yes, regarding system design No, regarding environ. requirements	DNV-OS-D101 Marine and Machinery Systems and Equipment
81	Fire & lifeboat alarm-, fire fighting- & wash down systems				
810	Fire detection, fire and lifeboat alarm systems				
	The Facilities Regulations Sec. 31	NORSOK	No	Yes, except specific	NMD Fire

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
		S-001 Ch. 9.2 Alternatively: DNV Offshore Standard OS-D301 (Ch.2 Sec.4)		requirements to sound and light alarms.	+ NMD Production
811	Fire detection, fire and lifeboat alarm systems				
	The Facilities Regulations Sec. 17	NORSOK S-001 Ch. 9.5 T-001 T-100 (+ additions as given in the guidelines)	No	Yes, except for specific requirements for sound and light alarms	NMD Fire + NMD Production
	The Facilities Regulations Sec. 31	ISO 13702 incl. App. B.6 NORSOK S-001 Ch. 9.2 alternatively: DNV Offshore Standard OS-D301 (Ch.2 Sec.4)	No	Yes, except for specific requirements for sound and light alarms	NMD Fire
812	Emergency shut down system				
	The Facilities Regulations Sec. 32	ISO 13702 Ch. 6 and 7, and App. B.2 and B.3 NORSOK S-001 Ch. 9.3 alternatively: DNV Offshore Standard OS-A101	No	Yes for the drilling unit part, "no" for process plant (well testing facilities shall be considered as a process for a drilling unit)	NMD Fire + NMD Production
	The Facilities Regulations Sec. 33	ISO 10418 or API RP 14C	No	No, applies to process facilities (well testing)	NA
	The Facilities Regulations Sec. 34	ISO 13702 Ch. 6 and App. B.2 NORSOK S-001 Ch. 6.9 and App. E	No	No, applies to process facilities (well testing)	NA

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
		P-100 Ch. 16 (+ additions as given in the guidelines)			
813-819	Fire/wash down systems, emergency fire pumps, general service pumps, Fire fighting systems for external fires, Fire fighting systems with CO₂ and halon gases				
	The Facilities Regulations Sec. 35	ISO 13702 Ch. 11 and App. B.8 NORSOK S-001 Ch. 10.7, 10.8.1 and App. H. alternatively: DNV Offshore Standard OS-D301 (Ch.2 Sec.3, 6 & 7)	No	Yes	NMD Fire + NMD Production + DNV-OS-D101 Marine and Machinery Systems and Equipment (Ch.2 Sec.1, 2 & 6) + NMD Helicopter deck
	The Facilities Regulations Sec. 36	ISO 13702 Ch. 11 and App. B.8 NORSOK S-001 Ch. 10.7 alternatively: DNV Offshore Standard OS-D301 (Ch.2 Sec.3, 4, 7 & 8)	No	Yes	NMD Fire + DNV-OS-D101 Marine and Machinery Systems and Equipment (Ch.2 Sec.1, 2 & 6) + NMD Helicopter deck
82	Air and sounding systems from tank to deck				
	No	None	No	Yes	Sdir Ballast + DNV-OS-D101 Marine and Machinery Systems and Equipment
83	Special common hydraulic systems				
	No	None	No	Yes	DNV-OS-D101 Marine and Machinery Systems and Equipment

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
85	Electrical systems general part				
	The Facilities Regulations Sec. 37	ISO 13702 Ch. 9 and App. C.1 NORSOK S-001 Ch. 9.6 IMO MODU CODE (-89) Ch.5 (+ additions as given in the guidelines)	No	Yes	NMD Construction
	The Facilities Regulations Sec. 46	IEC 61892 Where IEC 61892 not suitable relevant parts of the IEC 60092 series should be used. alternatively: DNV Offshore Standard OS-D201	No	Yes	Regulations concerning maritime electrical installations
	The Facilities Regulations Sec. 78	EE Regulations Ch. IV (EMC) 89/336/EEC 92/31/EEC	No	Yes	NMD Construction (referring to 89/336/EEC and 92/31/EEC)
	The Facilities Regulations Sec. 79	EE Regulations Ch. IV (Ex. equipment)	No	Yes	NMD Construction + Regulation concerning maritime electrical installations
86	Electrical power supply				
	The Facilities Regulations Sec. 46	IEC 61892 Where IEC 61892 not suitable relevant parts of the IEC 60092 series should be used. alternatively: DNV Offshore Standard OS-D201	No	Yes	Regulations concerning maritime electrical installations
87	Electrical distribution common systems				
	The Facilities Regulations Sec. 46	IEC 61892 Where IEC 61892 not suitable relevant parts of the IEC 60092 series should be used. alternatively: DNV Offshore Standard OS-D201	No	Yes	Regulations concerning electrical installations Note: Refer to NSFI Group 408 for dynamically

NSFI Område	Tekniske krav i Ptil forskrift	Refererte standarder i IF	Direkte ref. til Sdir	Kan § 3 i RF anvendes	Alternativ til IF
					positioned facilities
88	Electrical cable installation				
	The Facilities Regulations Sec. 46	IEC 61892 Where IEC 61892 not suitable relevant parts of the IEC 60092 series should be used. alternatively: DNV Offshore Standard OS-D201	No	Yes	Regulations concerning electrical installations Note: Ref NSFI group 408 for dynamically positioned units
89	Electrical consumers (lighting etc.)				
	The Facilities Regulations Sec. 46	IEC 61892 Where IEC 61892 not suitable relevant parts of the IEC 60092 series should be used. alternatively: DNV Offshore Standard OS-D201	No	Yes	NMD Construction + Regulations concerning electrical installations