

A large offshore oil rig is shown at sea under a cloudy sky. The rig has a yellow base and a tall, grey structure. A logo with the word 'ODFJELL' is visible on the grey structure. The rig is surrounded by dark blue water.

HANDBOOK FOR ACKNOWLEDGEMENT OF COMPLIANCE (AoC)

Revision 06, February 2020

PREFACE

The Acknowledgement of Compliance (AoC) scheme has a long history starting in year 2000 and made mandatory from 2004. The AoC handbook was last updated in 2015 to include a new layout and more use of active links in the document. In this revision the document follows the same structure and should be easily recognizable for the user.

It is in many ways different to operate on The Norwegian Continental Shelf (NCS) than in other parts of the world. To maintain a stable and recognizable framework for the mobile units the possibility to use maritime regulations is therefore crucial. This is sanctioned in the framework regulation section 3.

This handbook gives an overview of where the maritime regulations can be used as an alternative to the facility regulations.

The Norwegian Shipowners' Association (NSA) wish to especially thank the Norwegian Petroleum Authority (PSA) and the Norwegian Oil and Gas Association for their contribution to the update. DNV GL has been the main contributor to all editorial issues and has given valuable advice during the whole process. NSA also wish to thank our members in the reference group, consisting of Stena Drilling, Transocean and Odfjell Drilling.



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1 INTRODUCTION

This chapter gives an overview of the Acknowledgement of Compliance (AoC) scheme that was introduced in 2000 and became mandatory for all mobile offshore units (MOU) on the Norwegian Continental Shelf (NCS) in January 2004. Further it defines the objective and scope of this AoC Handbook, and how it is structured.

1.1 About the AoC scheme

The purpose of the AoC scheme is to make the application process more efficient, clarify responsibility and provide greater predictability for the players on the NCS.

*“When we issue an AoC, this expresses our confidence that petroleum operations can be conducted by the mobile facility concerned in accordance with regulations,”
PSA 2019 /1/*

All MOUs¹ registered in a national ship register must have an AoC in order to participate in petroleum operations on the NCS. An AoC is not required for mobile facilities operated directly by the field operator, and for storage ships.

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

The AoC is given based on the information that the Applicant has provided concerning the MOU and organisational conditions, and the authorities' follow-up of the Applicant.

There is no defined expiry date for an AoC granted by the Petroleum Safety Authority (PSA). However, the Holder of the AoC is responsible for maintaining the AoC application documentation and informing PSA of major changes to the MOU or the related management system.

Links:

- *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities (the Framework Regulations) Section 25 Application for Acknowledgement of Compliance for certain offshore mobile facilities*

1.2 About the AoC handbook

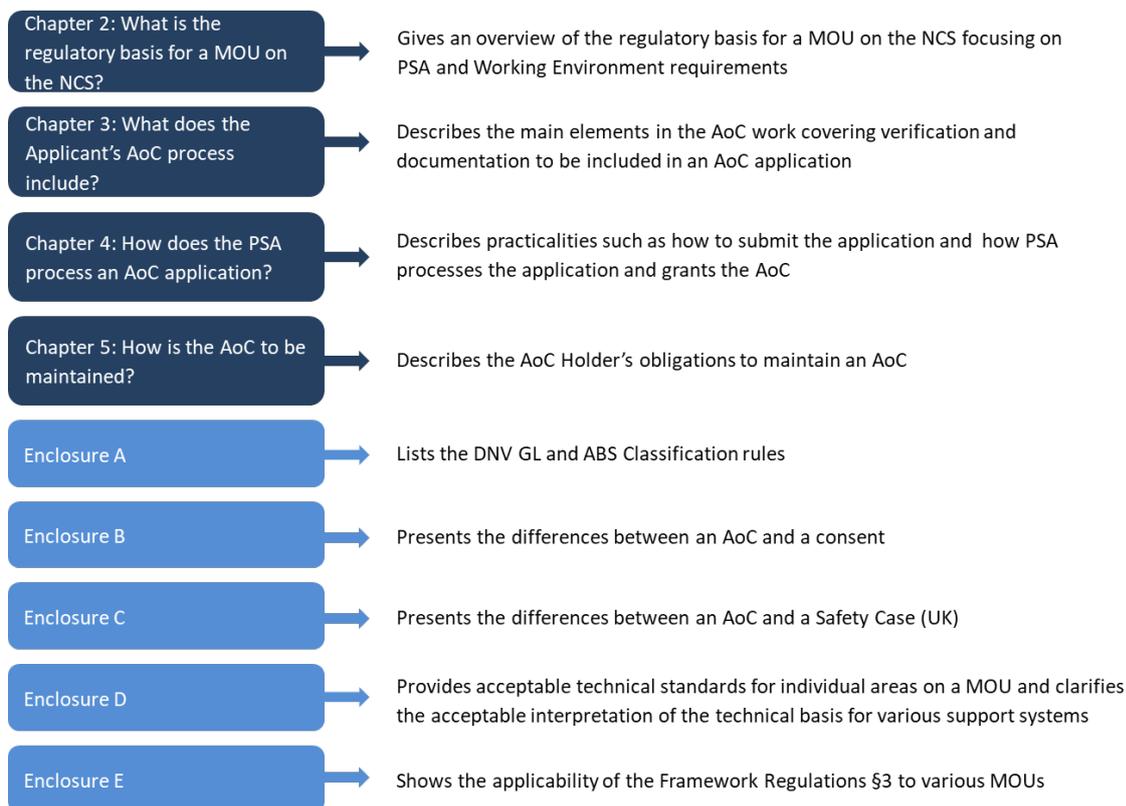
This Handbook has been developed to enable an efficient process for the Applicant in the development and qualification of material to be used in the application for the AoC. The Handbook also aids standardization of AoC applications.

¹ In this Handbook, the term MOU includes units for drilling (MODU), production, storage and/or offloading (FPDSO and FPSO), accommodation units and well intervention units, as defined in The Framework Regulations, Section 25.

It is aimed at MOU owners, MOU operators and drilling contractors.

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

The Handbook is set up as follows:



Throughout the Handbook, blue indented text is used to highlight important information. The blue text is taken from various sources such as the PSA website, PSA regulations or relevant guidelines and published information.

“The Petroleum Safety Authority Norway issues Acknowledgements of Compliance for the following mobile facilities registered in a national ships' register: drilling facilities, living quarters facilities, facilities for production, storage and offloading, facilities for drilling, production, storage and offloading as well as well intervention facilities.” – The Framework Regulations, Section 25.

2 WHAT IS THE REGULATORY BASIS FOR A MOU ON THE NCS?

2.1 Introduction

This chapter gives an overview of the regulatory regime that applies to a MOU on the NCS. It covers PSA’s regulatory regime and relevant working environment regulations. According to PSA regulations, maritime regulations under the Norwegian Maritime Authority (NMA) can be used to meet some requirements, thus, a short introduction to the NMA regime is given.

The chapter also covers technical norms and standards recommended by the authorities and it details the requirements for an AoC application.

It should be noted that authorities other than the PSA, the NMA and the Directorate of Labour Inspection have acts and regulations that apply to MOUs on the NCS, for example the Food Safety Authority, the Civil Aviation Authority, Radiation and Nuclear Safety Authority and the Norwegian Post and Telecommunications Authority. However, these regulatory regimes are not covered in this chapter.

2.2 The AoC regulatory framework

The acts governing health, safety and environment (HSE) on the NCS and the HSE regulations enforced by the PSA are shown in the figure below.

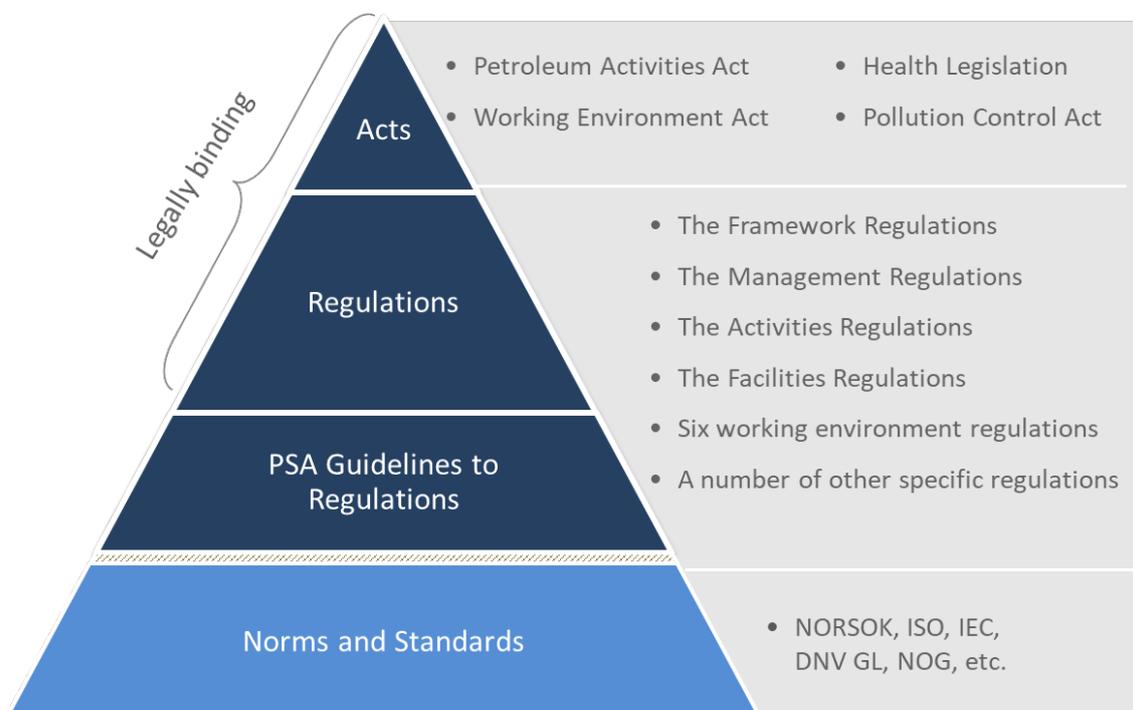


Figure 2-1: Health, safety and environment regulations enforced by PSA

The AoC arrangement is warranted in the Norwegian *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities* (the Framework Regulations) *Section 25 Application for Acknowledgement of Compliance for certain offshore mobile facilities*.

It should be noted that relevant EU Product Directives also apply to all MOUs as given in the Norwegian *Regulations relating to design and outfitting of facilities, etc. in the petroleum activities* (the Facilities Regulations), *Chapter XV Implementation of EEA Regulations*.

According to Section 3 of the Framework Regulations *Application of maritime regulations in the offshore petroleum activities*, mobile facilities which follow a maritime operational concept² can use relevant technical requirements in the NMA regulations for mobile facilities (the Red Book), with supplementary classification rules provided by a MOU classification society recognised by NMA. Alternatively, international flag state rules with supplementary classification rules providing the same level of safety to technical requirements laid down in and in pursuance of the *Petroleum Activities Act* can be used.

This means that Applicants have three choices when deciding on which *technical* requirements regarding the hull and marine systems to implement on a MOU:

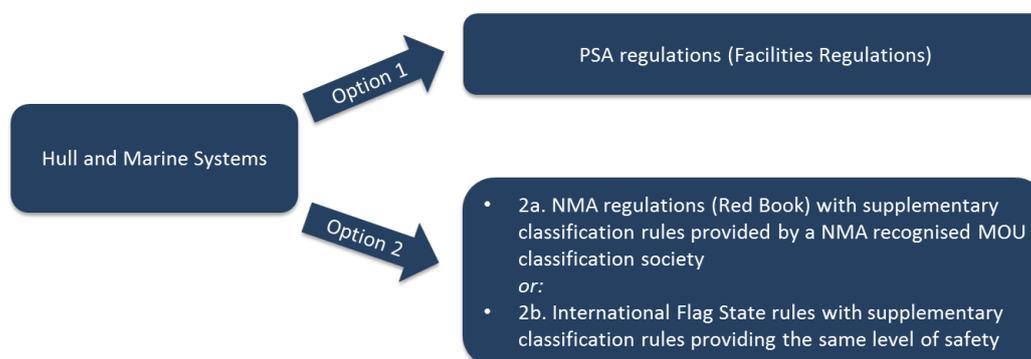


Figure 2-2: Options for technical requirements to maritime areas. Section 3 of the Framework Regulations is the “entry gate” to options 2a and 2b

The provision to use the NMA regulations includes maritime areas such as the hull, stability, anchoring, marine systems and other areas such as electrical systems, communication systems, deck cranes, helicopter deck etc. It excludes functional systems which are directly related to petroleum activities such as drilling and process equipment, universal audio and visual alarms, equipment for personnel transport and requirements for personnel transport on the drill floor and well intervention systems. This is illustrated in Figure 2-3 and further detailed in Section 2.5 of this Handbook.

² i.e. are registered in a national ship register.

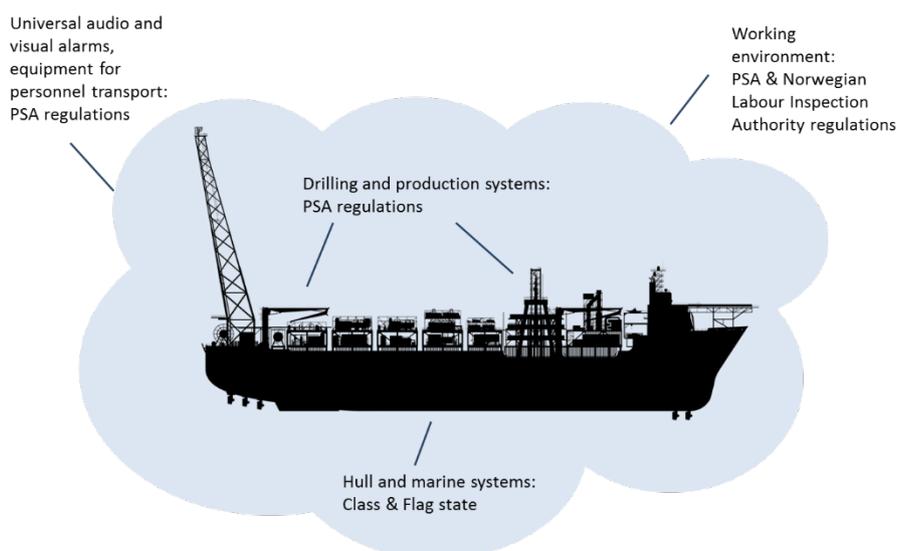


Figure 2-3: Application of regulations for MOUs

The Facilities Regulations Section 1 *Scope* gives clarifications and limitations with regards to the application of Section 3 in the Framework Regulations.

The chosen technical requirements need to be used in their entirety and switching between maritime and petroleum regulations is not accepted. How to handle nonconformities and exemptions is described in Chapter 3.4 Handle nonconformities.

An AoC is granted based on the authorities' evaluations of the condition, compared with the regulations that apply for use of mobile facilities on the Norwegian continental shelf at the time of the statement. When using the maritime regime, this implies that the latest revision of the flag/class rules shall apply for the AoC. This also implies that the latest revision of flag / class rules shall be used as basis for the gap analysis, regardless of the revision of regulations and standards used for assignment of flag / class. See Section 5 for details regarding implementation of regulatory updates when maintaining the AoC.

- Links:*
- *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities (the Framework Regulations), Section 25 Application for Acknowledgement of Compliance for certain offshore mobile facilities*
 - *Regulations relating to design and outfitting of facilities, etc. in the petroleum activities (the Facilities Regulations), Chapter XV Implementation of EEA regulations*
 - *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities (the Framework Regulations), Section 3 Application of maritime regulations in the offshore petroleum activities*
 - *Regulations relating to design and outfitting of facilities, etc. in the petroleum activities (the Facilities Regulations), Section 1 Scope*

2.3 Working environment

Section 3 of the Framework Regulations does not apply to working environment issues like noise, vibration, lighting and ergonomics, but NMA's regulations can be used as a norm in connection to the design of access ways, working areas and living quarters in order to ensure a good and sound working environment.

The Facilities Regulations *Chapter IV Design of Work and Common Areas* presents the applicable requirements with regards to working environment in offshore petroleum activities. These include requirements regarding ergonomic design, human-machine interface (HMI), noise, vibrations and lighting. The Facilities Regulations guidelines give guidance with regards to the applicable chapters in *NORSOK S-002 Working environment*³ that should be used to be in compliance with the regulations.

The *Working Environment Act*, with some exceptions⁴, and several of the regulations issued by the Directorate of Labour Inspection, apply to the petroleum activities.

We follow up the Applicants' management of working environment conditions, so that risk of injury and illness is kept within the framework of regulatory requirements. The players are responsible for ensuring a fully sound and proper working environment, PSA Website /2/

The following general working environment regulations, pursuant to the *Working Environment Act*, which came into force on 1 January 2013, are relevant:

1. *Regulations concerning organisation, management and employee participation*
2. *Regulations concerning the design and layout of workplaces and work premises (The workplace regulations)*
3. *Regulations concerning administrative arrangements within the area of application of the Working Environment Act (Regulations concerning administrative arrangements)*
4. *Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents (Regulations concerning action and limit values)*
5. *Regulations concerning the performance of work, use of work equipment and related technical requirements (Regulations concerning the performance of work)*
6. *Regulations concerning the construction, design and production of work equipment and chemicals (The producer responsibility regulations)*

Requirements with regards to material handling, transport, access and escape routes, living quarters, health department and emergency sickbay are often considered to be closely connected to ensuring a good and sound working environment. NMA regulations may be used as alternatives to *NORSOK C-001 Living quarters area* and *C-002 Architectural components and equipment* for mobile offshore units in order to fulfil the requirements in The Facilities Regulations *Section 13 Materials Handling*

³ The NORSOK standards are developed by the Norwegian petroleum industry to ensure adequate safety, value adding and cost effectiveness for petroleum industry developments and operations.

⁴ For example, The Working Environment Act's provisions relating to working hours do not apply to the offshore activities - special provisions are found in the Framework Regulations.

and Transport Routes, Access and Evacuation Routes and Sections 58 – 61 regarding Living Quarters in the areas that are covered by the NMA regulations.

It is important to emphasize that when NMA regulations are applied as described in the paragraph above, it implies that other normative standards with respect to health and safety may be selected. Hence, it is not uncommon to use the corresponding NORSOK requirements as a best practice when designing and engineering these areas.

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- Links:*
- *Norwegian Labour Inspection Authority, Acts and Regulations*
 - *Regulations concerning organisation, management and employee participation*
 - *The Workplace Regulations*
 - *Regulations concerning the performance of work*
 - *Regulations concerning action and limit values*
 - *The producer responsibility regulations*
 - *Regulations concerning administrative arrangements*
 - *Regulations relating to design and outfitting of facilities, etc. in the petroleum activities (the Facilities Regulations), Chapter IV, Design of work and common areas*
 - *NORSOK S-002 Working environment*
 - *NORSOK C-001 Living quarters area*
 - *NORSOK C-002 Architectural components and equipment*
-

2.4 Maritime regime

PSA stipulates that NMA regulations are to be supplemented by classification rules provided by a MOU classification society recognised by NMA, or other maritime regulations and classification rules providing the same level of safety⁵. DNV GL and ABS classification rules are provided as an example in Enclosure A⁶.

NMA recognizes the following MOU classifications societies; DNV GL (referred to with former name Det Norske Veritas in the regulations), American Bureau of Shipping (ABS) and Lloyds Register of Shipping (LRS).

Maritime regulations have their basis in the International Maritime Organisation's (IMO) conventions, which are ratified by member states/flag state authorities. IMO has produced a *Mobile Offshore Drilling Unit (MODU) Code* addressing safety considerations for MODUs. The national flag state authorities are free to specify requirements which exceed IMO's minimum requirements, for example the NMA has not ratified the MODU Code but has developed a specific set of regulations (the Red Book) for MOUs.

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- Links:*
- *NMA Regulations*
 - *Code for the construction and equipment of mobile offshore drilling units, MODU Code, IMO, 2010 Edition*
-

⁵ Note that the NMA regulations are in some cases more extensive than the IMO conventions, for example potable water.

⁶ Lloyds register rules are not included as they do not have N-notation.

2.5 Use of technical requirements

Depending on the regime being followed, technical requirements for the various areas on a MOU are given in PSA’s Facilities Regulations and associated guidelines and/or in the NMA regulations for MOUs together with complementary rules for classification of offshore units.

The table presented in Enclosure D may be used as a tool for how to select technical requirements when describing the MOU and all conditions of importance for the intended operations. The top line of the table is shown in the figure below along with a description of what is covered in each column.

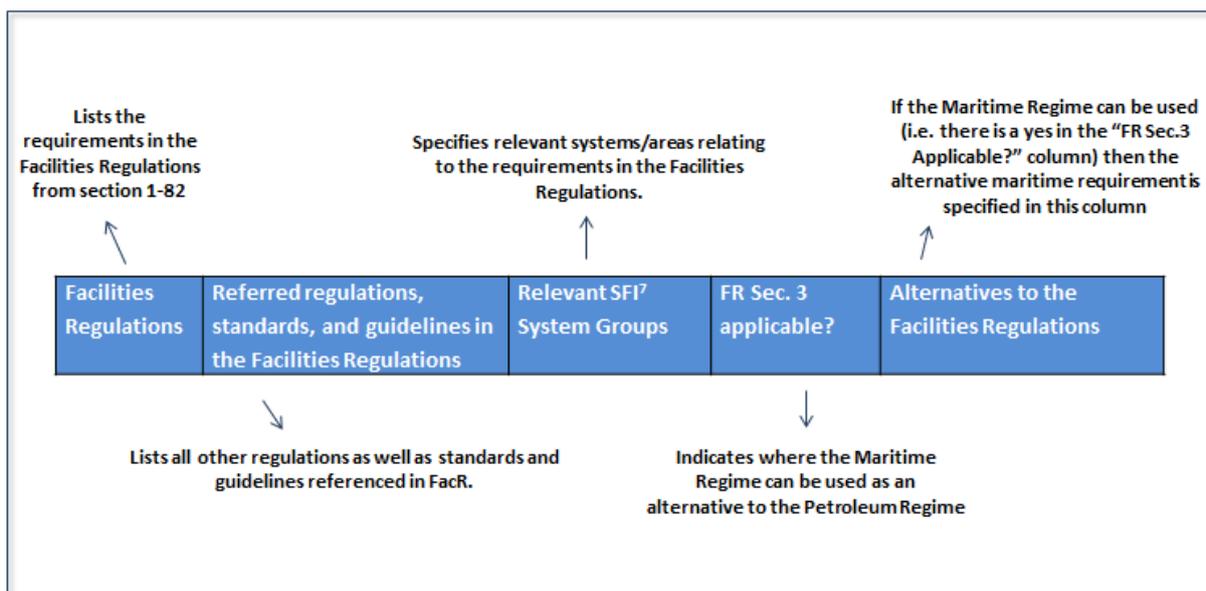


Figure 2-4: Explanation of heading to table in Enclosure D

Should the standards referred to in the regulations be chosen as the method for complying with a requirement, it is assumed that the Applicant will be in compliance. If another standard is chosen, the Applicant needs to demonstrate that the chosen standard will achieve the same level of safety as the recommended standard.

“Enclosure D to the AoC Handbook – ABS Rules references April 2017” can be used as an alternative to the table in Enclosure D.

Links: • [Enclosure D to the AoC Handbook – ABS Rules references April 2017](#)

⁷ SFI is a coding and classification system widely used in the maritime and offshore industry worldwide, which provides a functional subdivision of technical and functional information on a ship or rig.

3 WHAT DOES THE APPLICANT’S AOC PROCESS INCLUDE?

3.1 Introduction

This chapter gives guidance on how the Applicant could develop its AoC documentation, ensuring a well-structured application. The main objective of the documentation is to verify that the MOU is and always will be, in compliance with all applicable requirements on the NCS. Hence, verification is a key part of this chapter.

“The responsible party shall determine the need for and scope of verifications, as well as the verification method and its degree of independence, to document compliance with requirements in the health, safety and environment legislation. When verifications are deemed necessary, they shall be carried out according to a comprehensive and unambiguous verification programme and verification basis”, Framework Regulations §19, /3/

Due to the complexity of MOUs and operations on board, and the comprehensive rules and regulations that apply, it is important to establish verification systematics⁸ that contribute to efficient and correct verification work, creating the necessary trust and confidence both for the Applicant as well as for the field operator and authorities.

Figure 3-1 below outlines the Applicant’s AoC process which is the structure to be followed in this chapter.



Figure 3-1: The main elements in the Applicant’s AoC process

⁸ A systematic listing of requirements to verification is not provided in the shelf regulations. The Applicant must therefore themselves identify the various requirements and implement necessary systematics in order to ensure compliance.

3.2 Describe verification object (MOU)



The Applicant should describe the verification objective (the MOU) by means of reference to existing documentation.

The description of the MOU should cover:

- The Applicant's management system
- Technical issues; technical description, operations and limitations

3.3 Carry out gap analysis



The Applicant should present a gap analysis⁹ documented in the form of a regulatory compliance matrix covering all relevant acts and regulations.

Applicants typically have two matrices, one covering general and management system requirements (given in all relevant regulations) and one covering technical requirements (given in PSA and/or NMA regulations – see Enclosure D). The compliance matrices are typically presented in a spreadsheet or table format.

The gap analysis should list the relevant requirements (that is, requirements applicable at the time of the statement being issued) in the acts and regulations and, alongside each requirement, list the Applicant's governing documents which describe how the requirement is met. The compliance status of each requirement should also be specified and if not compliant, a note on how compliance shall be achieved should be included. Reference can be made to relevant sections in the AoC application which cover the requirements. An example of a management system compliance matrix is presented below, using sections of the Framework Regulations as an illustration. The technical requirements compliance matrix is typically presented in the format given in Enclosure D.

⁹ Reference is made to Chapter 2 of this Handbook.

Framework Regulations	Requirement	Referred Regulations and Standards	Applicant Internal Document Reference	Applicant AoC Reference	Compliance Status
Section 13	Requirements relating to facilitation of employee participation	Working Environment Act Regulations on Safety Delegates and WE Committees	Procedure XX Work Process XX Guideline XX	Part 2 Chapter XX	Compliant
Section 43	Requirements relating to night work	-	Procedure XX Work Process XX Guideline XX	Part 2 Chapter XX	Not Compliant Temporary exemption given by PSA.
Section 55	Requirement to impact assessments etc.	-	-	N/A	N/A Responsibility of the field operator

Figure 3-2: Example of a general and management system compliance matrix (using sections of the Framework Regulations as an illustration)

3.4 Handle nonconformities



Requirements on how to handle nonconformities are given in the Management Regulations Section 22. Exemption denotes the authorities' decision to accept nonconformity related to statutory and regulatory requirements and are covered by the Framework Regulations Section 70.

Nonconformity

If nonconformities are identified during the gap analysis, they must be corrected, their causes clarified, and measures implemented to prevent recurrence. Until a nonconformity has been corrected, compensatory measures must be adopted to maintain a prudent level of HSE.

For nonconformities to statutory and regulatory requirements that entail disproportionately high costs to deal with, it may be necessary to apply PSA for an exemption. This will apply to cases where the Applicant wishes to use another, documentable equivalent solution than that in a detailed requirement, or a solution that yields a lower level of HSE than ensured from the applicable regulatory requirement.

Nonconformities to internal requirements (including standards and guidelines) should be managed internally in accordance with the Applicant's nonconformity handling processes/procedures and PSA does not have to be informed. However, PSA may follow up how the Applicant manages the identification and handling of nonconformities and how the Applicant itself ensures that the nonconformity system functions as intended.

As a basis for maintaining an overview of the status of nonconformities relating to the MOU, a list of all nonconformities that will *not* be corrected before start-up shall be included in the AoC application.

For those nonconformities that will be corrected shortly after start-up, there is no need to apply for exemptions.

Noting that the same nonconformities may recur from MOU to MOU, PSA has a clear recommendation to companies seeking an AoC:

“Learn from the errors of other owners by reading our audit reports from earlier cases. These are all published on our website, so the information is available to all”, PSA 2014. /4/

Exemption

If nonconformities to regulatory requirements are not planned to be corrected as quickly as possible, the Applicant can apply for an exemption according to the Framework Regulations Section 70. This would primarily be relevant for older MOUs should the regulations change. PSA may grant “long term exemptions” that are exemptions without a defined due date, or “temporary exemptions” that are exemptions with a defined due date.

If the NMA has granted exemptions, the Applicant does not need to re-apply for these exemptions to the PSA however PSA should be informed. For exemptions granted by other flag state authorities, the Applicant will need to re-apply for these exemptions to the PSA.

Any application for exemption should normally contain¹⁰:

- a. an overview of the provisions from which exemption is sought
- b. a statement of which special conditions that make the exception necessary or reasonable
- c. a statement of how the exemption case has been handled internally in the enterprise
- d. a description of the nonconformity and the planned duration of the nonconformity
- e. a statement of the nonconformity's individual and overall risk, both for own and other activities
- f. a description of any measures that, in whole or in part, will compensate for the nonconformity
- g. a description of any measures to correct the nonconformity

If the exemption could impact safety and the working environment, a statement from the employees' representative¹¹ shall be appended with the exemption application.

¹⁰ Reference is given to the guidelines to the Framework Regulations Section 70 Exemptions.

¹¹ Employee representatives means a wide interpretation of employee representatives, i.e. both trade union representatives, safety delegates, representatives in working environment committees, etc., depending on the individual matter.

Links:

- *Regulations relating to management and the duty to provide information in the petroleum activities and at certain onshore facilities (the Management Regulations), Section 22 Handling of nonconformities*
- *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities (the Framework Regulations), Section 70 Exemptions*
- *Audit reports on PSA website*
- *Identical letter: Principles for handling nonconformities from the HSE regulations*
- *Interpretation related to the Framework Regulation Section 24 and 70 – Søke unntak fra veiledninger?, April 2002*
- *Identical letter - Principles for handling nonconformities from the HSE regulations, PSA, January 2014*

3.5 Choose types of verification methods



Verification methods define systematic, planned activities conducted under the Applicant's supervision to verify and document that the MOU, the organisation and conditions on board satisfy requirements.

ISO defines verification as “confirmation by examination and provision of objective evidence¹² that specified requirements are met”.

The Applicant shall determine the need for and scope of verifications, as well as the verification methods and their degree of independence, to document compliance. The Applicant should describe the methods to be applied in the verification work and in which phases they will be applied (as design, construction and operation). The description may include a brief overall description with reference to implemented procedures in Applicant's organisation.

Extent, frequency and planned use of verification methods shall be an integral part of the project/MOU verification plan. The verification plan is usually based on the regulatory compliance matrix.

Table 3-1 Examples of typical verification methods and activities

VERIFICATION METHOD	ACTIVITIES
Audits and supervision carried out by Applicant	<ul style="list-style-type: none"> • Management system audits • Audits of vendors and suppliers
Use of certificates	<ul style="list-style-type: none"> • Product, component, management system • Class • Maritime

¹² “Objective evidence” is information that can be proven to be true, based on material presented through observation, measurement, testing or other methods.

VERIFICATION METHOD	ACTIVITIES
Verification during performance of maintenance	<ul style="list-style-type: none"> • Control and check versus identified rule or requirement • Training of personnel, focusing on proper use of the maintenance management system • Random testing and control
Analyses and evaluations as required by:	<ul style="list-style-type: none"> • Changes to the use of the MOU • Changed assumptions for operation • Changes in rules and regulations • Recommendations due to own experience or feedback from similar MOU or operations
Inspection and survey:	<ul style="list-style-type: none"> • Discipline inspections • Product inspections • Class surveys • Inspection by operations manager • Inspection by field operator
Design verification	<ul style="list-style-type: none"> • Design reviews • HAZIDs • HAZOPs
Other methods such as:	<ul style="list-style-type: none"> • Working 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

3.6 Perform verification activities



Verification is often performed in parallel activities, with limited use of spot checks as supplements, due to the numerous complex systems and work processes involved in the operation of a MOU. Verification is often performed in retrospect to confirm that the activities in question have been conducted satisfactorily in relation to specified requirements.

In the verification, work it is recommended to distinguish between hull/marine systems and systems which are directly related to petroleum activities, such as drilling, production or well intervention systems.

In addition to personnel employed by the Applicant; suppliers, consultants and classification societies will normally be involved in the verification work however it is important to remember that the ultimate responsibility for verification activities lies with the Applicant.

The following guidelines apply with regard to accepting work carried out as part of Applicant's verification activities:

Applicant's own activities	All activities that are planned, managed and conducted under Applicant's control may be regarded as part of Applicant's verification activities.
Classification societies	Classification in-service is used to document that the MOU and the operations on board 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, field operator, insurance companies 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.
Regulatory agencies	Supervisory activities carried out by PSA and other regulatory agencies are not 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 MOU at the time when the supervisory activities were carried out.
Field operator	In the case of new buildings, field operator's planned verification activities may be considered part of the total verification if this has been agreed between those responsible for the new building activity, e.g. drilling contractor and field operator. Such integrated verification activities shall then be documented in the project verification plan.

3.7 Qualification of the MOU



Qualification is the process the Applicant performs by documenting the results from verification activities to demonstrate that the MOU, management system and organisation comply with relevant requirements.

Applicant shall describe how it will be ensured that the verification object remains in compliance as time goes by.

The Applicant may split the description of the qualification process into initial qualification and in-service qualification under normal operations.

3.8 Develop application documentation



The AoC application should confirm that the Applicant is familiar with the requirements and that these have been duly implemented in the management system.

The application process can be resource-intensive both for the PSA and for the Applicant. Well written and structured AoC documentation will reduce the resources needed in the processing of the application. There is considerable freedom with regard to documentation form as well as extent of total verification documentation provided.

Employee participation

Employee participation is an important precondition on the NCS. Through their participation, employees must be included in decision-making processes that affect occupational health and safety, and their ability to influence their own work situation must be provided for. Employees should thus be involved in developing the AoC documentation.

The AoC application

The AoC application documentation should include:

- an application letter
- a statement from the organisation employees or their representatives regarding the application
- the purpose and plans for the facility
- the support documentation as described below
- a list of analyses and assessments carried out
- the regulatory compliance matrix
- the verification plan (Applicant’s own supervision)
- a list of nonconformities not yet closed
- a list of exemptions

Support documentation

Many Applicants choose to use the *International Association of Drilling Contractors (IADC) HSE Case Guidelines for Mobile Offshore Drilling Units, 1 January 2015 /5/*, as a reference when preparing the AoC documentation. In this way the same documentation can be used both for the NCS and the UK Continental Shelf (UKCS) if relevant. The IADC Guidelines recommends that the application has the following format:

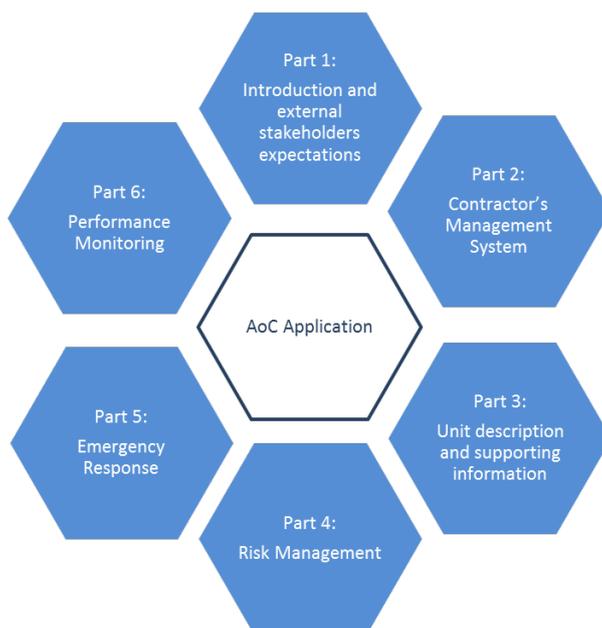


Figure 3-3: Contents of an AoC Application (based on the IADC Guidelines)

The table below shows typical topics to be covered in each part.

Table 3-2: Purpose of each part of the AoC application (based on the IADC Guidelines)

PART	CONTENT
Part 1: Introduction and external stakeholders' expectations	Provides an introduction to the AoC application and a description of how the Applicant will demonstrate compliance with regulatory and company requirements as well as external stakeholders' expectations.
Part 2: Contractor's Management System	Provides a description of the Applicant's management system to ensure that HSE risks are reduced to a tolerable level. The methods to reduce risk must be considered in Part 4.
Part 3: Unit description and supporting information	Provides a description of the equipment and systems necessary to reduce risk to a tolerable level, and to fulfil the requirements of the Applicant's Scope of Operations. The equipment and systems must be considered in Part 4.
Part 4: Risk Management	Provides a description of the Risk Management process for assuring that the risks associated with Applicant's Scope of Operations are reduced to a level that is tolerable to the Applicant and other stakeholders. The Risk Management process must consider elements described in Part 2 and the systems and equipment described in Part 3.
Part 5: Emergency Response	Provides a description of emergency response arrangements and plans. These should be described based on the Risk Management process in Part 4.
Part 6: Performance Monitoring	Provides a description of the arrangements for monitoring to ensure that the risk management measures identified in Part 4 are implemented, maintained and effective at the workplace.

For further information, please refer to the IADC Guideline.

NCS specific requirements on barrier management

The intention of barrier management on the NCS is equivalent to the UKCS where focus is on managing major accident risk. The main focus from the PSA is that:

1. Barriers are a combination of technical, operational and organisational elements
2. Information regarding barrier performance should be taken into account in daily operational risk management activities.

On the NCS there are no requirements for third party verification of barriers.

On a rig there will be a combination of maritime and installation specific technical systems acting as barriers. These systems can be placed, from a risk-based perspective, in relation to an unwanted hazardous event. This is typically illustrated in a bow-tie diagram where systems that influence the probability of having the unwanted event are placed to the left of the event and systems which mitigate or reduce the consequences of the event, are placed to the right of the event. An example of such a bow-tie diagram where SFI systems are placed according to their role is shown in Figure 3-4.

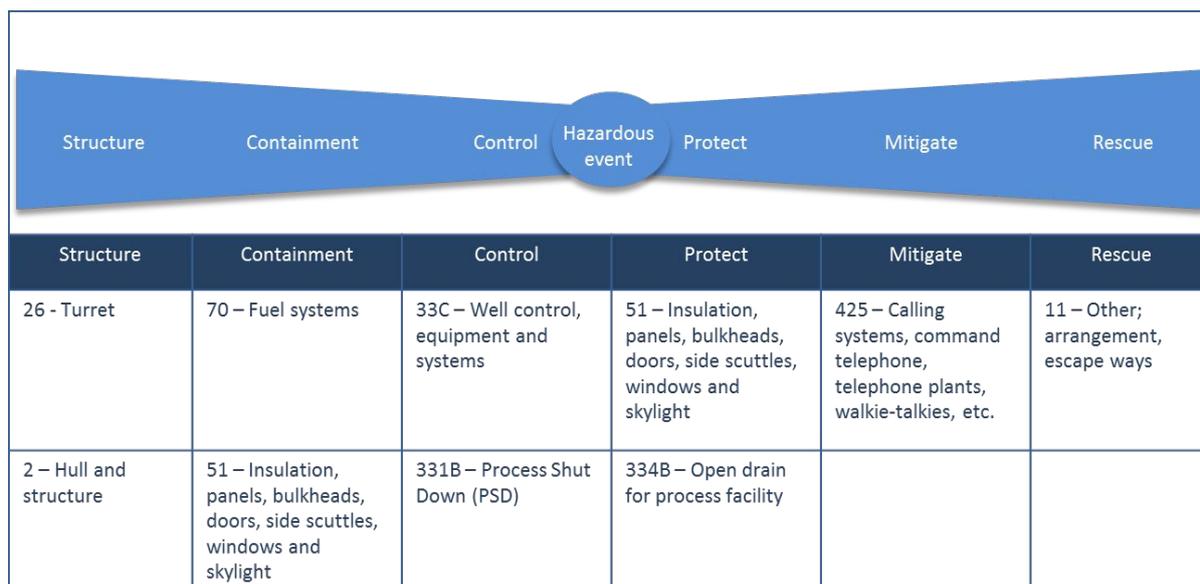


Figure 3-4. Example of a bow-tie diagram illustrating placement of SFI systems according to influence before or after a hazardous event

The report *Barrier management in operation for rig industry – Good Practices /6/* gives guidance on how to implement and manage barriers in daily operation to prevent major accidents.

- Links:*
- *Regulations relating to health, safety and the environment in the petroleum activities and at certain onshore facilities (the Framework Regulations), Section 13 Facilitating employee participation*
 - *Barrier memorandum 2017- Principles for barrier management in the petroleum industry, PSA, 2017*
 - *HSE Case Guidelines for Mobile Offshore Drilling Units, IADC, 1 January 2015*
 - *Barrier management in operation for the rig industry – Good Practices, March 2014*

4 HOW DOES THE PSA PROCESS AN AOC APPLICATION?

The figure below shows the steps in the processing of an AoC application. The steps are then described in further detail below.



Figure 4-1: Steps in the processing of an AoC application

Early meeting with PSA

An early meeting with the PSA is recommended to clarify expectations. The Applicant should contact the PSA in ample time. In consultation with the NMA, the PSA will agree on further work, contact and schedule.

Submit application

An application containing documentation as detailed in Chapter 3.8 should be submitted to the PSA. A new application for an AoC must be submitted if the MOU changes hands because the scheme also looks at the individual company's management systems.

Process application

The PSA is in charge of processing the application and will normally use the NMA as a technical expert on maritime issues except when the MOU is under Norwegian Flag. Other relevant authorities are also consulted for MOUs under international flags. The AoC is given on basis of the authorities' assessment of the condition at the time of the statement, measured against the requirements that apply for use of MOU on the NCS at the time of the decision.

Audit and verification

The PSA and other relevant authorities may conduct supervisory activities such as audits, both on board the MOU and at the Applicant's onshore organisation, to verify that the MOU and the work on board complies with requirements to, and conditions for, operation.

" Processing an application normally takes three months if the unit is to be used for drilling, assuming that the application meets the expected standards for content and quality. It can take longer to process units to be used for other activities. When the application involves an extended AoC, where the same facility is to be used for a new type of activity which requires the issue of an AoC, consideration can take less than three months." , PSA 2019 /1/

Handle additional nonconformities

If additional nonconformities are identified during the authorities' processing of the application, these nonconformities shall be corrected before the AoC is granted. As a basis for maintaining an overview of the status of nonconformities relating to the MOU, a list of all nonconformities that will

not be corrected before start-up shall be included in the AoC application. See Chapter 3.4 Handle nonconformities.

Update Application

The Applicant should update the application documentation if required (i.e. if Applicant received comments from the PSA or other authorities which require application documentation to be updated).

Issue AoC

An AoC is granted based on the authorities' evaluations of the condition, compared with the regulations that apply for use of MOUs on the NCS at the time of the statement. The acknowledgment is given on the basis of the authorities' follow-up of the Applicant and information the Applicant has provided regarding the facility and the organisational conditions.

As a minimum all safety critical nonconformities shall be corrected, maritime certificates issued, and the facility, organisation and management system shall be ready for operation at the time the AoC is issued.

5 HOW IS THE AOC TO BE MAINTAINED?

Once an AoC has been granted to an applicant, it is valid for lifetime of the MOU, irrespective of which continental shelf it is operating on. The AoC can however not be transferred to a new owner.

“It is incumbent on the Holder of the AoC to fulfil and uphold all conditions described in the AoC application, regardless of operational mode and location.”, PSA 2017, ref. /8/.

The Holder of the AoC shall at all times maintain the AoC and ensure that the MOU, the management system and the organisation are in accordance with applicable statutory and regulatory requirements. Hence, the holder is at all times responsible for maintaining the AoC documentation, actual technical conditions and governing documents. The Holder shall inform the PSA if the conditions for the AoC have changed.

It should be noted that the PSA may withdraw an AoC if they find, during audits and follow-up activities, that the Holder has severe nonconformities from the assumptions and documentation.

Managing change

Regulatory, technical, operational and organisational changes should be handled according to the Holder’s management of change process. This should include assessing the consequences of the changes on the AoC conditions and documentation. The AoC documentation shall be updated accordingly.

For changes with impact on safety critical elements, the Holder shall notify the regulator and the Operator.

Managing regulatory updates

Laws and regulations change over time and the AoC Holder shall have processes in place to monitor regulatory updates and evaluate how these updates apply to their operations.

For systems following the Facility Regulations, the technical requirements of the facility regulations are followed up as follows:

- For AoCs granted after 01.01.2018, the Holder must comply with the Facility regulations as of the time of the statement.
- For AoCs granted before 01.01.2018, the Holder must comply with Facility regulations as of 01.01.2018.
- When modifications are carried out on the MOU, the latest regulatory requirements apply for the modification and PSA shall be informed.

Where following maritime regulations, regulatory updates apply as of the next certificate renewal. In other words, when performing a renewal of maritime certificates, a gap-assessment shall be performed against the latest issue of the NMA regulations and class rules for hull and marine systems and against the facility regulations as of 01.01.2018 for non-marine systems for AoCs granted prior to 01.01.2018.

“According to the Facility Regulations §82 nr 3, non-marine systems should be gaped against the facility regulations as it stands per 1.1.2018. Thereafter, no further gap analysis is required unless major modifications are performed. The purpose of this requirement is that the requirements of the facility regulations apply after the same principle for permanent and mobile facilities. For marine systems, facilities up for certificate renewal next year shall be gapped against flag/class rules pr. 2020 and the facility regulations pr. 2018.” Correspondence PSA to DNV GL, October 2019.

Communication between Operator-AoC Holder-PSA

The Operator

The Operator shall, well before the scheduled start of activities, submit an Application for Consent (AfC) to the PSA. When the petroleum activities include contracting a MOU, the application shall contain the relevant AoC.

When applying for a consent, the Operator must take into consideration any short and long-term exemptions granted by PSA as part of the AoC. The Operator shall evaluate if it is acceptable to perform the planned petroleum activities at the specific location with the existing exemptions. These considerations shall be included in the AfC to PSA.

The AoC Holder

If the AoC Holder identifies new nonconformities, the Holder shall apply to the PSA for exemptions if necessary and inform the Operator.

The PSA

Furthermore, PSA will inform the Operator if exemptions are granted or not.

For further details regarding the differences between an AoC and a Consent please see Enclosure B.

Handling 3rd party equipment

When 3rd party equipment is hired permanently by the Holder, this shall be included in the AoC. The Holder is responsible for the equipment and possible nonconformities and exemptions.

When 3rd party equipment is temporarily hired by the Holder, this does not have to be included in the AoC. However, the Holder is still responsible for the equipment and possible nonconformities and exemptions.

When 3rd party equipment is hired by the Operator, it will be the Operator that is responsible for the equipment and possible nonconformities and exemptions.

Maintaining the AoC during lay-up and operations in external waters

In December 2017, the PSA issued a circular to the industry regarding maintenance of the AoC during lay-up and during operations in external waters (ref. /7/). The following was highlighted:

- *Lay-up*
The Holder of the AoC is responsible for ensuring that all conditions mentioned in section 25 of the Framework Regulations are provided for before the facility is re-activated for operations on the Norwegian Continental Shelf.
- *Operations in external waters*
The Holder of the AoC is responsible for ensuring that all conditions mentioned in section 25 of the Framework Regulations are provided for before the facility re-enters for operations on the Norwegian Continental Shelf.

To facilitate re-entry, changes or modifications performed during lay-up or while in external waters, should be performed according to the latest regulations and the conditions of the AoC. When planning to return to operations on the NCS, PSA shall be informed and plans for establishing the organisation as per the AoC and Norwegian statutory and regulatory requirements shall as a minimum be in place.

During operation or lay-up in external waters, the MOU will not be audited by the PSA. When in lay-up in Norwegian waters, PSA may follow-up with audits/visits.

Returning the AoC

When disposing of a MOU, the Holder must return the AoC to the PSA. Alternatively, the Holder may choose to return the AoC when no further operations are planned on the NCS.

-
- Links:*
- *Framework regulations Section 25*
 - *Circular on maintenance of AoC for mobile facilities, PSA December 2017*
-

6 REFERENCE LIST

<i>/1/</i>	<i>https://www.ptil.no/en/supervision/acknowledgements-of-compliance/acknowledgements-of-compliance-aoc/</i>
<i>/2/</i>	<i>https://www.ptil.no/en/about-us/role-and-area-of-responsibility/working-environment---our-role/</i>
<i>/3/</i>	<i>https://www.ptil.no/en/regulations/all-acts/the-framework-regulations3/III/19/</i>
<i>/4/</i>	<i>Ptil, Sikkerhet, status og signaler 2013-2014, 24.04.2014.</i>
<i>/5/</i>	<i>HSE Case Guidelines for Mobile Offshore Drilling Units, IADC, 1 January 2015</i>
<i>/6/</i>	<i>Barrier management in operation for the rig industry – Good Practices, January 2015</i>
<i>/7/</i>	<i>Circular on maintenance of AoC for mobile facilities, PSA, December 2017</i>

7 TERMS AND ABBREVIATIONS

The following terms are used in the Handbook and Enclosures:

Applicant	Responsible body for operation of MOU who applies for an AoC
Holder	Responsible body for operation of MOU who has been granted an AoC
MOU	Mobile Offshore Unit e.g. units for drilling (MODU), production, drilling, storage and/or offloading (FPDSO, FPSO and FSU), accommodation units and well intervention units
Operator	Anyone executing on behalf of the licensee the day to day management of the petroleum activities
SFI	A coding and classification system widely used in the maritime and offshore industry worldwide, which provides a functional subdivision of technical and functional information on a ship or rig.

The following abbreviations are used in the Handbook and Enclosures:

ALARP	As Low as Reasonably Practicable
AfC	Application for Consent
AoC	Acknowledgement of Compliance
FacR	The Facilities Regulations
FR	The Framework Regulations
IADC	International Association of Drilling Contractors
IMO	International Maritime Organisation
MOU	Mobile Offshore Unit
MODU	Mobile Offshore Drilling Unit
NCS	Norwegian Continental Shelf
NLIA	Norwegian Labour Inspection Authority
NMA	Norwegian Maritime Authority
NPD	Norwegian Petroleum Directorate
PSA	Petroleum Safety Authority
UKCS	United Kingdom Continental Shelf

8 ENCLOSURES

The following Enclosures support this Handbook:

ENCLOSURE	CONTENT
A	List of DNV GL and ABS Classification rules (only offshore class based standards)
B	Difference between an AoC and a Consent
C	Difference between an AoC and a Safety Case
D	Technical norms and standards for the different areas on a MOU
E	Applicability of Framework Regulations Section 3 – MOU variations

Enclosure A - DNV GL and ABS Classification rules (only offshore class based standards)¹³

DNV GL

Offshore Classification Rules

- DNVGL-RU-OU-0101: Rules for Classification of Offshore Drilling and Support Units
- DNVGL-RU-OU-0102: Rules for Classification of Floating Production, Storage and Loading Units
- DNVGL-RU-OU-300: Rules for Classification of Offshore Units – Fleet in Service

Offshore Standards

- DNVGL-OS-A101: Safety Principles and Arrangement
 - DNVGL-OS-A201: Winterization for Cold Climate Operations
 - DNVGL-OS-A301: Human Comfort
 - DNVGL-OS-B101: Metallic Materials
 - DNVGL-OS-C101: Design of Offshore Steel Structures, General
 - DNVGL-OS-C102: Structural Design of Offshore Ship-Shaped Units
 - DNVGL-OS-C103: Structural Design of Column-Stabilised Units
 - DNVGL-OS-C104: Structural Design of Self-Elevating Units
 - DNVGL-OS-C105: Structural Design of TLPs
 - DNVGL-OS-C106: Structural Design of Deep Draught Floating Units
 - DNVGL-OS-C201: Structural Design of Offshore Units -WSD method
 - DNVGL-OS-C301: Stability and Watertight Integrity
 - DNVGL-OS-C401: Fabrication & Testing of Offshore Structures
 - DNVGL-OS-D101: Marine & Machinery Systems & Equipment
 - DNVGL-OS-D201: Electrical Installations
 - DNVGL-OS-D202: Automation, Safety & Telecommunication Systems
 - DNVGL-OS-D301: Fire Protection
 - DNVGL-OS-E101: Drilling Facilities
 - DNVGL-OS-E201: Oil and Gas Processing Systems
 - DNVGL-OS-E301: Position Mooring
 - DNVGL-OS-E302: Offshore Mooring Chain
 - DNVGL-OS-E303: Offshore Fibre Ropes
 - DNVGL-OS-E304: Offshore Mooring Steel Wire Ropes
 - DNVGL-OS-E401: Helicopter Decks
 - DNVGL-OS-E403: Offshore Loading Units
-

¹³ Lloyds register rules are not included as they do not have N-notation.

ABS

Rules

- ABS Rules for Building and Classing Mobile Offshore Units
 - ABS Rules for Building and Classing Marine Vessels
 - ABS Guide for the Classification of Drilling Systems
 - ABS Guide for Building and Classing Drillships
 - ABS Rules for Building and Classing Floating Production Installations
 - ABS Rules for Building and Classing Facilities on Offshore Installations
 - ABS Guide for Building and Classing Subsea Riser Systems
 - ABS Guide for Building and Classing Subsea Pipeline Systems
 - ABS Guidance Notes on Accidental Load Analysis and Design for Offshore Structures
 - Guide for Vessels Operating in Low Temperature Environments
 - ABS Guide for Certification of Lifting Appliances
 - ABS Guide for Certification of Offshore Gangways
 - ABS Guidance note on Review and Approval of Novel Concepts
-

Enclosure B - Difference between an AoC and a Consent

Consent is required for some activities on the NCS. The *field operator* is responsible for submitting the application for consent to the PSA well before the scheduled start of activities. The application for consent can cover several activities that are naturally related.

Typical activities that need consent are:

- Prior to carrying out exploration drilling
- Prior to carrying out surveys with drilling depth more than 200 meters
- Before facilities are put into service
- Prior to major modifications or changes in use or activities

The consent regime is stipulated in The Framework Regulations Section 29 *Application for consent* and the Management Regulations Section 25 *Consent requirements for certain activities*.

An AoC must be obtained in connection with a specific application for consent to petroleum activity, which implies the application of a MOU, unless an AoC has already been obtained.

Such a consent application will consist of two parts:

- One part which encompasses the location and activity specific matters
- One part which encompasses the MOU specific matters, i.e. technical condition, the MOU organisation and management system

The contents of an application for consent are binding and are used as a basis for the authorities' supervision activities after the consent has been granted.

The applications for consent will be processed by the PSA, the Norwegian Environment Agency and the Norwegian Board of Health.

Enclosure C - Difference between an AoC and a Safety Case

The NCS shares many characteristics with the adjoining UK Continental Shelf (UKCS) and many MOUs move between these continental shelves on a semi-regular basis. The equivalent scheme to the AoC in the UK is called the Safety Case. A comparison between the AoC and Safety Case is shown below.

Table 8-1 Comparison of AoC and Safety Case

	AoC	SAFETY CASE
What is it?	A declaration issued to express the authorities' confidence that the MOU and its organization and management system can be operated in accordance with all requirements.	A document that gives confidence to operators, owners, workers and the competent authority, that the duty holder has the ability and means to control major accident hazards effectively.
Enforcing agency	The Petroleum Safety Authority (PSA)	The Offshore Safety Directive Regulator (OSDR) as competent authority (the competent authority comprises of the Health and Safety Executive (HSE) and the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) working in partnership).
Regulatory basis	The Framework Regulations, Section 25 Application for Acknowledgement of Compliance for certain offshore mobile facilities.	Directive 2013/30/EU of the European Parliament and of the Council on safety of offshore oil and gas operations. The Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015.
Management system requirements	Include description of established management and control systems in order to manage the MOU activities by means of references to relevant governing documents, manuals, handbooks, etc. The management and control systems shall address all HSE concerns. Quality assurance requirements should be described.	The arrangements within the Safety and Environmental Management System (SEMS) need to address all aspects of the organisation's health, safety and environmental arrangements and should be sufficient to manage and control risks associated with major accident hazards. As a minimum, the documented SEMS must address matters such as organisational structure, responsibilities, practices, procedures, processes and resources for determining the content of the CMAPP and the arrangements for implementing it.
Major accident hazards/ risks	All AoC applications shall contain a description of the HSE analyses and assessments that have been carried out for the facilities covered in the application, and the results and measures that will be implemented as a result of these assessments.	The duty holder must prepare (and include in its Safety Case) a written Corporate Major Accident Prevention Policy which establishes the overall aims and arrangements for controlling major accident risks and how those aims are to be achieved. Demonstrate that all Major Accident Hazards and Major Environmental Incidents have been identified, their likelihood and consequences have been evaluated, and that

	AoC	SAFETY CASE
		suitable measures, including the selection and deployment of associated safety and environmental-critical elements have been, or will be, taken to control those risks to ensure that the relevant statutory provisions will be complied with.
Safety and Environmental Critical Elements¹⁴ (SECEs)	Requirements for risk reduction (Management Regulations §4) and barriers (Management Regulations §5) cover, to a large extent, the intention of SECE though the term “SECE” is not explicitly used. Performance requirements must be established.	SECEs means such parts of an installation and its plant (including computer programmes) - the failure of which could cause or contribute substantially to a major accident; or a purpose of which is to prevent, or limit the effect of, a major accident.
Verification scheme	The responsible party shall determine the need for and scope of verifications, as well as the verification method and its degree of independence, to document compliance with HSE legislation.	<p>Formal written verification scheme where the description of how the SECEs are to be kept available at the standard defined in the performance standards.</p> <p>The overall objective of the verification scheme is to establish a system of independent and competent scrutiny of SECE’s throughout the life cycle of an installation and to obtain assurance that the performance standards are achieved and maintained. A description of the verification scheme will be required as part of the Safety Case submission.</p> <p>This includes establishing Performance standards for SECEs; based on the risk assessment performed; to reduce the risks to people and the environment from major accident hazards according to relevant statutory provisions.</p> <p>The scheme provides independent and competent assessment of the SECEs against the requirements of the performance standards.</p>
Independent competent person	<p>Not applicable.</p> <p>The responsible party shall determine the degree of independence as part of the verification scheme.</p>	In UK there is a mandatory requirement for an independent competent person (ICP)/Verifier to be engaged by the duty holder. The Verifier will formally issue a *initial suitability* statement which is a prerequisite to start operations in the UKCS. this initial suitability statement is based on audits on engineering, maintenance, written verification scheme, performance standards, etc which will give a satisfactory perspective

¹⁴ SECEs are defined in SCR15 as “such parts of an installation and such of its plant (including computer programmes), or any part thereof (a) the failure of which could cause or contribute substantially to; or (b) a purpose of which is to prevent, or limit the effect of, a major accident”.

	AoC	SAFETY CASE
		of safe operations for the unit.
Follow-up	The holder is at all times responsible for maintaining the AoC documentation, actual technical conditions and governing documents. The Holder shall inform the PSA if the conditions for the AoC have changed.	<p>A yearly verification is made on-board according to the written verification scheme/performance standards previously commented and approved by the Verifier. Managing potential deviations found during this verification is part of the yearly activities and interfaces between duty holder and Verifier.</p> <p>The Safety Case requires a formal 5 yearly thorough review process, as a minimum commented by an independent party, where potential modifications, reviews, updates, on the people, plant and process are to be analysed and reflected</p>

The regulatory basis for the AoC scheme is described in Chapter 2. The regulatory basis for the Safety Case is shown in Table 8-2 below:

Table 8-2 showing relevant UK acts and regulations for the Safety Case

UK LEGISLATION	DESCRIPTION
The Health and Safety at Work, etc. Act 1974	Primary legislation which imposes the duty on the employer / owner of work premises (the duty holder) to safeguard the health, safety (and welfare) of people who may be affected by his undertakings. Almost all safety regulation in the UK is under this Act.
The Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015	The primary aim of the SCR 2015 is to reduce the risks from major accident hazards to the health and safety of the workforce employed on offshore installations or in connected activities. These Regulations also aim to increase the protection of the marine environment and coastal economies against pollution and ensure improved response mechanisms in the event of such an incident.
The Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995 (MAR)	MAR covers such matters as the appointment of installation managers, the use of permit-to-work systems, communication arrangements, helideck operations, records of persons on board and the collection of meteorological and oceanographic information.
The Offshore Installations (Prevention of Fire & Explosion, and Emergency Response) Regulations 1995 (PFEER)	PFEER requires a risk-based systematic approach to managing fire and explosion hazards including preventing fires and explosions on offshore installations, protecting people from the effects of any which do occur and measures to secure effective emergency response.
The Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996 (DCR)	DCR is in two volumes, relating to the integrity of installations and wells respectively. Regulations include requirements for safeguarding the integrity of an installation / well throughout its life cycle, from design and construction, through operation and maintenance, to decommissioning and dismantling.

UK LEGISLATION	DESCRIPTION
Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989 (OSRSCR)	OSRSCR places a duty on the installation operator or owner to consult safety representatives appointed under those Regulations on the preparation, review and revision of a Safety Case for the installation.
The Management of Health and Safety at Work Regulations, 1999	These are very broad regulations that require the duty holder to put in place a (written) management system, assign competent people / supervision / etc., and conduct risk assessments for any activities that are a risk to the health and safety of people.
The Provision and Use of Work Equipment Regulations of 1998 (PUWER)	PUWER places duties on employers who own, operate or have control over work equipment. PUWER also places responsibilities on businesses and organisations whose employees use work equipment, whether owned by them or not.

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- Links:*
- *Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations*
 - *Offshore health and safety law, HSE website*
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Enclosure D - Technical norms and standards for the different areas on a MOU

Where the Framework Regulations (FR) Section 3 is applied differently within one SFI group based on use of the equipment/system, the SFI coding is complemented by letters to indicate: A- DRILLING EQUIPMENT AND SYSTEMS, B – PRODUCTION EQUIPMENT AND SYSTEMS, C – WELL INTERVENTION EQUIPMENT AND SYSTEMS.

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
CHAPTER I	INTRODUCTORY PROVISIONS			
Section 1	Scope			
Section 2	Responsibilities			
Section 3	Definitions			
CHAPTER II	GENERAL PROVISIONS			
Section 4	Choice of development concept			
Section 5	Design of facilities			
Internal ref.: Sec. 7 Sec. 11 Sec. 13 Chapter IV	Management Regulations, Chapter II Management Regulations, Section 5 Management Regulations, Chapter V Framework Regulations, Section 11 Regulations 602/2009 on hazardous substances (in Norwegian only) Regulations 922/2002 on explosive substances (in Norwegian only) NORSOK S-001 NORSOK S-002 NORSOK R-002 NORSOK U-100, Chapter 7.6	11 – Other; Arrangement Hazardous area	Yes	NMA Construction NMA Living Quarter NMA Fire
		34B - Loadbearing Structure for Process Equipment	Yes	NMA Production

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	NS-EN ISO 13702 w/appendices IEC 61892-7 Alternatively: DNVGL-OS-A101			
Section 6	Design of simpler facilities without accommodation			
Section 7	Main safety functions			
		11 - Other; Arrangement Escape ways	Yes	NMA Construction NMA Living Quarter NMA Fire
		51 - Insulation, panels, bulkheads, doors, side scuttles, windows, skylight	Yes	NMA Construction, Sec. 6 NMA Living Quarter, Sec. 6 NMA Fire, Sec. 19-21
Section 8	Safety functions			
Internal ref.: Sec. 5	Management Regulations, Sections 4 & 5 Activities Regulation, Section 26 NORSOK I-002, Chapter 4 NORSOK S-001 IEC 61508 ISO 13849 NS-EN ISO 13702 Norwegian Oil and Gas Guideline No.070	331B - Process Shut Down (PSD)	No	
		332B - Emergency Shut Down (ESD)	No	
		333B - De-pressurisation, Safety Valves, Corresponding Flare System	No	
		334B - Open Drain for Process Facility	No	
		79 - Automation systems for machinery	Yes, regarding technical requirements No, regarding ergonomic (human factor) requirements	NMA Ballast NMA Stability NMA Fire NMA Risk analysis, Sec. 22 DNVGL-OS-D202 Instrumentation and Telecommunication Systems DNVGL-OS-D101 Marine and

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
				<p>Machinery Systems and Equipment</p> <p><i>Note I:</i> Ref. Sec. 63 (SFI 408) for dynamically positioned facilities</p> <p><i>Note II:</i> The structure of this alternative is presupposing that requirements regarding control systems for ballast water, bilge, watertight closures and fire/gas detection systems are evaluated under this alternative</p>
CHAPTER III	OVERALL JOINT REQUIREMENTS			
Section 9	Qualification and use of new technology and new methods			
Section 10	Installations, systems and equipment			
Internal ref.: Sect. 5	<p>Working Environment Act</p> <p>Norwegian Labour Inspection Authority, Law mirror</p> <p>Regulations 1357/2011 Conduct of work regulations</p> <p>NORSOK D-001</p> <p>NORSOK D-002</p> <p>NORSOK L-002</p> <p>NORSOK L-004</p> <p>NORSOK P-002</p> <p>NORSOK R-001</p> <p>NORSOK R-002</p> <p>NORSOK S-002, chap 5. and A12 I</p> <p>Annex A</p>	26 - Turret	Yes	NMA Production, Sec. 15
		30A - Derrick with components	No	
		31A - Drill floor equipment and systems	No	
		32A - Bulk and mud systems	No	
		33A - Well control equipment and systems	No	
		34A - Pipe handling equipment and systems	No	
		35A - Drill string and downhole equipment and systems	No	
		36A - Material handling equipment and systems	No	
		37A - Service equipment and systems	No	
		38A - Miscellaneous equipment, systems and services	No	
39A - Marine riser, Riser Compensator and Drillstring	No			

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	<p>NORSOK U-001 NORSOK U-100 NORSOK U-101 NORSOK Z-015 NORSOK Z-DP-002</p> <p>ISO 13628 IMCA/AODC 035 NS-EN ISO 11064 NS-EN ISO 20815 IEC 61892</p> <p>Alternatively: DNVGL-OS-D101 DNVGL-OS-D201 DNVGL-OS-D202 DNVGL-OS-E101</p>	31B - Auxiliary Equipment, Dedicated Process Equipment	No	
		32B - Chemicals Equipment	No	
		36B - Offloading equipment	No	
		37B - Metering for oil & gas export/-injection, combustion gas, flaring of gas etc.	No	
		301B - Inlet from risers, manifolds, swivel etc. (field specific conditions)	No	
		302B - Separation Equipment (including water treatment)	No	
		303B - Compression Equipment	No	
		304B - Water Injection equipment	No	
		334B - Open Drain for Process Facility	No	
		30C - Drilling Derrick w/components	No	
		31C - Work floor, Equipment and Systems	No	
		32C - Bulk- and Drill Fluid Systems	No	
		33C - Well control, Equipment and Systems	No	
		36C - Material Handling, Equipment and Systems	No	
		38C – Miscellaneous equipment, systems and service	No	
		46 - VOC/blanket gas system	Yes	NMA Production
		441 - Machine tools, cutting & welding equipment	Yes	NMA Welding equipment
		442 - Tools/equip. for engineers, electr., boatswains, carpenters	Yes	NMA Welding equipment
		443 - Painting equipment, scaffolding, paint rafts/boats (gigs)	Yes	NMA Welding equipment
		444 - Cleaning equipment, garbage chutes	Yes	NMA Welding equipment

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
		445 - Garbage disposal plants, incinerators	Yes	NMA Welding equipment
		446 - Outfitting in store rooms & workshops	Yes	NMA Welding equipment
		447 - Clamps/foundations for spare parts	Yes	NMA Welding equipment
		65 - Motor aggregates for main electric power production	Yes	DNVGL-OS-D201 Electrical Systems and Equipment DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		70 - Fuel systems	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		71 - Lube oil systems	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		72 - Cooling systems	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		73 - Compressed air systems	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
Section 10a	Ignition source control			
	NORSOK S-001, Ch. 15 ISO 13702, Ch. 8 EN 1127-1 Regulations 1242/1996 relating to equipment and safety systems for use in areas with explosion hazard (in Norwegian only) As regards mobile facilities: MODU Code, Ch. 6.6 and 6.7.2	65 - Motor aggregates for main electric power production 66 - Other aggr. & gen. for main & emergency el. power production	Yes No, for production plant Yes, regarding emergency power No, regarding quantity and quality of emergency lighting	DNVGL-OS-D201 Electrical Systems and Equipment DNVGL-OS-D101 Marine and Machinery Systems and Equipment NMA Construction, Sec. 11-12 NMA Production DNVGL-OS-D101 Marine and Machinery Systems and Equipment <i>Note:</i> For accommodation units, ref. is made

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
			No, for production plant	to DNVGL-RU-OU-0101, Ch.2 Sec.
		74 - Exhaust systems and air intakes	Yes No, for production plant	NMA Fire, Sec. 24-25 DNVGL-OS-A101 Safety principles and Arrangement* Ch. 2 Sec. 2 §3.2, Sec. 3 DNVGL-OS-D101 Marine and Machinery Systems and Equipment*, Ch.2 Sec. 4 §11 DNVGL-OS-E101 Drilling plant, Ch. 2 Sec. 1 §4.3 * *only relevant for ventilation in hazardous areas
		85 - Electrical systems general part	Yes No, for production plant	NMA Construction (referring to 89/336/EEC and 92/31/EEC) DSB Regulations 1450/2001 relating to maritime electrical systems
		86 - Electrical power supply	Yes No, for production plant	DSB Regulations 1450/2001 relating to maritime electrical systems
		87 - Electrical distribution common systems	Yes No, for production plant	DSB Regulations 1450/2001 relating to maritime electrical systems Note: Refer to Sec. 63 (SFI 408) for dynamically positioned facilities

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
		88 - Electrical cable installation	Yes No, for production plant	DSB Regulations 1450/2001 relating to maritime electrical systems <i>Note:</i> Refer to Sec. 63 (SFI 408) for dynamically positioned facilities
		89 - Electrical consumers (lighting etc.)	Yes No, for production plant	NMA Construction, Sec. 6a, 12, 19 DSB Regulations 1450/2001 relating to maritime electrical systems
Section 11	Loads/actions, load/action effects and resistance			
Internal ref.: Sec. 3 Sec. 5 Sec. 7	<p>Framework Regulations, Section 11</p> <p>NORSOK D-001, Ch. 5, 6 NORSOK D-010, Ch. 4, 5 NORSOK L-002, Ch. 6 NORSOK N-001 NORSOK N-003 NORSOK N-004 NORSOK S-001 NORSOK Z-013, Annex B</p> <p>ISO 13623, Ch. 6 API 17J, Ch. 5</p> <p>Alternatively: DNVGL-OS-A101, Ch. 2 DNVGL-ST-F101, Sec. 3, 4, 5 DNVGL-ST-F201, Sec. 3, 4, 5</p>	2 - Hull and Structure	Yes	<p>NMA Construction, Sec. 6, Sec. 7 and Sec. 10, implications of</p> <p>NMA Stability, Sec. 22 and Sec. 30 and the following standards:</p> <p>DNVGL-OS-C101 Design of Offshore Steel Structures General (LFRD method)</p> <p>DNVGL-OS-C102 Structural Design of Offshore Ship-shaped units</p> <p>DNVGL-OS-C103 Structural Design of Column Stabilised Units (LRFD method)</p> <p>DNVGL-OS-C104 Structural Design of Self-elevating Units (LRFD method)</p> <p>DNVGL-OS-C201 Structural Design of Offshore Units (WSD method)</p>

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
				<p>DNVGL-OS-A101 Safety Principles and Arrangement</p> <p>The DNVGL-OS that will be applied when using Sec. 3 in FR are the same as those referred to in FacR, apart from DNVGL-OS-C201.</p>
		30A - Derrick with components	No	
		31B - Auxiliary Equipment, Dedicated Process Equipment	No	
		32B - Chemicals Equipment	No	
		34B - Loadbearing Structure for Process Equipment	Yes	NMA Production
		301B - Inlet from risers, manifolds, swivel etc. (field specific conditions)	No	
		302B - Separation Equipment (including water treatment)	No	
		303B - Compression Equipment	No	
		304B - Water Injection equipment	No	
Section 12	Materials			
Internal ref.: Sec. 11	<p>NORSOK M-001 NORSOK M-004 (replaces R-004) NORSOK M-101 NORSOK M-501 NORSOK M-503 NORSOK M-601 NORSOK N-001</p> <p>DNVGL-ST-F101, Sec. 6, 7 DNVGL-ST-F201, Sec. 7</p>	<p>20 - Hull materials, general hull work</p> <p>27 - Material protection, external</p>	<p>Yes</p> <p>Yes</p>	<p>Referenced standards in FacR are the same as those applied when using Sec. 3 in FR, with the exception of the NORSOK references. The choice will hence be whether or not NORSOK shall be applied.</p> <p>Referenced standards in FacR are the same as those applied when using Sec. 3 in FR, with the exception of the NORSOK references. The choice will</p>

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	API 17J, Ch. 6			hence be whether or not NORSOK shall be applied.
	ISO 13623, Ch. 8 ISO 1182 ISO 1716 ISO 5657 ISO 5660-1 ISO 9705	28 - Material protection, internal	Yes	Referenced standards in FacR are the same as those applied when using Sec. 3 in FR, with the exception of the NORSOK references. The choice will hence be whether or not NORSOK shall be applied.
	NT Fire 036 for testing of pipeline insulation	31B - Auxiliary Equipment, Dedicated Process Equipment	No	
		32B - Chemicals Equipment	No	
	IMO Resolution A.471 (XII) IMO Resolution A.653 (16)	34B - Loadbearing Structure for Process Equipment	Yes	NMA Production
	IEC 60331 IEC 60332	301B - Inlet from risers, manifolds, swivel etc. (field specific conditions)	No	
	Alternatively: DNVGL-OS-B101 DNVGL-OS-C102, Ch. 2 DNVGL-OS-C103, Ch. 2 DNVGL-OS-C104, Ch. 2	302B - Separation Equipment (including water treatment)	No	
		303B - Compression Equipment	No	
		304B - Water Injection equipment	No	
Section 13	Materials handling and transport routes, access and evacuation routes			
Internal ref.: Sec. 20 Sec. 70	Regulations concerning organisation, management and employee participation, section 10-1 The Workplace Regulations, sections 2-5, 2-18, 2-25	11 - Other; Arrangement Escape ways	Yes ¹ , regarding access, transport routes and escape ways (incl. stairs)	NMA Construction NMA Living Quarter NMA Fire

¹ Maritime regulations can be used as an alternative norm to the Facilities Regulations.

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	<p>Regulations concerning the performance of work, section 17</p> <p>Regulations concerning construction, design and production of work equipment and chemicals (Norwegian only), Chap. 4</p> <p>NMA Construction, Section 14-17</p> <p>NORSOK C-001, Ch. 7.28 and 7.15 NORSOK C-002, Ch. 5, 6 NORSOK R-002, Appendix B NORSOK S-001, Ch. 6, 7, 22 NORSOK S-002, Ch. 6.1, 6.2, 6.2.1, 6.3 and 8.1</p> <p>DNVGL-ST-0358</p> <p>Alternatively: DNVGL-OS-A101 NSA Norm for physical-chemical working environment, Ch. 5.2.6.3</p>		No, regarding thresholds and ladders	
		36C - Material Handling, Equipment and Systems	No	
Section 14	Ventilation and indoor climate			
Internal ref.: Sec. 22	<p>NLIA 444 Guidelines on climate and air quality</p> <p>NIPH Recommended technical standards for indoor climate</p> <p>NORSOK H-003 NORSOK S-001, Ch. 17.4 NORSOK S-002, Ch. 7.5 and 7.7 NORSOK U-100, Ch. 5.2.2, 5.2.3</p>	<p>11 - Other; Working environment</p> <p>57 - Ventilation, air-conditioning and heating system</p>	<p>No</p> <p>Yes, regarding fire protection</p> <p>No, regarding working environment</p> <p>No, for</p>	<p>NMA Fire</p> <p>NMA Construction</p> <p>DSB Regulations 1450/2001 relating to maritime electrical systems</p> <p>DNVGL-OS-A101 Safety principles and Arrangement</p>

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	<p>NS-EN ISO 15138</p> <p>Alternatively: DNVGL-OS-D101, Ch. 2 Sec. 4 NSA Norm for physical-chemical working environment</p>		production plant	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
Section 15	Chemicals and chemical exposure			
Internal ref.: Sec. 5 Sec. 36	<p>Activities Regulation, Chapter XI</p> <p>Regulations 1357/2011 concerning the performance of work, Sec. 2, 3 (except 3-23, 3-24, 3-27), 4 (except 4-4), 7, 12-6, 31-1, 31-6, 31-7</p> <p>Regulations 1358 /2011 concerning action and limit values, Sec. 5, App. 1</p> <p>The Workplace Regulations 1356/2011, Sec. 4-1, 7-1, 7-2, 7-3, 7-4</p> <p>Regulations 1355/2011 concerning organisation, management and employee participation, Sec. 2-1, 10-1, 10-6, 11-1, 14-6</p> <p>Act 62/2005 relating to work environment, Sec. 3-1, 4-5, 5-3, 18-1</p> <p>Regulations 922/2002 on explosive substances (in Norwegian only), Ch. 7</p> <p>NORSOK P-002, Ch. 20 NORSOK S-002, Ch.6.1, 6.2.9., 6.3, 7.5, 7.7.2 and A2 and A.7 in Annex A</p>	11 - Other; Working environment	No	
	32B - Chemicals Equipment	No		

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	Alternatively: NSA Norm for physical-chemical working environment, Sec. 5.2.1			
Section 16	(Repealed by Regulations 23 December 2013)			
Section 17	Instrumentation for monitoring and recording			
	Activities Regulations, Chapter X Management Regulations, Section 19 CAA Regulations 81/2008 relating to flight weather service (in Norwegian only) CAA Regulations 1181/2007 relating to flight over the continental shelf (in Norwegian only) NS_EN ISO 19901-1:2015, part 1	37B - Metering for oil & gas export/-injection, combustion gas, flaring of gas etc. 417 - Miscellaneous nautical equipment	No No	
Section 18	Systems for internal and external communication			
	Activities Regulations, Section 77 NORSOK S-001, Ch. 18 NORSOK T-003 NORSOK T-101 NORSOK U-100, Ch. 7.14	425 - Calling systems, command telephone, telephone plants, walkie-talkies, etc. 811 - Fire detection, fire and lifeboat alarm systems	Yes Yes, except for specific requirements for sound and	NMA Fire, Sec. 22, 23, 25 NMA Cranes and lifting operations NMA Radio equipment NMA Anchoring, Sec. 12 Specific requirements for alarm systems, see Sec. 32 (SFI 811) NMA Fire, Sec. 22-25 NMA Production, Sec. 21-22

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
			light alarms	
Section 19	Communications equipment			
	Management Regulations, Section 17	421 - Radio plant	Yes	NMA Radio equipment
	NORSOK U-100, Ch. 7.14	422 - Lifeboat radio transmitters, emergency radio, direction finder	Yes	NMA Life-saving appliances, Sec. 10
CHAPTER IV	DESIGN OF WORK AND COMMON AREAS			
Section 20	Ergonomic design			
Internal ref.: Sec. 21	Activities Regulations, Section 34 NORSOK S-002, Ch. 6.1, 6.2, 6.3, 7.5.6, 7.8, 7.9, 8.1, 8.2 ISO 6385 Alternatively: NSA Norm for physical-chemical working environment, Sec. 5.2.6	11 - Other; Working environment	No	
Section 21	Human-machine interface and information presentation			
Internal ref.: Sec. 34a	NORSOK S-002, Ch. 7.8.3, A.9 in Annex A NS-EN 614, Part 1 EN 894, Parts 1-3 Alternatively: NSA Norm for physical-chemical	11 - Other; Arrangement Escape ways Hazardous area Winterization Working environment	No	
		331B - Process Shut Down (PSD)	No	
		332B - Emergency Shut Down (ESD)	No	

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	working environment, Sec. 5.2.6.2	333B - De-pressurisation, safety valves, corresponding flare system		
		334B - Open drain for process facility	No	
		79 - Automation systems for machinery	Yes	<p>NMA Ballast</p> <p>NMA Stability</p> <p>NMA Fire</p> <p>NMA Risk analysis, Sec. 22</p> <p>DNVGL-OS-D202 Automation, safety and Telecommunication Systems</p> <p>DNVGL-OS-D101 Marine and Machinery Systems and Equipment</p> <p>Note I: Ref. Sec. 63 (SFI 408) for dynamically positioned facilities</p> <p>Note II: The structure of this alternative is presupposing that requirements regarding control systems for ballast water, bilge, watertight closures and fire/gas detection systems are evaluated under this alternative.</p>
Section 22	Outdoor work areas			
	NORSOK S-002, Ch. 7.9 and A.8 in Annex A	11 - Other; Working environment	No	
		53 - External deck covering, steps, ladders, etc., fore-and-aft gangway	Yes	NMA Construction
		57 - Ventilation, air-conditioning and heating system	Yes, regarding fire protection No, regarding	NMA Fire DNVGL-OS-A101 Safety principles and Arrangement

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
			working environment	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
Section 23	Noise and acoustics			
Internal ref.: Sec. 38	<p>Activities Regulations, Section 38</p> <p>NORSOK S-002, Ch. 6.1, 6.3.1, 7.1, 7.2, 7.3, 7.4, 8.2 and A.5 in Annex A</p> <p>NORSOK U-100, Ch. 5.2.2.6</p> <p>Alternatively: NSA Norm for physical-chemical working environment, Sec. 5.2.2</p>	11 - Other; Working environment	No	
Section 24	Vibrations			
	<p>Regulations 1357/2011 concerning the performance of work, Sec. 14-8, 14-9, 14-12, 14-13, 14-14</p> <p>Regulations 1358/2011 relating to action values and threshold values, Sec. 3</p> <p>Regulations 1355/2011 concerning organisation, management and employee participation, Sec. 10-1, 14-6</p> <p>NS 4931</p> <p>NORSOK S-002, Ch. 6.1, 7.1, 7.2, 8.2 and A.5 in Annex A</p> <p>Alternatively: NSA Norm for physical-chemical working environment, Sec. 5.2.3</p>	<p>11 - Other; Working environment</p> <p>303B - Compression Equipment</p>	<p>No</p> <p>No</p>	

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 25	Lighting			
	NORSOK S-002, Ch. 7.6, 8.2 Alternatively: NSA Norm for physical-chemical working environment, Sec. 5.2.4	11 - Other; Working environment	No	
Section 26	Radiation			
	Activities Regulations, Section 37 NORSOK S-002, Ch. 6.2.10	11 - Other; Working environment	No	
Section 27	Equipment for personnel transport			
	Activities Regulations, Section 92 NORSOK R-002, Annex G	37A - Service equipment and systems	No	
		38A - Miscellaneous equipment, systems and services	No	
		561 - Personnel lifts, escalators	No, for lifting equipment on drill floor Yes, for other equipment	<i>Equipment for lifting personnel other than on drill floor:</i> NMA Protective, environmental <i>Lifts:</i> NMA Construction Sec. 23 alternatively: DNV's Rules for certification of lifts onboard ships, MOUs and offshore installations
Section 28	Safety signs			
	Regulations 1355/2011 relating to organization, management and participation, Sec. 10-5 Regulations 1356/2011 relating to	448 - Name plates (markings) on machinery, equipment, pipes cables	Yes	NMA Protective, environmental

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	<p>workplace, Sec. 4-2, 5</p> <p>Alternative for signs to response, rescue and evacuation equipment: NORSOK C-002</p> <p>NS 6033</p>			
CHAPTER V	PHYSICAL BARRIERS			
Section 29	Passive fire protection			
Internal ref.: Sec. 11	<p>NORSOK S-001, Ch. 20</p> <p>ISO 834 ISO 3008 ISO 3009 ISO 22899-1 Part 1</p> <p>NT Fire 021</p> <p>Alternatively: DNVGL-OS-A101, Ch. 2 Sec. 2 DNVGL-OS-D301</p>	51 - Insulation, panels, bulkheads, doors, side scuttles, windows, skylight	<p>Yes</p> <p>No, for production plant</p>	<p>NMA Construction, Sec. 6</p> <p>NMA Living Quarter, Sec. 6</p> <p>NMA Fire, Sec. 19-21</p>
Section 30	Fire divisions			
Internal ref.: Sec. 7 Sec. 11 Sec. 12 Sec. 31	<p>DNVGL-OS-A101, Ch. 2 Sec. 1 §3.6</p> <p>ISO 3008 or NS 3907 ISO 3009 or NS 3908 IMO Resolution A.754 (18)</p> <p>Alternatively: DNVGL-OS-D301, Ch.2 Sec. 1</p>	51 - Insulation, panels, bulkheads, doors, side scuttles, windows, skylight	<p>Yes</p> <p>No, for production plant</p>	<p>NMA Construction, Sec. 6</p> <p>NMA Living Quarter, Sec. 6</p> <p>NMA Fire, Sec. 19-21</p>

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 31	Fire divisions in living quarters			
	NORSOK S-001, Ch. 20.4.6	51 - Insulation, panels, bulkheads, doors, side scuttles, windows, skylight	Yes	NMA Construction, Sec. 6 NMA Living Quarter, Sec. 6 NMA Fire, Sec. 19-21
Section 32	Fire and gas detection system			
Internal ref.: Sec. 33 Sec. 36 Sec. 37	NORSOK S-001, Ch. 13, 14 NS-EN ISO 13702 with App. B.6 Alternatively: DNVGL-OS-D301, Ch. 2 Sec. 4	811 - Fire detection, fire and lifeboat alarm systems	Yes, except for specific requirements for sound and light alarms (NORSOK S-001 Ch. 17) No, for production plant	NMA Fire, Sec. 22-25 NMA Production, Sec. 21-22
Section 33	Emergency shutdown system			
Internal ref.: Sec. 5 Sec. 7	NORSOK S-001, NS-EN ISO 13702 Alternatively: DNVGL-OS-A101, Ch. 2 Sec. 4	332B - Emergency Shut Down (ESD)	No	
		333B - De-pressurisation, Safety Valves, Corresponding Flare System	No	
		812 - Emergency shutdown system	Yes, for the drilling unit part No, for process plant (well testing facilities shall be	NMA Fire, Sec. 26 NMA Production, Sec. 30-31

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
			considered as a process for a drilling unit)	
Section 34	Process safety system			
	NORSOK P-002 API RP 520/NS-EN ISO 4126 API 521 ISO 10418	331B - Process Shut Down (PSD) 812 - Emergency shutdown system	No Yes, for the drilling unit part No, for process plant (well testing facilities shall be considered as a process for a drilling unit)	NMA Fire, Sec. 26 NMA Production, Sec. 30-31
Section 34a	Control and monitoring system			
	Norwegian Oil and Gas Guideline No. 104 EN 62682 EEMUA 191	79 - Automation systems for machinery	Yes, regarding technical requirements No, regarding ergonomic (human factor) requirements No, for production plant and drilling	NMA Ballast NMA Stability NMA Fire NMA Risk analysis, Sec. 22 DNVGL-OS-D202 Automation, safety and Telecommunication Systems DNVGL-OS-D101 Marine and Machinery Systems and Equipment <i>Note 1:</i> Ref. Sec. 63 (SFI 408) for dynamically positioned facilities

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
				<i>Note II:</i> The structure of this alternative is presupposing that requirements regarding control systems for ballast water, bilge, watertight closures and fire/gas detection systems are evaluated under this alternative.
		811 – Fire detection , fire and lifeboat alarm system	Yes, except for specific requirements for sound and light alarms	NMA Fire, Sec. 22, 23, 25 NMA Production
Section 35	Gas release system			
Internal ref.: Sec. 11	NORSOK S-001, Ch. 12 NORSOK P-002, Ch. 21 NS-EN ISO 13702, Ch. 7, App. B.2 API 521	331B - Process Shut Down (PSD) 812 - Emergency shutdown system	No Yes, for the drilling unit part No, for process plant (well testing facilities shall be considered as a process for a drilling unit)	NMA Fire, Sec. 26 NMA Production,, Sec. 30-31
Section 36	Firewater supply			
Internal ref.: Sec. 37	Activities Regulations, Section 62 NORSOK S-001, Ch. 21 Alternatively:	813 - Fire/wash down, fire pumps, sprinklers 814 - Firefighting systems for external fires 815 - Firefighting systems w/gas 816 - Firefighting systems w/foam 817 - Firefighting systems w/steam 818 - Firefighting systems w/powder 819 - Firefighting systems w/other agents	Yes, for drilling units No, for production units	NMA Fire, Sec. 6-9 NMA Production, Sec. 23-24 NMA Helicopter decks, Sec. 37 DNVGL-OS-D101 Marine and Machinery Systems and Equipment

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	DNVGL-OS-A301, Ch. 2 Sec. 3, 6, 7			(Ch. 2 Sec. 1, 2 & 6)
Section 37	Fixed fire-fighting systems			
	<p>Product Control Act 79/1976, Sec. 3a (in Norwegian only)</p> <p>NORSOK S-001, Ch. 21</p> <p>NS-EN ISO 13702, Ch. 12, App. B.8</p> <p>Alternatively: DNVGL-OS-D301, Ch. 2 Sec. 3, 4, 7, 8</p>	<p>813 - Fire/wash down, fire pumps, sprinklers</p> <p>814 - Firefighting systems for external fires</p> <p>815 - Firefighting systems w/gas</p> <p>816 - Firefighting systems w/foam</p> <p>817 - Firefighting systems w/steam</p> <p>818 - Firefighting systems w/powder</p> <p>819 - Firefighting systems w/other agents</p>	<p>Yes, for drilling units</p> <p>No, for production units</p>	<p>NMA Fire, Sec. 6-15</p> <p>NMA Helicopter decks, Sec. 37-38</p> <p>DNVGL-OS-D101 Marine and Machinery Systems and Equipment (Ch. 2 Sec. 1, 2 & 6)</p>
Section 38	Emergency power and emergency lighting			
	<p>NORSOK R-002, Ch. 5.15</p> <p>NORSOK S-001, Ch. 19</p> <p>NS-EN ISO 13702, Ch. 10, App. C.1</p> <p>IMO 2009 MODU CODE, Ch. 5</p> <p>EN 1838</p>	<p>66 - Other aggregates and generators for main and emergency power productions</p>	Yes	<p>NMA Construction, Sec. 11-12</p> <p>NMA Production</p> <p>DNVGL-OS-D101 Marine and Machinery Systems and Equipment</p> <p><i>Note:</i> For accommodation units, ref. is made to DNVGL-RU-OU-0101, Ch.2 Sec.4</p>
		85 - Electrical systems general part	Yes	<p>NMA Construction</p> <p>(referring to 89/336/EEC and 92/31/EEC)</p> <p>DSB Regulations 1450/2001 relating to maritime electrical systems</p>
Section 39	Ballast system			
	<p>NMA Ballast</p> <p>NORSOK S-001, Ch.24.4</p>	80 - Ballast and bilge systems, gutter pipes outside accommodation	Yes, regarding system design	<p>NMA Ballast</p> <p>NMA Pollution</p>

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	DNVGL-OS-D101, Ch.2 Sec.3		No, regarding environmental requirements (Act. Reg. Sec. 60)	DNVGL-OS-D101 Marine and Machinery Systems and Equipment (Ch. 2 Sec. 1, 2, 3 & 6) For self-elevating Units; DNVGL-OS-D101 Marine and Machinery Systems and Equipment
Section 40	Open drainage systems			
	Activities Regulations, Ch. XI NORSOK S-001, Ch. 9, 24 NORSOK P-002, Ch. 28 NS-EN ISO 13702, Ch. 9, App. B.4	334B - Open Drain for Process Facility 80 - Ballast and bilge systems, gutter pipes outside accommodation	No Yes, regarding system design No, regarding environmental requirements (Act. Reg. Sec. 60)	NMA Ballast NMA Pollution DNVGL-OS-D101 Marine and Machinery Systems and Equipment (Ch. 2 Sec. 1, 2, 3 & 6) For self-elevating Units: DNVGL-OS-D101 Marine and Machinery Systems and Equipment
CHAPTER VI	EMERGENCY PREPAREDNESS			
Section 41	Equipment for rescue of personnel			
Internal ref.: Sec. 5 lit. c Sec. 69	Activities Regulations, Section 77	501 - Lifeboats with equipment	Yes	NMA Life-saving appliances
Section 41a	Evacuation and rescue means for manned underwater operations			
Internal ref.: Sec. 9	Activities Regulations, Section 77, literas c and d Framework Regulations, Section 19 IMCA D 051 Hyperbaric Evacuation Systems (HES) Interface	483 - Diving equipment	No	

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	Recommendations NORSOK U-100N			
Section 42	Materials for action against acute pollution			
	Framework Regulations, Chapter II Management Regulations, Section 17	489 - Environmental protection equipment	No	
Section 43	Emergency preparedness vessels			
Section 44	Means of evacuation			
	Activities Regulations, Section 73 Activities Regulations, Section 77, lit. d DNVGL-OS-C101 DNVGL-ST-E406 NORSOK N-001 NORSOK S-001, Ch. 22 ISO 19900	501 - Lifeboats with equipment 502 - Life rafts with equipment	Yes Yes	NMA Life-saving appliances NMA Life-saving appliances
Section 45	Survival suits and life jackets, etc.			
	Management Regulations, Section 17	503 - Lifesaving, safety and emergency equipment	Yes	NMA Life-saving appliances
Section 46	Manual fire-fighting and firefighter's equipment			
	NORSOK S-001, Ch. 21.4.7, 23.4.6 NS-EN ISO 13702, App. B.8.12	505 - Loose firefighting apparatuses and equipment, firemen's suit	Yes	NMA Fire, Sec. 12-15
CHAPTER VII	ELECTRICAL INSTALLATIONS			

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 47	Electrical installations			
Internal ref.: Sec. 5 Sec. 10 Sec. 38 Sec. 77 Sec. 78	<p>Regulations relating to electrical power installations 1626/2005 (in Norwegian only)</p> <p>Radiation Protection Regulations 1659/2016 (in Norwegian only) Section 26</p> <p>IEC 61892 IEC 61892-2 (2012) Corr. 1 IEC 60092</p> <p>Alternatively: DNVGL-OS-D201</p>	65 - Motor aggregates for main electric power production	Yes	<p>DNVGL-OS-D101 Marine and Machinery Systems and Equipment, Ch. 2 Sec. 5</p> <p>DNVGL-OS-D201 Electrical Systems and Equipment</p>
		85 - Electrical systems general part	Yes	<p>NMA Construction</p> <p>(referring to 89/336/EEC and 92/31/EEC)</p> <p>DSB Regulations 1450/2001 relating to maritime electrical systems</p>
		86 - Electrical power supply	Yes	DSB Regulations 1450/2001 relating to maritime electrical systems
		87 - Electrical distribution common systems	Yes	<p>DSB Regulations 1450/2001 relating to maritime electrical systems</p> <p><i>Note:</i> Refer to Sec. 63 (SFI 408) for dynamically positioned facilities</p>
		88 - Electrical cable installation	Yes	<p>DSB Regulations 1450/2001 relating to maritime electrical systems</p> <p><i>Note:</i> Refer to Sec. 63 (SFI 408) for dynamically positioned facilities</p>
		89 - Electrical consumers (lighting etc.)	Yes	<p>NMA Construction Sec. 6a, 12, 19</p> <p>DSB Regulations 1450/2001 relating to maritime electrical systems</p>
CHAPTER VIII	DRILLING AND WELL SYSTEMS			

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 48	Well barriers			
Internal ref.: Sec. 8 Sec. 11	Management Regulations, Section 5 NORSOK D-010, Ch. 4, 5, 9, 15	33A - Well control equipment and systems	No	
		33C - Well control, equipment and systems	No	
Section 49	Well control equipment			
	NORSOK D-001, Ch. 5, 6, Annex A, B, C NORSOK D-002 NORSOK D-010, Ch. 5.7.2 Alternatively: DNVGL-OS-E101, Ch. 2 Sec. 5 §3	33A - Well control equipment and systems	No	
		33C - Well control, equipment and systems	No	
Section 50	Compensator and disconnection systems			
Internal ref.: Sec. 5 lit. c Sec. 11	Management Regulations, Section 17 NORSOK D-001, Ch. 5, 6 alternatively: DNVGL-OS-E101, Ch. 2 Sec. 5 §4	33A - Well control equipment and systems	No	
		33C - Well control, Equipment and Systems	No	
		38A - Miscellaneous equipment, systems and services	No	
		39A - Marine riser, Riser Compensator and Drillstring	No	
Section 51	Drilling fluid system			
Internal ref.: Sec. 8 Sec. 15 Sec. 17	Management Regulations, Section 5 NORSOK D-001, Ch. 5, 6 Alternatively: DNVGL-OS-E101, Ch. 2 Sec. 5 §7	32A - Bulk and mud systems	No	
		32C - Bulk- and Drill Fluid Systems	No	
		74 - Exhaust systems and air intakes	Yes	NMA Fire, Sec. 24-25 DNVGL-OS-A101 Safety principles and Arrangement* Ch. 2 Sec. 2 §3.2, Sec. 3 DNVGL-OS-D101 Marine and Machinery Systems and Equipment*, Ch.2 Sec. 4 §11

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
				DNVGL-OS-E101 Drilling facilities, Ch. 2 Sec. 1 §4.3 * *only relevant for ventilation in hazardous areas
Section 52	Cementing unit			
Internal ref.: Sec. 15	Pollution Control Act (in Norwegian only) NORSOK D-001, Ch. 5, 6, Annex A, B, C Alternatively: DNVGL-OS-E101,, Ch. 2 Sec. 5 §7.4	32A - Bulk and mud systems	No	
Section 53	Equipment for completion and well flow			
Internal ref.: Sec. 12	Resource Management Regulations NORSOK D-007 NORSOK D-010, Ch. 6-8, 14-15 Alternatively: DNVGL-OS-E101, Ch. 2 Sec. 5 §9	31A - Drill floor equipment and systems	No	
		35A - Drill string and downhole equipment and systems	No	
		37A - Service equipment and systems	No	
		38A - Miscellaneous equipment, systems and services	No	
		38C - Miscellaneous, systems and service	No	
Section 54	Christmas tree and wellhead			
Internal ref.: Sec. 8	Activities Regulations, Section 47	36C – Material handling equipment and systems	No	

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Sec. 33	Management Regulations, Section 5 NORSOK D-010, Ch. 7.7.2, 8, 15 NORSOK U-001 ISO 10423 ISO 13628	376C - Wellhead and tubular equipment	No	
		38C – Miscellaneous, systems and service	No	
CHAPTER IX	PRODUCTION PLANTS			
Section 55	Production plants			
Internal ref.: Sec. 5 Sec. 10 Sec. 15	Activities Regulations, Section 60 Activities Regulations, Section 61a, 61b Framework Regulations, Chapter II Framework Regulations, Section 45 NORSOK L-001 NORSOK L-002 NORSOK P-002 NORSOK U-001 ISO 13628	31B - Auxiliary Equipment, Dedicated Process Equipment	No	
		32B - Chemicals Equipment	No	
		301B - Inlet from risers, manifolds, swivel etc. (field specific conditions)	No	
		302B - Separation Equipment (including water treatment)	No	
		303B - Compression Equipment	No	
		304B - Water Injection equipment	No	
		46 - VOC/blanket gas system	Yes	NMA Production
CHAPTER X	LOAD-BEARING STRUCTURES AND PIPELINE SYSTEMS			
Section 56	Load-bearing structures and maritime systems			
Internal ref.:	NORSOK N-001	2 - Hull and structure	Yes	NMA Construction, Sec. 6, Sec. 7 and

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
CHAPTER XI	LIVING QUARTERS			
Section 58	Living quarters			
Internal ref.: Sec. 20 Sec. 61	Activities Regulations, Section 14 Activities Regulations, Section 19 NORSOK C-001 NORSOK C-002 NORSOK S-001 NORSOK S-002 alternatively: NMA Living Quarter, Sections 6, 7, 8, 12, 13, 14, 15, 17 and 18	11 - Other; Arrangement	Yes ²	NMA Construction, Sec. 6, 6a, 7, 8, 12, 13, 14, 15, 17, 18 NMA Living Quarter, Sec. 6-15, 17-18 NMA Fire Sec. 19
		52 - Internal deck covering, ladders, steps, railings etc.	Yes, regarding deck covering and railings No, regarding ladders and thresholds	NMA Construction NMA Living Quarter
		54 - Furniture, inventory and entertainment equipment	Yes No, regarding bunk beds	NMA Living Quarter
		55 - Galley & pantry equipment, arrangement for provisions, ironing/drying equipment	Yes, regarding shape/construction No, regarding working environment, lighting, ventilation etc. (NORSOK S-002)	NMA Living Quarter
Section 59	Health department			
Internal ref.:	Management Regulations, Section 17	504 - Medical and dental equipment,	Yes, regarding	NMA Living Quarter

² Maritime regulations can be used as an alternative norm to the Facilities Regulations.

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Sec. 38	NORSOK C-001, Ch. 7.21 Alternatively: NMA Living Quarter, Section 16	medicines and first aid equipment	health department No, regarding emergency sickbay	
Section 60	Emergency sickbay			
	Management Regulations, Section 17 NORSOK C-001, Ch. 7.21	504 - Medical and dental equipment, medicines and first aid equipment	Yes, regarding health department No, regarding emergency sickbay	NMA Living Quarter
Section 61	Supply of food and drinking water			
	Activities Regulations, Section 13 Drinking water Regulations 1868/2016 (in Norwegian only) NORSOK P-002, Sec. 27 NIPH Safe, Sufficient & Good Potable Water Offshore	76 - Distilled and make-up water systems	Yes	NMA Potable water
CHAPTER XII	MARITIME FACILITIES			
Section 62	Stability			
Internal ref.: Sec. 39	NMA Stability, Sections 8-51 NORSOK N-001, Ch. 7.10 NMA's circular RSV 17-2016, point 6	1 - Unit general	Yes	NMA Stability, Sec. 8-51 For self-elevating units; DNVGL-OS-C301 Stability and Watertight Integrity NMA Production, Sec. 17, §2-3

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 63	Anchoring, mooring and positioning			
Internal ref.: Sec. 11 Sec. 50 Sec. 56	Activities Regulations, Section 90	26 - Turret	Yes	NMA Production, Sec. 15
	NMA Anchoring, Sections 6-17 NORSOK N-001, Ch. 7.11, 7.12	43 - Anchoring, mooring and towing equipment	Yes	NMA Anchoring NMA Production Note: not applicable for Jack-ups
	IMO MSC/Circular 645	408 - Dynamic positioning plant	Yes	NMA Anchoring (MSC/Circular 645)
Section 64	Turret			
	NMA Production, Section 15 §1-4 NORSOK S-001, Ch. 6.4.9	26 - Turret	Yes	NMA Production, Sec. 15
CHAPTER XIII	DIVING FACILITIES			
Section 65	Installations and equipment for manned underwater operations			
CHAPTER XIV	ADDITIONAL PROVISIONS			
Section 66	Loading and offloading systems			
	Management Regulations, Section 9 For FPSOs and FSUs: NMA Production, Section 35 DNVGL-OS-E201, Ch. 2 Sec. 12 NORSOK N-001	36B - Offloading equipment	No	
Section 67	Waste			
	Activities Regulations, Section 72	11 - Other; Arrangement	Yes	NMA Protective, environmental, Sec.

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
				12
Section 68	Exhaust ducts			
Internal ref.: Sec. 51	NORSOK S-001	74 - Exhaust systems and air intakes	Yes	NMA Fire , Sec. 24-25 DNVGL-OS-A101 Safety principles and Arrangement* Ch. 2 Sec. 2 §3.2, Sec. 3 DNVGL-OS-D101 Marine and Machinery Systems and Equipment*, Ch.2 Sec. 4 §11 DNVGL-OS-E101 Drilling facilities, Ch. 2 Sec. 1 §4.3 * *only relevant for ventilation in hazardous areas
Section 69	Lifting appliances and lifting gear			
Internal ref.: Sec. 13 Sec. 80	NORSOK D-001 , Ch. 5, 6 NORSOK R-002 ³ Norwegian Oil and Gas Guideline No. 081 Remote Pipe Handling Operations NSA Guidelines for implementation of EN 13852-1 on existing offshore cranes on mobile offshore units (built before 2007)	31A - Drill floor equipment and systems ³	No	
		34A - Pipe handling equipment and systems ³	No	
		36A - Material handling equipment and systems ³	No	
		31C - Work floor, Equipment and Systems ³	No	
		36C - Material Handling, Equipment and Systems ³	No	
		45 - Lifting and transport equipment for machinery components	Yes	NMA Protective, environmental , Sec. 9
		501 – Lifeboats with equipment (launching and recovery appliances for rescue and evacuation means)	Yes	NMA Life-saving appliances
		561 - Personnel lifts, escalators ³	No, for lifting	<i>Equipment for lifting personnel other</i>

³ NORSOK R-002 applies for lifting appliances and lifting gear in the drilling area; however the EU machine directive references in NORSOK R-002 is not applicable for mobile drilling units.

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
			equipment/personnel on drill floor Yes, for other equipment/areas	<i>than on drill floor:</i> NMA Protective, environmental, Sec. 9 <i>Lifts:</i> NMA Construction, Sec. 23 Alternatively: DNV's Rules for certification of lifts on-board ships, MOUs and offshore installations
		563 - Deck cranes	Yes	NMA Cranes and lifting operations DNV 2.22 Rules for certification of Lifting appliances NORSOK S-002 Working Environment (for working environment in crane cabin) See also NPD/PSA's letter of 22.12.2003
Section 70	Helicopter deck			
	CAA Regulations relating to flight over the continental shelf 1181/2007 (in Norwegian only) NORSOK C-004, (except Ch. 14) NORSOK S-001, Ch. 21.4.9	566 - Helicopter Platform w/equipment	Yes	NMA Helicopter decks
Section 71	Marking of facilities			
	Framework Regulations, Section 1 Norwegian Coastal Administration - Provisions on the marking of	41 - Navigation and searching equipment 427 - Light and signal equipment (lanterns, whistles, etc.)	Yes Yes	NMA Construction, Sec. 13 NMA Construction, Sec. 13 NMA Helicopter decks, Sec. 27

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
	permanently located offshore units in the petroleum industry			
Section 72	Marking of equipment and cargo			
Section 73	Lifts			
Internal ref.: Sec. 13	NORSOK R-002, Annex E	561 - Personnel lifts, escalators	No, for lifting equipment on drill floor Yes, for other equipment	<i>Equipment for lifting personnel other than on drill floor:</i> NMA Protective, environmental <i>Lifts:</i> NMA Construction, Sec. 23 alternatively: DNV's Rules for certification of lifts onboard ships, MOUs and offshore installations
CHAPTER XV	IMPLEMENTATION OF EEA REGULATIONS			
Section 74	(Repealed by regulations 26 April 2019)			
Section 75	Personal protective equipment			
Section 76	Aerosol containers			
Section 77	EMC			
	Regulations relating to electrical equipment 1598/2017 (in Norwegian only) (the EE Regulations) Regulations relating to electromagnetic compatibility (EMC) for electronic communication 378/2016 (in Norwegian only) Council Directive 89/336/EEC Council Directive 92/31/EEC	85 - Electrical systems general part	Yes	NMA Construction, Sec. 6a (referring to 89/336/EEC and 92/31/EEC) DSB Regulations 1450/2001 relating to maritime electrical systems

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
Section 78	(Repealed by regulations 26 April 2019)			
Section 79	(Repealed by regulations 26 April 2019)			
Section 80	Products not covered by the Facilities Regulations			
Internal ref.: Sec. 1	Regulations related to machinery 544/2009 (in Norwegian only) Marine Equipment Directive 96/98/EC18	488 - Jacking system, spud tank jetting system for Jack-ups	Yes	NMA Construction DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		564 - Walkway between units	Yes	DNVGL-RU-OU-101 Rules for the Classification of Offshore Drilling and Support Units, Ch.2 Sec.4 <i>Note:</i> Only applicable for accommodation units
		60 - Diesel engines for propulsion	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		62 - Other types of propulsion machinery	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment DNVGL-OS-D201 Electrical Systems and Equipment
		63 - Transmission and foils (propellers, reduction gears etc.)	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment <i>Note:</i> Only applicable to units with dynamic positioning and thruster assisted anchoring
		64 - Boilers, steam and gas generators	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment

Facilities Regulations	Referred regulations, standards, and guidelines in the Facilities Regulations	Relevant SFI system groups	FR Sec. 3 applicable?	Alternatives to the Facilities Regulations
		82 - Air and sounding systems from tank to deck	Yes	NMA Ballast DNVGL-OS-D101 Marine and Machinery Systems and Equipment
		83 - Special common hydraulic systems	Yes	DNVGL-OS-D101 Marine and Machinery Systems and Equipment
CHAPTER XVI	CONCLUDING PROVISIONS			
Section 81	Supervision, decisions, enforcement, etc.			
Section 82	Entry into force			

Enclosure E - Applicability of the Framework Regulations section 3; MOU variations

Enclosure D covers and explains use of Framework Regulations (FR) Section 3 for mobile offshore units registered in a national ships' register and following a maritime operational model.

Whether selecting to apply FR Section 3 or not, all floating facilities on the NCS shall be in accordance with several requirements set forth by NMA. In the following some differences of applicability of maritime regulations and Framework Regulations Section 3 for different MOU types are highlighted. It should be emphasised that the following table describes applicability in an overall and broader view, hence what is the primary regulations to follow.

Legend to the following table

NA	Not applicable
FacR	Follow the Facilities Regulation directly
Maritime	Follow maritime regime according to Framework Regulations Section 3

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
Section 1 Scope	Information	Information	Information	Information
Section 2 Responsibilities	NA	NA	NA	NA
Section 3 Definitions	Information	Information	Information	Information
Section 4 Choice of development concept	NA	NA	NA	NA
Section 5 Design of facilities	Maritime	Maritime	FacR	Maritime
Section 6 Design of simpler facilities without accommodation	NA	NA	NA	NA
Section 7 Main safety functions	Maritime	Maritime	FacR	Maritime
Section 8 Safety functions	Maritime	Maritime	FacR	Maritime
Section 9 Qualification and use of new technology and new methods	Maritime	Maritime	Maritime	Maritime
Section 10 Installations, systems and equipment	Maritime	Maritime	Maritime ¹	Maritime
Section 10a Ignition source control	Maritime	Maritime	FacR	Maritime
Section 11 Loads/actions, load/action effects and resistance	Maritime	Maritime	FacR	Maritime
Section 12 Materials	Maritime	Maritime	Maritime	Maritime
Section 13 Materials handling and transport	Maritime	Maritime	FacR	Maritime

¹ FacR shall be used for the production plant in production units and *Maritime* can be used for the vessel specific.

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
routes, access and evacuation routes				
Section 14 Ventilation and indoor climate	Maritime ²	Maritime ²	FacR	Maritime ²
Section 15 Chemicals and chemical exposure	FacR	FacR	FacR	FacR
Section 16 Flammable and explosive goods	Repealed by Regulations 23 December 2013			
Section 17 Instrumentation for monitoring and recording	FacR	FacR	FacR	FacR
Section 18 Systems for internal and external communication	Maritime ³	Maritime ³	Maritime ³	Maritime ³
Section 19 Communications equipment	Maritime ³	Maritime ³	Maritime ³	Maritime ³
Section 20 Ergonomic design	FacR	FacR	FacR	FacR
Section 21 Human-machine interface and information presentation	FacR	FacR	FacR	FacR
Section 22 Outdoor work areas	FacR	FacR	FacR	FacR
Section 23 Noise and acoustics	FacR	FacR	FacR	FacR
Section 24 Vibrations	FacR	FacR	FacR	FacR
Section 25 Lighting	FacR	FacR	FacR	FacR

² *Maritime* can be used for physical systems, FacR shall be used for indoor climate.

³ Universal audio and visual alarms must follow FacR. Apart from alarm signals, *Maritime* can be used for design of internal/ external communication.

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
Section 26 Radiation	FacR	FacR	FacR	FacR
Section 27 Equipment for personnel transport	Maritime ⁴	Maritime	Maritime	Maritime
Section 28 Safety signs	Maritime	Maritime	Maritime	Maritime
Section 29 Passive fire protection	Maritime	Maritime	FacR	Maritime
Section 30 Fire divisions	Maritime	Maritime	FacR	Maritime
Section 31 Fire divisions in living quarters	Maritime	Maritime	FacR	Maritime
Section 32 Fire and gas detection system	Maritime	Maritime	FacR	Maritime
Section 33 Emergency shutdown system	Maritime	Maritime	FacR	Maritime
Section 34 Process safety system	FacR	NA	FacR	FacR ⁵
Section 34a Control and monitoring system	Maritime	Maritime	FacR	Maritime
Section 35 Gas release system	FacR	NA	FacR	NA
Section 36 Firewater supply	Maritime	Maritime	FacR	Maritime
Section 37 Fixed fire-fighting systems	Maritime	Maritime	FacR	Maritime
Section 38 Emergency power and emergency lighting	Maritime	Maritime	Maritime	Maritime
Section 39 Ballast system	Maritime	Maritime	Maritime	Maritime

⁴ FacR shall be used for lifting equipment on the drill floor

⁵ For storage units an evaluation needs to be done (of extent of PSD) and if necessary follow FacR.

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
Section 40 Open drainage systems	Maritime ⁶	Maritime	FacR	Maritime ⁶
Section 41 Equipment for rescue of personnel	Maritime	Maritime	Maritime	Maritime
Section 41a Evacuation and rescue means for manned underwater operations	FacR	FacR	FacR	FacR
Section 42 Materials for action against acute pollution	FacR	FacR	FacR	FacR
Section 43 Emergency preparedness vessels	FacR	FacR	FacR	FacR
Section 44 Means of evacuation	Maritime	Maritime	Maritime	Maritime
Section 45 Survival suits and life jackets, etc.	Maritime	Maritime	Maritime	Maritime
Section 46 Manual fire-fighting and firefighters' equipment	Maritime	Maritime	FacR	Maritime
Section 47 Electrical installations	Maritime	Maritime	FacR	Maritime
Section 48 Well barriers	FacR	NA	NA	NA
Section 49 Well control equipment	FacR ⁷	NA	NA	NA
Section 50 Compensator and disconnection systems	FacR ⁷	NA	NA	NA
Section 51 Drilling fluid system	FacR ⁷	NA	NA	NA
Section 52 Cementing	FacR ⁷	NA	NA	NA

⁶ Environmental performance needs to be according to FacR.

⁷ FacR shall be used, but FacR has direct reference to DNV-OS-E101.

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
unit				
Section 53 Equipment for completion and controlled well flow	FacR	NA	NA	NA
Section 54 Christmas tree and wellhead	FacR	NA	NA	NA
Section 55 Production plants	FacR	NA	FacR	FacR
Section 56 Load-bearing structures and maritime systems	Maritime	Maritime	Maritime	Maritime
Section 57 Pipeline systems	NA	NA	NA	NA
Section 58 Living quarters	Maritime ⁸	Maritime ⁸	Maritime ⁸	Maritime ⁸
Section 59 Health department	Maritime ⁸	Maritime ⁸	Maritime ⁸	Maritime ⁸
Section 60 Emergency sickbay	FacR	FacR	FacR	FacR
Section 61 Supply of food and drinking water	Maritime ⁹	Maritime ⁹	Maritime ⁹	Maritime ⁹
Section 62 Stability	Maritime	Maritime	Maritime	Maritime
Section 63 Anchoring, mooring and positioning	Maritime	Maritime	Maritime	Maritime
Section 64 Turret	NA	NA	Maritime ¹⁰	Maritime ¹⁰
Section 65 Installations and equipment for manned underwater operations	NA	NA	NA	NA

⁸ *Maritime* can only be used for layout and design. FacR shall be used for working environment.

⁹ *Maritime* can be used for technical layout. FacR (Norwegian Institute of Public Health) should be used for water quality and treatment systems.

¹⁰ *Maritime* can be used for structure and equipment, FacR shall be used for process piping.

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
Section 66 Loading and offloading systems	NA	NA	Maritime ¹¹	Maritime ¹¹
Section 67 Waste	Maritime	Maritime	Maritime	Maritime
Section 68 Exhaust ducts	Maritime	Maritime	Maritime	Maritime
Section 69 Lifting appliances and lifting gear	Maritime ¹²	Maritime	Maritime	Maritime
Section 70 Helicopter deck	Maritime	Maritime	Maritime	Maritime
Section 71 Marking of facilities	Maritime	Maritime	FacR	Maritime
Section 72 Marking of equipment and cargo	NA	NA	NA	NA
Section 73 Lifts	Maritime ¹²	Maritime	Maritime	Maritime
Section 74 Simple pressure vessels	Repealed by Regulations 26 April 2019			
Section 75 Personal protective equipment	NA	NA	FacR	FacR
Section 76 Aerosol containers	NA	NA	FacR	FacR
Section 77 EMC	Maritime	NA	FacR	FacR
Section 78 ATEX	Repealed by Regulations 26 April 2019			
Section 79 Pressure equipment not covered by the Facilities Regulations	Repealed by Regulations 26 April 2019			
Section 80 Products not covered by the Facilities Regulations	Maritime	Maritime	FacR	FacR

¹¹ The design of the stern on FPSOs and FSUs should conform to the NORSOK N-001 standard.

¹² FacR shall be used for lifting equipment on the drill floor

Facilities Regulations	Drilling Unit and Well Intervention Unit	Accommodation Unit	Production (and storage) Unit	Storage Unit
Section 81 Supervision, decisions, enforcement, etc.	NA	NA	NA	NA
Section 82 Entry into force	NA	NA	NA	NA

