

NORWEGIAN OIL AND GAS HANDBOOK

FOR

APPLICATIONS FOR CONSENT FOR WELL OPERATIONS FROM A MOBILE FACILITY

Published–September 2017

Foreword

This handbook has been developed with industry participation by the operators and in collaboration with the Norwegian Shipowners Association.

Norwegian Oil and Gas Vassbotnen 1, NO-4313 Sandnes P O Box 8065 NO-4068 Stavanger Telephone: +47 51 84 65 00 Website: <u>www.norskoljeoggass.no</u> E-mail: <u>firmapost@norog.no</u>

CONTENTS

Foreword		
1.	INTRODUCTION	4
2.	DEFINITIONS	5
3.	REGULATIONS	5
4.	RESPONSIBILITIES	6
4.1	Operator	6
4.2	Rig owner	7
5.	WORK PROCESS FOR THE CONSENT APPLICATION	8
6.	FACILITY-SPECIFIC ASSESSMENTS	
6.1	Technical condition	9
6.2	Barrier functions	9
6.3	Management system	9
6.4	Organisation	9
6.5	Exemptions	10
	Operational limitations	
6.7.	Third-party equipment (under contract to the rig owner)	10
	OPERATOR-SPECIFIC REQUIREMENTS	
APP	PENDIX A. OPERATOR CHECKLIST	11

1. INTRODUCTION

The purpose of this handbook is to provide an understanding of how to handle facilityspecific information when preparing an application for consent for a well operation.

Operators must apply to the Petroleum Safety Authority Norway (PSA) for consent before well operations can begin from a mobile facility.

The rig owner is responsible for ensuring that the facility is operated in accordance with the regulations, and that its organisation and management system as well as the facility's technical condition comply with regulatory requirements. The rig owner is responsible for seeking an acknowledgement of compliance (AoC) and for ensuring that the AoC is maintained and complied with. The AoC shall be included in the documentation basis for the consent application.

This handbook will serve as an aid to the operator in the intake process for a mobile facility. It will also help the rig owner to establish a standard for the information required by the operator in order to apply for consent.

The handbook describes:

- the responsibilities of the operator and rig owner in connection with the consent process for well operations
- how nonconformities and exemptions should be assessed and handled in the consent process
- relevant documentation for the operator's verification of the facility

2. DEFINITIONS

- "Nonconformity" refers in this context to a deviation between the chosen solutions and the relevant requirements.
- "Well operation" refers to an activity in a well, with or without a riser. This could, for example, be drilling, well intervention or well maintenance, and applies to both subsea and platform wells.
- "Operator" refers in this context to the organisational unit responsible for the planned petroleum activity.
- "Rig owner" refers to the owner of the rig or the company responsible for its day-to-day operation.
- "Exemption" designates the regulator's decision to accept a nonconformity from the regulatory requirements.
- "Third party" refers in this context to the service company or equipment supplier, and/or to services provided to the operator and/or the rig owner.

3. REGULATIONS

The following sections of the framework and management regulations are relevant for this handbook.

Section 25 of the framework regulations specifies that: "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 acknowledgement of compliance will be issued following an application from the party responsible for operating such a facility, without being an operator.

"The application shall include information regarding the facility's technical condition and the applicant's organisation and relevant management system, and a statement regarding the application from the employee organisations or their elected representatives. The acknowledgement of compliance shall be included in the documentation basis associated with the use of mobile facilities."

Section 70 of the framework regulations specifies that: "The Ministry of Labour and Social Affairs, the Ministry of Climate and Environment, the Ministry of Health and Care Services, the Norwegian Directorate of Health, the supervisory authorities as mentioned in section 67* or other designated authority can grant exemptions from the provisions stipulated in or in pursuance of these regulations in their respective areas of authority when special circumstances exist, with the specifications that follow from [these regulations]."

*The PSA is the supervisory authority for this purpose.

Section 22 of the management regulations specifies that: "The responsible party shall register and follow up nonconformities in relation to requirements in the health, safety and environment legislation, including nonconformities in relation to internal requirements, which are of significance for compliance with requirements in the health, safety and environment legislation."

Section 25 of the management regulations specifies in part that: "The operator shall, well before the scheduled start of activities, submit an application for consent to the Petroleum Safety Authority Norway:

- before facilities are put into service (applies to the use of a mobile facility for well operations)
- prior to carrying out exploration drilling
- prior to carrying out surveys where the drilling depth is more than 200 metres

The contents of the consent application should comply with section 26 of the management regulations.

4. **RESPONSIBILITIES**

4.1 Operator

The operator has overall responsibility for the activity, and for ensuring that it is executed in compliance with the regulations. The operator has a responsibility for ensuring that the facility is capable of complying with location- and well-specific conditions. The operator must describe these conditions in the consent application.

The operator is responsible for submitting the consent application for the activity, and for ensuring that its documentation basis complies with section 26 of the management regulations.

The operator is responsible for ensuring that all nonconformities and exemptions are identified and assessed, and that the risk of the planned activity is acceptable. Nonconformities and exemptions should be assessed both individually and collectively.

The operator is responsible for ensuring that location-, well- and facility-specific hazards are assessed in terms of major accidents, and that the necessary barriers are in place for executing the activity in a prudent manner and with an acceptable level of risk. To do this, the operator must verify information both on the facility and on the rig owner's management system and organisation. Verification should show that the facility can be operated prudently and in accordance with the regulations for the activities covered by the consent application.

The operator is responsible for ensuring that all bridging documents have been produced and are in place before the well operation begins. Such documents will normally cover conditions and procedures that interface with other facilities or established procedures. The operator is responsible for ensuring that the interface between its own and the rig owner's management systems is coordinated through the contract and the bridging documents.

The operator may be responsible for some third-party equipment used on the rig. The contract is then between the operator and the equipment supplier and the operator is responsible for following up that the equipment is used in accordance with the regulations. The operator must

ensure that the supplier has competent personnel and that the equipment is maintained and tested in accordance with the supplier's procedures. The operator is responsible for maintaining an overview of nonconformities and exemptions for this equipment, and for assessing whether nonconformities and exemptions are acceptable in relation to the planned activity. Possible exemptions must be included in the consent application.

The operator is responsible for assessing whether exemptions related to third-party equipment under contract to the rig owner are acceptable for the planned activities.

The operator must see to it that the rig owner has fulfilled the requirements in the AoC, which include maintaining a continuous overview of changes to regulatory requirements and whether these might give rise to possible new nonconformities. Should new nonconformities be identified which require the PSA to consider further exemptions, the rig owner will be responsible for updating the AoC and possible related exemptions in a dialogue with the PSA. The operator should include references to possible updating of the AoC and associated exemptions in the consent application if the rig owner is in the process of updating the AoC because new exemptions to regulatory requirements have been identified.

The operator is not responsible for AoC applications for the facility. If the facility planned to be used for the activity is in an AoC process, it may be appropriate for the operator to get involved at this stage in order to simplify the process of obtaining the documentation basis for the consent application in line with this handbook. Where applicable, this should be agreed with the rig owner.

4.2 Rig owner

The rig owner is responsible for ensuring that the facility is operated in compliance with the regulations.

The rig owner is responsible for seeking an AoC for the facility and for maintaining and complying with this after it has been issued by the PSA. It is also responsible for assessing changes affecting use of the facility, including regulatory changes, and for handling possible nonconformities that arise in accordance with its own management system. The rig owner is responsible for seeking exemptions from the regulations and for maintaining an overview of all permanent and temporary exemptions. This overview, with any mitigation measures, should be sent to the operator.

The rig owner may be responsible for some third-party equipment used on the rig. The contract is then between the rig owner and the equipment supplier, and the rig owner is responsible for following up that the equipment is used in accordance with the regulations. The owner must ensure that the supplier has competent personnel and that the equipment is maintained and tested in accordance with the supplier's procedures. The rig owner is responsible for maintaining an overview of nonconformities and exemptions for this equipment, and for informing the operator of these. The operator will include possible exemptions in the consent application.

The rig owner is responsible for providing the documentation on the facility, organisation and management system required for the operator to apply for consent for the activity.

The rig owner will normally be regarded as the principal undertaking pursuant to section 33 of the framework regulations and section 2.2 of Norway's Working Environment Act.

5. WORK PROCESS FOR THE CONSENT APPLICATION

A consent application consists of two parts:

- one part which covers location- and well-specific conditions
- one part which covers facility-specific conditions, including the rig owner's organisation and management system

The facility-specific part of the application should refer to the AoC for the facility. If the PSA has not issued an AoC for the facility, the operator can refer to the documentation that forms the basis for the AoC application submitted to the PSA. The operator cannot seek consent for an activity using a facility which lacks an AoC or which is not in an AoC process.

The PSA has copies of all approved AoCs. It is not necessary to attach the AoC or individual chapters from the AoC to the consent application submitted to the PSA. Any need to mention information concerning the AoC in the application can be met by referencing it.

The operator must assess:

- location- and well-specific conditions, and present analyses which show that the activity can be conducted in a prudent manner and in compliance with the regulations
- facility-specific conditions, particularly the facility's limitations, and present analyses which show that it can be used in a prudent manner for the activities planned
- all exemptions on the facility, individually and collectively, and ensure that the activities can be executed prudently with the identified exemptions
- the need to apply for further exemptions*

* Regulatory changes from the time when the AoC was issued until the consent application is submitted could create the basis for further nonconformities that will require exemptions from the regulator. This calls for close collaboration with the rig owner and follow-up of the rig owner's system for managing exemptions. Any required application for exemption(s) should be submitted to the PSA as soon as possible, and at the latest in connection with the consent application.

The operator must include an overview of all AoC exemptions in the consent application, and describe how these have been risk-assessed in relation to the planned well operation.

Two or more operators may cooperate in a consortium to charter a rig. In such cases, it could be appropriate for operators to use the information available from the consortium for assessing the rig as well as for preparing the consent application.

6. FACILITY-SPECIFIC ASSESSMENTS

The operator should conduct verifications to ensure that the activity using the facility can be executed prudently and in compliance with the regulations. These verifications will form part of the intake process for the facility. They assume that the facility has an AoC or is in an AoC application process.

The scope of the verification activities pursued by the operator, and the information it requests, will vary in line with its own experience of the facility and that of others. Earlier verifications and audits can form a basis for the operator's assessment. If new technology or types of equipment are expected to be used, specific verifications and assessments may be needed in connection with these. That applies particularly to new technology and equipment that could affect HSE, major accidents and work processes.

6.1 Technical condition

Verify that maintenance and inspection have been performed with critical systems in accordance with established programmes, such as the well control system, inspection of load-bearing structures and checks of lifting equipment.

6.2 Barrier functions

Verify the way the rig owner verifies compliance with the barrier strategy.

Verify that maintenance, testing and inspection of systems and equipment included in barriers to major accidents have been performed in accordance with established programmes, such as the BOP and stability systems, ignition control, and the fire and gas system.

6.3 Management system

Verify the attention paid by the rig owner to HSE and how its management follows up HSE.

Verify compliance with the management system and that planned internal audits and checks are performed as planned.

Verify that external audits, including those by the government, have been followed up and that measures for implementing improvement points are in place or planned.

Verify that drills and training, particularly in relation to well control and personnel mustering, have been carried out as planned.

Verify that incidents and accidents (including near misses) have been investigated and that measures identified have been followed up.

Verify health conditions on the facility.

Verify that control of work systems, such as work permits and safe job analyses, function satisfactorily.

6.4 Organisation

Verify that sufficient personnel are available for the activities planned.

Verify the expertise of the personnel who will be involved in critical activities. It may be appropriate here to specify which positions are important for the operator, such as tool pusher, driller, assistant driller and rig manager.

6.5 Exemptions

Overviews of all exemptions and of possible compensatory measures. The operator must include an overview of exemptions in the consent application. It must undertake a risk assessment of exemptions in relation to the planned well operation.

The operator and the rig owner should assess new nonconformities that could provide the basis for exemptions in connection with the consent application. This is done to ensure that possible changes to the regulations or the actual conditions are dealt with in the period after the AoC has been issued.

6.6 Operational limitations

Operational limitations for the facility are important for the operator's assessment of locationspecific conditions. That applies, for example, to 100-year current and wind speeds and wave heights, to assessments made (where the far north is concerned) of the consequences of sea ice, icebergs and low temperatures, and to the planned air gap between the wave crest and the base of the facility's topside. An assessment of such operational limitations should be made in connection with the procurement process for the facility. An overview of this assessment should be presented in the consent application.

Operational limitations for well control equipment in use on the facility should also be assessed in the procurement process. This information is important for assessing well-specific conditions, including maximum pressure and temperature, the ability of the shear ram to cut the drilling string and other components, and the composition of the oil and gas and its content of CO_2 , H_2S and so forth. An overview of this assessment should be presented in the consent application.

6.7. Third-party equipment (under contract to the rig owner)

Verify the rig owner's follow-up of the supplier's programme for maintenance and inspection. An overview of exemptions and the risk assessment these are based on is acceptable.

7. OPERATOR-SPECIFIC REQUIREMENTS

The operator can impose specific requirements for the facility and the way the rig owner operates it. These requirements are often based on experience from similar operations, and are regarded by the operator as part of the continuous improvement process. The expectation is that such requirements will be discussed and agreed as part of the contract negotiations, and that the operator and rig owner will reach a common understanding of them in this process.

APPENDIX A. OPERATOR CHECKLIST

1.0	CONSENT APPLICATION	Ref	Done by
1.1	Prepare consent application and evaluation of facility-, location- and well-specific conditions in relation to the planned activity.	Section 26, management regulations	Operator
1.2	Assess exemptions on the facility and how these might affect the planned activities. This assessment addresses exemptions both individually and collectively.	Section 26, management regulations	Operator
1.3	Assess changes to the regulations and to actual conditions from the time the AoC was issued until consent is sought. Assess the need for an exemption application.	Section 26, management regulations	Operator sees to it with the rig owner
1.4	Overview of third-party equipment under contract to the operator. Assess whether exemptions are acceptable.		Operator
1.5	Assess whether exemptions for third-party equipment under contract to the rig owner are acceptable.		Operator
2.0	RIG INTAKE	Ref	Done by
2.1	Verify that maintenance and inspection of critical systems* included in technical condition have been performed as planned.	AoC	Rig owner
2.2	Verify that maintenance, testing and inspection that form part of barriers to major accidents have been performed as planned.	AoC	Rig owner
2.3	Verify compliance with the rig owner's management system.	AoC	Rig owner
2.4	Verify individual and organisational competence.	AoC	Rig owner
2.5	Overview and assessment of exemptions and nonconformities.	AoC	Rig owner
2.6	Overview of operational limitations, and assess these in relation to the planned operation.	AoC	Rig owner
2.7	Verify that the rig owner has control of third-party equipment it has under contract.		Rig owner
3.0	OPERATOR-SPECIFIC REQUIREMENTS	Ref	Done by
3.1	Specific requirements for the facility.	Contract	Rig owner
3.2	Specific requirements for the rig owner.	Contract	Rig owner

*Critical systems include well control, emergency shutdown, fire and gas, downstream, mooring, dynamic positioning (DP) and stability, and systems that are or could be exposed to hydrocarbons.