IADC

International Association of Drilling Contractors

Appendix 4 to Health, Safety and Environment Case Guidelines for Mobile Offshore Drilling Units

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Appendix 4 Review Status

| Issue | Review Status | Date |
|-------|--|-----------------|
| 01 | First formal issue following receipt of NSOAF Acknowledgement | February 2003 |
| 02 | Legislative Updates for Denmark, The Netherlands and Norway; Change of Norwegian Regulator from NPD to PSA; Enhancement of referencing between the ISM Code and this document; Additions to Section 3.3.3 (BOP Control System and API 16D) | 30 June 2004 |
| 3.1 | First Global Issue - Complete document update of all parts and appendices. Draft issued for consultation and comment | 6 March 2006 |
| 3.2 | Formal issue of Global version, incorporating comments and suggestions made by all stakeholders. | 3 October 2006 |
| 3.3 | Legislative update for Denmark and Italy, amendments to Australian, The Netherlands, UK and Norwegian regulatory sections. | 9 October 2007 |
| 3.3.1 | Administrative Update | 1 May 2009 |
| 3.3.2 | Administrative Update | 3 February 2010 |
| 3.5 | Legislative updates for Denmark and New Zealand. Also European Union Safety Directive published June 2013. | 1 January 2014 |
| 3.6 | Legislative updates for Australia Move Other Coastal Area Regulations and Codes to new Appendix 5 | 1 January 2015 |

A4 COASTAL STATE LEGISLATION REFERENCE INDEX

This appendix contains information on:

- > Contact details of the Regulatory Authorities in:
 - o Australia
 - o Netherlands
 - o Denmark
 - o Italy
 - o UK
 - o Norway
 - o Germany
 - o New Zealand
- Information regarding submission of the Cases for each regime.
- ➢ Reference indexes of the primary legislation as of June 2006.

***** PLEASE NOTE *****

Whilst every effort has been made to ensure the accuracy and completeness of this Appendix, it only reflects the knowledge available on the date of issue.

This Appendix will be updated on a more regular basis than the remainder of the guideline to accommodate legislative changes. However, Drilling Contractors are urged to verify the completeness of relevant legislative references with their respective Coastal State authorities prior to developing their HSE Case documents. They should also familiarize themselves with regional and local industry agreements, codes of practice, covenants, standards and treaties applicable to their operations.

This Appendix also contains details of country specific requirements not addressed within Parts 1 to 6, inclusive, of this global version of the IADC HSE Case Guideline. When developing an HSE Case for use in Coastal States where additional requirements exist, Drilling Contractors should ensure that these requirements are incorporated within the body of their HSE Case.

Country specific requirements, where identified, can be found after the foreword for each of the above Coastal States.

A4.1. AUSTRALIA

| Regulator: | National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) |
|-----------------|--|
| Location: | Level 8 |
| | The Alluvion |
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Safety Case Submission Requirements and Acceptance

The duties of an Operator and others in relation to health and safety at a facility are specified in

Schedule 3 of the Offshore Petroleum and Greenhouse Gas Storage Act 2006. Activities at (or in relation to) a facility are to be in accordance with an accepted Safety Case, or as otherwise approved by NOPSEMA:

The Operator:

Under Australian legislation, the 'Operator' is defined to be the entity in control of a facility. In the case of a MODU, this is not necessarily the oil company, but the owner of the MODU. A registration process for 'Operators' is administered by NOPSEMA where a record of 'Operators' can be found. Oil companies, third parties and support services derive safety responsibilities under the definition of 'persons in control of part of a facility or particular work'. The overall safety management arrangements for a location are described in a facility Safety Case for the MODU and a Safety Case revision for the project or site.

An operator must not construct, install, operate, modify or decommission a facility unless there is a safety case in force for the facility that relates to the corresponding activity. The operator must not construct, install, operate, modify or decommission a facility in a way that is contrary to the safety case in force for the facility, or in a way that is contrary to any limitation or condition applied by or under the Regulations, except if NOPSEMA has given consent for this in writing.

The operator must not continue to construct, install, use, modify or decommission a facility in the presence of a significant new risk to health and safety or in the presence of a significant increase in an existing risk, unless that new or increased risk is accounted for by the safety case in force for the facility, or by a proposed revision to the safety case.

The processes for submission and acceptance of a safety case:

□Prior to Safety Case submission a scope of validation must be agreed.

□ In order for a safety case to be accepted by NOPSEMA, it must first be submitted to NOPSEMA by the operator. The safety case may relate to one or more of the "stages of the life of the facility", which means one or more of construction, installation, operation, modification

and decommissioning. The safety case may also relate to one or more facilities.

After having received a Safety Case, NOPSEMA may request that more information be

provided, giving at least 30 days notice. Any such information, once received, is then

treated as being part of the Safety Case

 $\hfill\square\ensuremath{\mathsf{NOPSEMA}}\xspace$ must accept the Safety Case if there are reasonable grounds for believing that it

is appropriate to the facility, it complies with the requirements, and that any validation meets the legislative requirements. NOPSEMA must give the operator a reasonable

opportunity to change and resubmit a Safety Case that does not initially meet the

requirements. NOPSEMA also has the option to accept a Safety Case for particular stages of the life of the facility, or to impose limitations or conditions.

□NOPSEMA has 90 days from receipt of a Safety Case in which to notify the operator of its decision either to accept the Safety Case (fully, for selected stages, or with conditions),

refuse to accept it, or give notice that more time is required.

A mechanism is established whereby NOPSEMA may authorise departure from an accepted

Safety Case. NOPSEMA is able to give consent for an operator to work other than in accordance with an accepted Safety Case if satisfied that there will not be an occurrence of a significant new risk or increased risk to health and safety, notwithstanding the offences.

Provisions relating to the revision of a Safety Case:

The operator of a facility must submit a proposed revision of the Safety Case as soon as practicable after any of the specified circumstances arise. The relevant circumstances

HSE Case Guidelines Appendix 4

include new technical knowledge, or new methods for identifying and assessing risks of major accident events, that make the Safety Case out-dated. They also include proposals to make a change or changes to the facility, or to the activities that are carried out, or to the safety management system, if the Safety Case does not already address those changes. A revision to a Safety Case may take the form of a revision to a part only of the Safety Case, with the agreement of NOPSEMA.

An example of Safety Case revision includes documentation specific to a particular well or campaign. The issues of well design or well testing managed by the oil company need to be detailed and shown to be controlled under the Safety Case revision.

In addition, NOPSEMA may request in writing that the operator submit a proposed revision to the Safety Case. In such cases, the operator is allowed to make a submission that a revision is not needed, or that a different revision should be made, and NOPSEMA must take account of that submission before deciding whether a revision is required and what the revision must consider.

□Further, the operator must submit a proposed revision of the Safety Case every 5 years, regardless of whether revisions have been made for other reasons in the intervening period. Such revisions must specifically address the long term integrity of control measures

When evaluating environmental risks as part of the HSE Case, Drilling Contractors should ensure that the Australian Federal Government guidelines on preparation and submission of an Environment Plan have been taken into account. These guidelines can be found at:

http://www.nopsema.gov.au/assets/document/N-04700-GL0931-Environment-Plan-Preparation-Interim-Guideline.pdf

AUSTRALIAN LEGISLATION

Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009

| Regulation | | Requirement | HSE Case Ref |
|-------------------------------------|---|--|--------------|
| | | | |
| Part 2 – Safety Cases | a descr | ety case for the facility must contain iption of the facility that gives details | Part 3 |
| Division 1 – Content of | | the layout of the facility; and the technical and other control | |
| Safety Cases | | measures identified as a result of the | 3.1.3 |
| Subdivision A – Contents | (c) | formal safety assessment; and the activities that will, or are likely to, take place at. Or in connection with , | 3.1.5 |
| of a Safety Case | | the facility; and | |
| Regulation 2.5 – Facility | (d) | for a facility that is a pipeline: (I) the route corridor of the pipeline and the | 3.2.1 |
| description, formal safety | | pipelines interface start and end positions; and | n/a |
| assessment and safety | | (II) the compositions of petroleum or greenhouse gas | 11/4 |
| management system (1) | | substance that are to be conveyed through the pipeline when it is operating; and (III) the safe operating limits | |
| | (e) | for conveying those composition through the pipeline; and any other relevant matters. | |
| | contain safety a assessi conduc (a) | assessment ety case for the facility must also a detailed description of the formal assessment for the facility, being an ment, or series of assessments, ted by the operator that: Identifies all hazards having the potential to cause a major accident | |
| Part 2 – Division 1 – | (b) | event; and Is a detailed and systematic assessment of the risk associated with each of those hazards, | |
| Subdivision A – | | including the likelihood and | |
| Regulation 2.5 – (2) | (c) | consequences of each potential major accident event; and Identifies the technical and other control measures that are necessary to reduce that risk to a level that is | Part 4 |
| Issue 3.6 – 1. January 1 | | to reduce that fisk to a level that is | Δ4-7 |

| | as low as reasonably practicable. | | |
|---|--|-----------------|------|
| | | | |
| | Safety management system | | |
| | (3) The safety case of the facility must also contain a detailed description of the safety management system that: | 4.3.1 | |
| | (a) is comprehensive and integrated; and | 4.3.2 | |
| | (b) provides for all activities that will, or are likely to, take place at, or in connection with the facility; and | | |
| | (c) provides for the continual and systematic | | |
| | identification of hazards to health and safety | | |
| | of persons at or near the facility; and | 4.3.3 | |
| | (d) provide for the continual and systematic | | |
| Part 2 – Division | assessment of: | | |
| 1 – Subdivision A – Regulation 2.5 – (3) | (i) the likelihood of the occurrence, during normal or emergency situations, of injury or occupational illness associated with those hazards; | Part 2 | |
| | (ii) the likely nature of such injury or | | |
| | occupational illness; and | | |
| | (e) provides for the reduction to a level that is as | 2.3 | |
| | low as reasonably practicable of risks to | 2.3.1 | |
| | health and safety of persons at or near the | 2.3.1 | |
| | facility including, but not limited to: | | |
| | (i) risks arising during evacuation, escape and rescue in case of emergency; | 2.4.2 | |
| | (ii) risks arising from equipment and hardware; and | 2.4.2; 2.4.3 | |
| | (f) provides for inspection, testing and | | |
| | maintenance of the equipment and hardware | | |
| | that are the physical control measures for | | |
| Issue 3.6 – 1. January | 2045 | | Δ4-8 |

| | those risks; | | |
|--------------------------|--|-----------------|--|
| | (g) provides for adequate communications | | |
| | between the facility and any relevant: | | |
| | (i) facility; or | | |
| | (ii) vessel; or | 2.3.1 | |
| | (iii) aircraft; or | | |
| | (iv) on-shore installation; | | |
| | (h) provides for any other matter that is | | |
| | necessary to ensure that the safety | | |
| | management system meets the | | |
| | requirements and objectives of these | | |
| | Regulations; and | | |
| | (i) specifies the performance standards that apply. | | |
| | Note The safety management system must | | |
| | Note The safety management system must | | |
| | provide for all hazards and risks to persons at the | | |
| | facility, not just risks of major accident events. | 2.3.19 | |
| | Safety case for construction or installation stage | | |
| | (4) If an operator of a facility submits to NOPSEMA a safety case for a construction or installation stage in the life of the facility, the safety case must contain the matters mentioned in sub regulations (1), (2) and (3) in relation to: a. the facility at the stage in life of the facility; and b. the activities that will, or are likely to, take place at, or in connection with, the facility during the stage in the life of the facility; and c. to the extent that it is practicable – the facility and the activities that will, or are likely to, take place when the facility is in operation. | 2.2.2; 2.2.3 | |
| Part 2 – Division 1 – | | | |

| Subdivision A – | | | |
|----------------------------|---|----------|--|
| | | | |
| Regulation 2.5 – | | | |
| (4) | | | |
| | | 2.4 | |
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| Dort 2 Safati | Implementation and improvement of the applet | | |
| Part 2 – Safety Cases | Implementation and improvement of the safety management system | | |
| Division 1 – | | | |
| Content of | | | |
| Safety Cases | The safety case for a facility must demonstrate | 2.4; 2.5 | |
| Subdivision A – | that there are effective means of ensuring: | | |
| Contents | a) the implementation of the safety management | | |
| of a Safety Case | system; and | | |
| - | (b)continual and systematic identification of | | |
| Regulation 2.6 – | deficiencies in the safety management system; | | |
| Implementation | and | | |
| and | | | |
| improvement of the safety | (c)continual and systematic improvement of the | | |
| - | safety management system. | | |
| management system | | | |
| 59510111 | | | |
| | | | |
| Part 2 – Safety | Standards to be Applied | | |
| Cases | | | |
| Division 1 – Content of | The safety case for a facility must specify all | 2; 3; 4 | |
| | Australian and international standards that have | | |
| Safety Cases | been applied, or will be applied, in relation to the | | |
| Subdivision B – | facility or plant used on or in connection with the | | |
| Safety | facility for the relevant stage or stages in the life | | |
| Measures | of the facility for which the safety case is submitted. | | |
| Regulation 2.7 – | | | |
| Standards to be | | | |
| Applied | | | |
| | | | |
| Part 2 – Safety | Command Structure | | |
| | | | |

| | | 1 | |
|----------------------------|---|-----|--|
| Cases | | | |
| Division 1 – Content of | (1) For a facility that is manned, the safety case must specify: | 2.2 | |
| Safety Cases | (a) an office or position at the facility, the | | |
| Subdivision B – | occupant of which is in command of the | | |
| Safety | facility and responsible for its safe operation | | |
| Measures | when on duty; and | | |
| Regulation 2.8 – | (b) an office or position at the facility, the | | |
| Command Structure | occupant of which is responsible for | | |
| | implementing and supervising procedures in | | |
| | the event of an emergency at the facility; | | |
| | and | | |
| | (c) the command structure that applies in the | | |
| | event of an emergency at the facility. | | |
| | | | |
| | Note The same person may occupy both of the | | |
| | offices or positions mentioned in paragraph 1 (a) and (b). | | |
| | (2) The safety case must also describe, in detail, the | | |
| | means by which the operator will ensure that, as | | |
| | far as reasonably practicable: | | |
| | (a) the offices or positions mentioned in subregulation (1) | | |
| | are continuously occupied while the | | |
| | facility is in operation; | | |
| | (b) the person who occupies each office or | | |
| | position mentioned in subregulation (1) has the | | |
| | necessary skills, training and ability to | | |
| | perform the functions of the office or position; | | |
| | and | | |
| | (c) the identity of the persons who occupy each | | |
| | office or position, and the command structure | | |
| | can, at all times, be readily ascertained by | | |
| | any person at the facility. | | |
| Part 2 – Safety Cases | Members of the workforce must be competent | | |
| Division 1 – | The safety case for a facility must describe the | | |

| HSE Case Guidelines Ap | | | |
|-----------------------------------|--|-------|--|
| Content of | means by which the operator will ensure that | 2.2.4 | |
| Safety Cases | each member of the workforce at the facility has | | |
| Subdivision B – | the necessary skills, training and ability: | | |
| Safety | (a) to undertake routine and non-routine tasks | | |
| Measures | that might reasonably be given to him or her: | | |
| Regulation 2.9 – Members | ii. normal operating conditions; and | | |
| of the workforce | iii. abnormal or emergency conditions; and | | |
| must be | iii. during any changes to the facility; | | |
| competent | and | | |
| | (b) to respond and react appropriately, and at the | | |
| | level that might be reasonably required of him | | |
| | or her, during an emergency. | | |
| | | | |
| Part 2 – Safety Cases | <i>Permit to work</i> system for safe performance of various | | |
| Division 1 – Content of | activities | | |
| Safety Cases | (1) The Safety Case for a facility must | | |
| Subdivision B – | provide for the operator of the facility to establish | 2.3.4 | |
| Safety | and maintain a | | |
| Measures | documented system of coordinating and | | |
| Regulation 2.10 | controlling the safe performance of all work | | |
| <i>work</i> system for | activities of members of the workforce at the | | |
| safe | facility, including in particular: | | |
| performance of | (a) welding and other hot work; and | | |
| various | (b)cold work (including physical isolation); and | | |
| activities | (c)electrical work (including electrical isolation); and | | |
| | (d) entry into, and working in a confined space; and | | |
| | (e) procedures for working over water; and | | |
| | (f) diving operations. | | |
| | | | |
| | Note: Confined spaces is defined in regulation 1.5. | | |
| | (2) The system must: | | |
| | (a) form part of the Safety Management System | | |
| | described in the Safety Case in force for the | | |
| | facility; and | | |
| | (b)identify the persons having responsibility to | | |
| | authorise and supervise work; and | | |
| L | | | |

| | (a) ansure that members of the workforce are | | |
|----------------------------|--|---------|--|
| | (c) ensure that members of the workforce are | | |
| | competent in the application of the permit to | | |
| | work system. | | |
| | | | |
| Part 2 – Safety Cases | Involvement of members of the workforce | | |
| Division 1 – Content of | (1) The operator of a facility must demonstrate to NOPSEMA, to the reasonable | 2.2.1.3 | |
| Safety Cases | satisfaction of NOPSEMA, that: | | |
| Subdivision B – Safety | (a) in the development or revision of the safety | | |
| Measures | case for the facility, there has been | | |
| Regulation 2.11 | effective consultation with, and participation | | |
| - | of, members of the workforce; | | |
| Involvement of | and | | |
| members of | (b)the Safety Case provides adequately for | | |
| the workforce | effective consultation with, and the effective | | |
| | participation of, the members of the | | |
| | workforce, so that they are able to arrive at | | |
| | informed opinions about the risks and | | |
| | hazards to which they may be exposed on the | | |
| | facility. | | |
| | (2) A demonstration for the purposes of (1) (a) | | |
| | must be supported by adequate documentation. | | |
| | (3) In this regulation (1): | | |
| | | | |
| | <i>members of the workforce</i> includes members of the workforce who are: | | |
| | (a) identifiable before the Safety Case is developed; and | | |
| | (b) working, or likely to be working, on the relevant facility. | | |
| | Note: Part 3 of Schedule 3 to the Act sets out the broad consultative provisions that apply; including provisions for the establishment of designated workgroups, the election of health and safety representatives and the establishment of OHS committees. The arrangements under these consultative | 2.2.3.2 | |
| | provisions should be used for consultation with members of the workforce about the development, preparation and revision of the safety case. | | |

| Part 2 – Safety Cases | Design, construction, installation, maintenance and modification | | |
|--|---|--|--|
| Division 1 – Content of Safety Cases Subdivision B – Safety Measures Regulation 2.12 – Design, construction, installation, maintenance and modification | (1) The safety case for a facility must describe the means by which the operator will ensure the adequacy of the design, construction, installation, maintenance or modification of the facility, for the relevant stage or stages in the life of the facility for which the safety case has been submitted. (2) In particular, the design, construction, installation, maintenance and modification of the facility must provide for(a) adequate means of inventory isolation and pressure relief in the event of an emergency; and (b)adequate means of gaining access for servicing and maintenance of the facility and machinery and other equipment on board the facility; and (c) adequate means of maintaining the structural integrity of a facility; and (d) implementation of the technical and other control measures identified as a result of the formal safety assessment. | 2.3.2; 2.3.14; 2.3.18; 2.3.19; 2.4 | |
| Part 2 – Safety Cases Division 1 – Content of Safety Cases Subdivision B – Safety Measures Regulation 2.13 – Medical and pharmaceutical supplies and services | Medical and pharmaceutical supplies and services The Safety Case in respect of a facility must specify the medical and pharmaceutical supplies and services, sufficient for an emergency situation, that must be maintained on, or in respect of, the facility. | 2.2.3.7 | |

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|-----------------------------------|--|---------|--|
| Part 2 – Safety Cases | Machinery and equipment | | |
| Division 1 – Content of | (1) The Safety Case in respect of a facility must | 3. | |
| Safety Cases | specify the equipment required on the facility | | |
| Subdivision B – | (including process equipment, machinery and | | |
| Safety | electrical and instrumentation systems) that | | |
| Measures | relates to, or may affect, the safety of the facility. | | |
| Regulation 2.14 | (2) The safety case must demonstrate that: | | |
| Machinery and | (a) the equipment is fit for its function or use in normal operating conditions; | | |
| equipment | and | | |
| | (b) to the extent that the equipment is intended to function, or to be used, in an emergency — the equipment is fit for its function or use in of the emergency. | | |
| | emergency. | | |
| | | | |
| Part 2 – Safety Cases | Drugs and intoxicants | | |
| Division 1 – Content of | The safety case for a facility must describe the | | |
| Safety Cases | means by which the operator will ensure that | | |
| Subdivision B – Safety | there is in place, or will be put in place, a method of: | | |
| Measures | (a) securing, supplying, and monitoring the use | 2.2.3.7 | |
| Regulation 2.15 | of, therapeutic drugs on the facility; | | |
| – Drugs | and | | |
| and intoxicants | (b) preventing the use of controlled substances (other than therapeutic | | |
| | drugs); | | |
| | | | |
| | and | | |
| | (c) preventing the use of intoxicants on the facility. | | |
| Part 2 – Safety Cases | Evacuation, escape and rescue analysis | | |
| Division 1 – | (1) The safety case for a facility must contain a | 4;5 | |
| Content of | detailed description of an evacuation, escape and | -,- | |
| Safety Cases | rescue analysis. | | |
| Subdivision C – | (2) The evacuation, escape and rescue analysis | | |
| Emergencies | must: | | |
| Regulation 2.16 | | | |

| | | 1 |
|------------------------|--|---|
| - | (a) identify the types of emergency that could | |
| Evacuation, escape and | arise at the facility; and | |
| | (b) consider a range of routes for evacuation and | |
| rescue analysis | escape of persons at the facility in the event | |
| | of an emergency; and | |
| | (c) consider alternative routes for evacuation and | |
| | escape if a primary route is not freely | |
| | passable; and | |
| | (d) consider different possible procedures for | |
| | managing evacuation, escape and rescue in | |
| | the event of an emergency; and | |
| | (e) consider a range of means of, and equipment | |
| | for, evacuation, escape and rescue; and | |
| | (f) consider a range of amenities and means of | |
| | emergency communication to be provided in | |
| | a temporary refuge; and | |
| | (g) consider a range of life saving equipment, | |
| | including: | |
| | i. life rafts to accommodate safely the | |
| | maximum number of persons that are likely | |
| | to be at the facility at any time; | |
| | ii. equipment to enable that number of persons | |
| | to obtain access to the life rafts after | |
| | launching and deployment; | |
| | and | |
| | iii in the case of a floating facility — suitable | |
| | | |
| | equipment to provide a float-free capability | |
| | and a means of launching; | |
| | and | |
| | (h) identify, as a result of the above | |
| | considerations, the technical and other control | |
| | measures necessary to reduce the risks | |
| | associated with emergencies to a level that is | |
| | as low as reasonably practicable | |
| | Note In so far as it addresses major accident | |
| | events, the evacuation, escape and rescue | |
| | analysis forms part of the formal safety | |
| | assessment. | |
| | | |

| | Fire and explosion risk analysis | | |
|--------------------------------------|---|----------------|-------|
| Part 2 – Safety | | | |
| Cases | (1) The safety case for a facility must contain a | 2.3.5; 2.3.19; | |
| Division 1 – | detailed description of a fire and explosion risk | 3.4.10; 3.5; | |
| Content of | analysis. | 4.4 | |
| Safety Cases | (2) The fire and explosion risk analysis must: | | |
| Subdivision C – | (a) identify the types of fires and explosions that | | |
| Emergencies | could occur at the facility; and | | |
| Regulation 2.17 – Fire and | (b) consider a range of measures for detecting | | |
| explosion risk | those fires and explosions in the event that | | |
| analysis | they do occur; and | | |
| | (c) consider a range of measures for eliminating | | |
| | those potential fires and explosions, or for | | |
| | otherwise reducing the risk arising from fires | | |
| | and explosions; | | |
| | (d) consider the incorporation into the facility of | | |
| | both automatic and manual systems for the | | |
| | detection, control and extinguishment of: | | |
| | i. outbreaks of fire; | | |
| | an | | |
| | ii. leaks or escapes of petroleum; | | |
| | (e) consider a range of means of isolating and | | |
| | safely storing hazardous substances, such as | | |
| | fuel, explosives and chemicals, that are used | | |
| | or stored at the facility; and | | |
| | (f)consider the evacuation, escape and rescue | | |
| | analysis, in so far as it relates to fires and | | |
| | explosions; | | |
| | and | | |
| | (g) identify, as a result of the above | | |
| | considerations, the technical and other control | | |
| | measures necessary to reduce the risks | | |
| | associated with fires and explosions to a level | | |
| | that is as low as reasonably practicable. | | |
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|--|--|--------------------------------|--|
| | <i>Note</i> In so far as it addresses major accident events, the fire and explosion risk analysis forms part of the formal safety assessment. | | |
| Part 2 – Safety Cases Division 1 – Content of Safety Cases Subdivision C – Emergencies Regulation 2.18 – Emergency communications systems | Emergency communications systems (1) The Safety Case in respect of a facility must provide for communications systems that, in the event of an emergency in connection with the facility, are adequate for communication: (a) within the facility; and (b) between the facility and: i appropriate on-shore installations; and ii appropriate vessels and aircraft; and iii other appropriate facilities. (2) In particular, the Safety Case must provide for the communications systems of the facility to be: (a) adequate to handle: i a likely emergency on or relating to the facility; and | 3.4.6; 5.2 | |
| Part 2 – Safety Cases | ii the operation requirements of the facility; and (b) protected so as to be capable of operation in an emergency to the extent specified by the Formal Safety Assessment relating to the facility. | | |
| Division 1 – Content of Safety Cases Subdivision C – | The Safety Case in respect of a facility must make adequate provision for the facility, in the event of an emergency, in respect of: | 3.2.3; 3.2.4; 3.3; 3.4; 3.5 | |

| Emergencies | (a) back-up power supply; and | | |
|---------------------------------------|--|---------|--|
| Regulation2.19 | (b) lighting; and | | |
| – Control | (c) alarm systems; and | | |
| Systems | (d) ballast control; | | |
| | and | | |
| | (e) emergency shut-down systems. | | |
| | | | |
| Part 2 – Safety Cases | Emergency Preparedness | | |
| Division 1 – | (1) The safety case for a facility must: | 3.6; 5. | |
| Content of | (a) describe a response plan designed to | | |
| Safety Cases | address possible emergencies, the risk of | | |
| Subdivision C – | which has been identified in the formal safety | | |
| Emergencies | assessment for the facility; | | |
| Regulation 2.20 – Emergency | and | | |
| Preparedness | (b) provide for the implementation of that plan. | | |
| | (2) The plan must: | | |
| | (a) specify all reasonably practicable steps to | | |
| | ensure the facility is safe and without risk to | | |
| | the health of persons likely to be on the | | |
| | facility at the time of the emergency; | | |
| | and | | |
| | (b) specify the performance standards that it applies. | | |
| | (3) The Safety Case must make adequate | | |
| | provision for escape drill exercises and fire drill | | |
| | exercises by persons on the facility. | | |
| | (4) In particular, those exercises must ensure that | | |
| | those persons will be trained to function in the | | |
| | event of emergency with an adequate degree of | | |
| | knowledge, preparedness and confidence | | |
| | concerning the relevant emergency procedures. | | |
| | (5) The Safety Case must provide for the operator | | |
| | of the facility to ensure, as far as reasonably | | |
| | practicable, that escape drill exercises and fire | | |
| | drill exercises are held in accordance with the | | |
| | Safety Case relating to the facility. | | |
| | (6) The Safety Case for a mobile facility | | |
| | must also specify systems that: | | |
| | | | |

| | F = = | | |
|-----------------------------------|--|-----|--|
| | (a) in the event of emergency, are adequate to shut down or disconnect all operations on the facility that | | |
| | could adversely affect the health and safety of persons at or near the facility; | | |
| | and | | |
| | □are adequate to give appropriate audible and visible warnings | | |
| | of the shutting down or disconnecting of those | | |
| | operations. | | |
| Part 2 – Safety Cases | Pipes | | |
| Division 1 – Content of | (1) The safety case for a facility that is: | N/A | |
| Safety Cases | (a) connected to one or more pipes; or | | |
| Subdivision C - | (b) proposed to be connected to one or more | | |
| Emergencies | pipes; | | |
| Regulation 2.21 – Pipes | that convey, or will convey, petroleum or greenhouse gas substance to the facility must specify adequate procedures for shutting down or isolating, in the event of emergency, each of those pipes so as to stop the flow of petroleum or greenhouse gas substance into the facility through the pipe. | | |
| | (2) In particular, the procedures must include: | | |
| | (a) effective means of controlling and operating all relevant emergency shut-down valves for a pipe; and | | |
| | (b) a fail-safe system of isolating a pipeline in the event of failure of other safety devices for the pipe. | | |
| | (3) The safety case for a facility must also specify: | | |
| | (a) adequate means of mitigating, in the event of emergency, the risks associated with each pipe connected to the facility; and | | |
| | (b) a frequency of periodic inspection and testing of pipe emergency shut-down valves that can reasonably be expected to ensure that they will operate correctly in an emergency. | | |
| | (4) In this regulation: | | |
| | <i>facility</i> does not include: | | |
| | | | |

| (a) a well mentioned in paragraph 4 (4) (a) or (b), or in subparagraph 4 (8) (b) (i) or (ii), of Schedule 3 to the Act; or (b) plant and equipment associated with a well mentioned in any of those provisions; or (c) a pipe or system of pipes mentioned in any of those provisions. | | |
|---|---|--|
| Vessel and aircraft control | | |
| (1) The safety case for a facility must describe a system, that is implemented or will be implemented, as part of the operation of the facility that ensures, as far as reasonably practicable, the safe performance of operations that involve vessels or aircraft. (2) The system must be able to meet the emergency response requirements identified in the Formal Safety Assessment in relation to the facility and be described in the facility's Safety Management System. (3) The equipment and procedures for ensuring safe vessel and aircraft operations must be fit for purpose. | 2.3.13; 2.3.16; 5.2 | |
| Arrangements for records (1) This regulation applies to the following documents: (a). the safety case in force for the facility; (b). a revision to the safety case for the facility; (c). a written audit report for the safety case; (d). a copy of each report given to NOPSEMA in accordance with subregulation 2.42 (2) (2) The safety case for a facility must include arrangements for: | 1; 2.4 | |
| | or in subparagraph 4 (8) (b) (i) or (ii), of Schedule 3 to the Act; or (b) plant and equipment associated with a well mentioned in any of those provisions; or (c) a pipe or system of pipes mentioned in any of those provisions. Vessel and aircraft control (1) The safety case for a facility must describe a system, that is implemented or will be implemented, as part of the operation of the facility that ensures, as far as reasonably practicable, the safe performance of operations that involve vessels or aircraft. (2) The system must be able to meet the emergency response requirements identified in the Formal Safety Assessment in relation to the facility and be described in the facility's Safety Management System. (3) The equipment and procedures for ensuring safe vessel and aircraft operations must be fit for purpose. Arrangements for records (1) This regulation applies to the following documents: (a). the safety case in force for the facility; (b). a revision to the safety case for the facility; (c). a written audit report for the safety case; (d). a copy of each report given to NOPSEMA in accordance with subregulation 2.42 (2) (2) The safety case for a facility must include | or in subparagraph 4 (8) (b) (i) or (ii), of Schedule 3 to the Act; or(b) plant and equipment associated with a well mentioned in any of those provisions; or(c) a pipe or system of pipes mentioned in any of those provisions.Vessel and aircraft control(1) The safety case for a facility must describe a system, that is implemented or will be implemented, as part of the operation of the facility that ensures, as far as reasonably practicable, the safe performance of operations that involve vessels or aircraft.(2) The system must be able to meet the emergency response requirements identified in the Formal Safety Assessment in relation to the facility and be described in the facility's Safety Management System.(3) The equipment and procedures for ensuring safe vessel and aircraft operations must be fit for purpose.Arrangements for records(1) This regulation applies to the following documents: (a). the safety case in force for the facility; (b). a revision to the safety case for the facility; (c). a written audit report for the safety case; (d). a copy of each report given to NOPSEMA in accordance with subregulation 2.42 (2) (2) The safety case for a facility must include arrangements for: |

| (b) securely storing the documents and records: | |
|--|--|
| i at an address nominated for the facility; | |
| and | |
| ii in a manner that facilitates their retrieval as | |
| soon as practicable. | |
| (3) A document mentioned in paragraph (1) (a) or | |
| (b) must be kept for 5 years after the date of | |
| acceptance of the document NOPSEMA. | |
| (4) A report mentioned in paragraph (1) (c) must | |
| be kept for a period of 5 years after the date of | |
| receipt by the operator. | |
| (5) A copy mentioned in paragraph (1) (d) must | |
| be kept for a period of 5 years after the date the | |
| report was given to NOPSEMA. | |

A4.2 NETHERLANDS

| Regulator: | State Supervision of Mines (Staatstoezicht op de Mijnen) | | |
|------------|--|------------------------------|--|
| Location: | (visiting address) | Princes Beatrixlaan 428 | |
| | | VOORBURG (CBS building) | |
| | Postal Address: | Inspector General of Mines | |
| | (all) | State Supervision of Mines | |
| | | Postbus 8 | |
| | | 2270 AA VOORBURG | |
| | | The Netherlands | |
| | Telephone: | +31 70 39 56 500 (reception) | |
| | Fax: | +31 70 39 56 555 | |
| | E-mail: | info@sodm.nl | |
| | Web-site: | www.sodm.nl | |

Safety and Health Document Submission Requirements:

For MODU's entering the Dutch sector, a Safety and Health Document must be submitted to the Inspector General of Mines at least eight weeks before entry and commencement of operations. This guideline shall form the basis of such documents.

Where a MODU already has an accepted Safety and Health Document, it must be revised, updated and re-submitted based on the following criteria:

At least eight weeks prior to the 5th year anniversary of first submission of the current Safety and Health Document;

Prior to carrying out any major modifications or material changes to the MODU or to any of its safety critical systems; or,

Where the current Safety and Health Document is no longer representative of the MODU or the operations it performs.

In this context, major modifications and material changes include, change of owner / Management System, major structural changes, any change to protective and safety critical systems as well as additional operations not covered by the current Safety and Health Document.

Acceptance Regime:

Legislation requires that a Safety and Health Document be submitted to State Supervision of Mines for review and assessment before operations commence.

A key condition for acceptability is that the Safety and Health Document complies with the requirements of the Working Conditions Act 1998 - Revision 1st September 2005

State Supervision of Mines has developed a three-phase review and assessment strategy to determine whether an adequate "Case for Safety and Health" has been made. An overview of this Strategy together with the key elements that assessors will examine is provided in the "Report to Industry" issued by State Supervision of Mines. The first phase is an administrative overview to ensure that the document is complete and generally complies with legislation. The second phase is a detailed technical review to ensure that the demonstrated case for safety is robust. The third phase is on-site / location verification that the written word is put into practice.

Once satisfied that the Case for Safety and Health has been made, State Supervision of Mines will issue a letter of "no further questions" (acceptance). Re-submission of the Safety and Health Document is required every five years.

State Supervision of Mines does not have a charging regime. State Supervision of Mines will therefore only review a submitted Safety and Health Document if the Drilling Contractor can demonstrate they will execute operations in The Netherlands.

Other Information:

Dutch Safety and Health documents have to demonstrate compliance with all legislation applicable to the extractive industries. These documents must include an objective assessment of the adequacy and applicability of a Drilling Contractor's management system to effectively control risks and manage operational and maintenance activities. These management systems must also comply with all legislation applicable to the extractive industries.

It is common practice in The Netherlands for companies to submit an integrated Safety, Health and Environment Document to State Supervision of Mines for review and assessment. Risks to the environment caused by oil and gas activities should also be addressed. Similarly, an integrated Safety, Health and Environment management system, demonstrating adequate and effective management control of business process(s) are also commonplace.

State Supervision of Mines advocates and actively encourages all companies to address safety, health and environmental issues and risks in an integrated manner.

In the Netherlands it is acceptable to submit one hard copy plus one digital copy in ".PDF" format of the HSE Case.

A preface is required with a senior member of management signing for "acceptance" of the HSE case and thereby assuming legal responsibility for the case.

DUTCH LEGISLATION

| Working Conditions Act 1998 – revision 7 th April 2005 (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | |
|---|---|-----------------------------------|---------------------------|
| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Article 3 | Policy with respect to working conditions circumstances (<i>Arbobeleid</i>) | 2.1 | |
| Article 4 | Policy with respect to sickness (Beleid t.a.v. Ziekteverzuim) | 2.1 2.3.7 | |
| Article 5 | Risk inventory and evaluation of risk (<i>Inventarisatie en evaluatie van risico's)</i> | Part 4 4.2 4.3.2 | |
| Article 6 | Prevention and avoidance of accidents in which dangerous goods are involved (Voorkoming en beperking van zware ongevalen waarbij gevaarlijke stoffen zijn betrokken) | Part 4 | |
| Article 8 | Training and information (<i>Voorlichting en Onderricht</i>) | 2.2.4.4 2.2.4.5 2.3.3 & 4.8 | |
| Article 9 | Reporting of accidents and occupational illnesses (<i>Melding ongevallen en beroepsziekten</i>) | 2.2.2.4 2.4.2 | NOGEPA Guideline |
| Article 10 | Prevention of hazards to third parties (Voorkomen van gevaar voor | 2.2.2.3 | |
| Article 11 | <i>derden)</i> Responsibilities of the employees (Verplichtingen van de werknemers) | 2.2.1.2 2.2.2.3 | |
| Article 12 | Employee representation (Personeelsvertegenwoordiging) | 2.2.3.2 | |
| Article 13 | Professional support in the area of prevention and protection | 2.2.3.3 | |
| Article 15 | <i>(Deskundige bijstand op het gebied van preventie en bescherming)</i> Professional support in the area of emergency response | 2.2.3.3 2.2.4.4, 2.3.3 | |
| | (Deskundige bijstand op het gebied van bedrijfs hulpverlening) | Part 5 | |

| (Arbeidsomstandignedenwet 1996 - Kevisie 2005) | | | | |
|--|---|---|---------------------------|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| Article 18 | Work related medical advice and investigation. (Arbeidsgeneeskundig onderzoek) | 2.2.3.7 2.3.7 | | |
| Article 19 | Cooperation between several employers (Samenwerking tussen verschillende werkgevers) | 2.2.1.2 2.2.3.4 2.2.3.5 2.3.1 2.3.12.1.1 2.3.12.1.2, 2.3.12.1.3 2.3.20 | | |
| Article 29 | Discontinuation of activities in case of imminent danger (Onderbreking van werkzaamheden bij dreigend gevaar) | 2.2.2.3 | | |

| Working Conditions Decree 1997 – revision 7 th July 2006 Arbeidsomstandighedenbesluit | | | |
|---|---|-------------------------|---|
| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Article 1.40 – 1.42 | Arrangements to protect and guide pregnant employees (Zwangere werknemers) | 2.2.3.7 | |
| Article 2.16 – 2.22 | Emergency preparedness (Bedrijfshulpverlening) | 2.3.3 Part 5 | |
| Article 2.41.1 | Supervision from a responsible person (Toezicht door en verantwoordelijk persoon) | 2.2.1.3 2.3.1 6.2 | |
| Article 2.41.2 | Competent personnel in case of hazardous work (Vakbekwaam personeel bij gevaarlijk werk) | 2.2.4 | |
| Article 2.41.3 | Regular safety drills (Regelmatige veiligheids oefeningen) | 2.3.3 Part 5 | Emergency Response Plan / NOGEPA Guideline |
| Article 2.41.4 | Reporting of serious hazards (<i>Melding van ernstig gevaar)</i> | 2.4.2 | Emergency Response Plan / NOGEPA |

| (Arbeidsomstandighe | (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | | |
|---------------------|---|--|----------------------------|--|--|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | | | |
| | | | Guideline | | | |
| Article 2.41.5 | Efficient and clear communication (Communicatie op begrijpelijke wijze) | 2.2.3.4 2.2.3.5 2.2.4.5 2.3.5 | | | | |
| Article 2.41.6 | Alarm and communication systems (Alarm en communicatie systemen) | 3.4.6 | Station bills | | | |
| Article 2.42.1 | Obligation to cooperate as requested in article 19 of the Labour Circumstances law (Verplichting tot samenwerking zoals in art 19 ARBOWET gevraagd) | 2.3.12.1.1 2.2.3.4 2.2.3.5 2.3.1 2.3.20 | | | | |
| Article 2.42.2 a | Risk inventory and evaluation (<i>Risico inventarisatie en evaluatie</i>) | Part 4 4.6 | | | | |
| Article 2.42.2b | Actions with respect to findings from the Risk Inventory & Evaluation (RIE) <i>(Maatregelen)</i> | 1.2.7 | | | | |
| Article 2.42.2c | Actions taken with respect to preventing the repetition of an accident (<i>Maatregelen t.b.v. herhaling</i>) | 2.3.9 2.3.10 4.5, 4.6 4.8.2, 4.8.3 & 4.8.4 | | | | |
| Article 2.42.2d | Cooperation between several employers (Samenwerking diverse werkgevers) | 2.2.3.4 2.2.3.5 2.3.1 2.3.12.1.1 2.3.20 | | | | |
| Article 2.42.2e | Providing information that the design and use of the workplace is safe (Gegevens waaruit blijkt dat het ontwerp, gebruik etc. v/d arbeidsplaats veilig is) | 2.4.6 2.4.7 3.1 3.2 4.6 | | | | |
| Article 2.42.3 | Description of purpose and measurements taken by the employer with respect to the coordination between employers (<i>Doel, maatregelen, en wijze van</i> <i>coördinatie</i>)) | 2.2.3.4 2.2.3.5 2.3.12 2.3.13 2.3.15 | Emergency Response Plan | | | |
| Article 2.42.4 | Revisions (revisies) | 1.2.5 2.5.1 | | | | |
| Article 2.42.a | Permit to work system | 2.3.4 | | | | |

| (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | | |
|--|--|---------------------------------------|---------------------------|--|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | | |
| | (Werkvergunning) | | | | |
| Article 2.42 b | P.O.B. list <i>Personen register</i> | 2.3.16.1 | | | |
| Article 2.42c | Accident and near miss reporting system (Ongevals & Bijna ongevals rapportage system) | 2.4.2 | NOGEPA Guidelines | | |
| Article 2.42e | Safety and Health Management system (Veiligheids en Gezondheids zorg systeem) | Part 2 | | | |
| Article 2.42 f 1 a | Inventory and reporting of risk sources related to the workplace (Opgave van de aan een arbeidsplaats verbonden risico bronnen) | 4.1 4.2.1 4.3 & 4.3.2 | | | |
| Article 2.42 f 1.b | Evaluation of risks (<i>Evaluatie van de risico's)</i> | 4.1, 4.2.2, 4.4 & 4.5 | | | |
| Article 2.42 f 1.c | Proof that adequate measures are taken to prevent or mitigate accidents and their effect. Also proof that the workplace can be evacuated in an efficient and controlled manner in case of emergencies (Bewijs dat afdoende maateregelen zijn genomen om de ongevallen | 4.2.3, 4.5, 4.6, 4.6.3 & Part 5 | | | |
| | onder a genoemd te vermijden, uitbreiding te beperken en de Arbeidsplaats in noodsituaties op een doelmatige en beheerste wijze te kunnen evacueren) | | | | |
| Article 2.42 f 1.d | Proof that a Safety and Health Management system, as referred to in article 2.42e, that adequately complies with the rules of this Decree, relating to the safety and health protection of employees, both in normal and emergency situations, is used (Het bewijs dat er een veiligheids- en gezondheidssysteem gehanteerd wordt dat adequaat is om voorschriften bij of krachtens dit besluit die betrekking hebben op de veiligheid en de bescherming van de gezondheid van de | 2.4 2.5 Part 1 | | | |

| (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | |
|--|--|---|---------------------------|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| | werknemers, zowel in gewone situaties als in noodsituaties na te leven) | | | |
| Article 2.42 f 2 | The procedures and rules referred to in the safety and health document must be observed during the planning and implementation of the phases detailed in article 3.2, subparagraph 1 of the Decree (<i>Bij de planning en tenuitvoerlegging van alle in artikel</i> 3.2., eerste lid, tweede volzin, bedoelde fasen, worden de in het desbetreffende veiligheids- en gezondheidsdocument vermelde procedures en uitvoeringsbepalingen in acht genomen) | 1.2.12 | | |
| Article 2.42 f 3 | The individual employers responsible for the various work places must co-operate where necessary when formulating the safety and health document referred to in article 2.42, and the preparation of measures necessary to guarantee the safety and health of employees (De verschillende werkgevers die verantwoordelijk zijn voor de verschillende arbeidsplaatsen werken in voorkomend geval samen bij het opstellen van de veiigheids- en gezondheidsdocumenten, bedoeld in artikel 2.42, en het voorbereidenvan de maatregelen die nodig zijn om de veiligheid en de gezondheid van de werknemers te garanderen) | 2.2.3.4 2.2.3.5 2.3.12.1.1 2.3.12.1.2, 2.3.12.1.3 2.3.13.2 4.1.2 4.6.3 | | |
| Article 2.42 g a | Emergency training <i>(Emergency training)</i> | 2.2.4.4 2.3.3 2.3.13.2 5.3 | | |
| Article 2.42 g b | Checks on equipment which has been used during exercises (Controle op tijdens oefeningen gebruikte aparatuur) | 2.3.17 2.3.19 3.6 5.5 | | |
| Article 2.42 g c | Checks that rescue vessels are prepared to be used | 2.3.13.2 2.3.19 | | |

| (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | |
|--|--|-----------------------|---------------------------|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| | (Controle reddingsvaartuigen op gereed zijn) | 3.6 | | |
| Article 2.42 h 1 | Training in actions to be taken | 2.3.13.2 | | |
| | during emergencies | 2.2.4.4 | | |
| | (Training in handeling tijdens noodgevallen) | 2.3.3 & Part 5 5.3 | | |
| Article 2.42 h 2 | Helideck crew training | 2.3.16.2 | | |
| Article 2.42 h 3 | Competency of personnel during emergencies (Competency tijdens noodgevallen) | 2.2.4 | | |
| Article 2.42 h 4 | Training in survival techniques | 2.2.4.4 | | |
| | (Training in overlevingstechnieken) | 2.3.3 | | |
| | | 2.3.13.2 5.3 | | |
| Article 2.42 i | Employee consultation | 2.2.1.2 | | |
| | (Raadpleging en deelneming werknemers) | 2.2.3.2 | | |
| Article 2.43 | Work related medical | 2.2.3.7 | | |
| | investigations for working during nights | 2.3.7 | | |
| | during hights (Arbeidsgeneeskundig onderzoek t.a.v. nachtarbeid) | | | |
| Article 3.2 -1, -2, | General requirements with | 2.3.19 | | |
| & -3 | regard to workplaces (Algemene vereisten Arbeidsplaatsen) | 3.1, 3.2 | | |
| Article 3.4.1 - 4 | Electrical installations | 3.4.1 | A3.14 | |
| | (Elektrische installaties) | 4.3.2 | A3.15 | |
| Article 3.5 .1 | Competent management with respect to the electrical installations (Deskundige leiding t.a.v. Elektrische Installaties) | 2.2.4 | | |
| Article 3.6 1, 2 | Escape ways and emergency | 3.5.6 | A 2 04 | |
| / IIIIII 0.0 1, Z | exits | 3.6 | A3.21 A3.22 | |
| | (Vluchtwegen en nooduitgangen) | 5.5 | A3.22 | |
| Article 3.7 1 - 6 | Safe use of Escapes and | 3.5.6 | A3.18 | |
| | emergency exits | 3.6 | /10.10 | |
| | (Veilig gebruik noodwegen en nooduitgangen) | 5.5 | | |
| Article 3.8 1 - 4 | Fire alarms and fire fighting | 3.5.2, 3.5.4, | A3.19 | |
| | (Brand melding en brandbestrijding) | 3.5.5 | A3.20 | |
| Article 3.9 | Emergency lighting | 3.4.7 | | |

| (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | |
|--|---|--------------------------|---------------------------|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| | (Noodverlichting) | | | |
| Article 3.10 | Rescue of persons in the sea (Redding van drenkelingen) | Part 5 | A3.23 | |
| Article 3.11 1 - 4 | Requirements regarding the organisation of the workplace (Inrichtingseisen) | 2.3.5 | | |
| Article 3.15 | Identification of Hazardous Areas | 2.3.17 3.5.1 | A3.16 | |
| Article 3.16 | <i>(Markering gevaarlijke plaatsen)</i> Fall Prevention <i>(Voorkomen valgevaar)</i> | 2.3.5 & Part 4 | | |
| Article 3.17 | Prevention of danger caused by moving objects (Voorkomen gevaar van bewegende voorwerpen) | 2.3.5 & 2.3.15 | | |
| Article 3.20 1 | Recreation rooms (Ontspanningsruimten) | 3.7 | | |
| Article 3.20 2 | Protection of non smokers (Bescherming niet rokers) | 2.2.3.6 & 3.7 | | |
| Article 3.21 | Cabins to be used by persons of equal gender (Nachtverblijven / voor personen zelfde geslacht) | 2.2.3.6 & 3.7 | | |
| Article 3.22 | Changing rooms <i>(Kleedruimten)</i> | 2.2.3.6, Part 3 & 3.7 | | |
| Article 3.23 | Areas for Showers and washing (Wasgelegenheden en douche ruimten) | 2.2.3.6, Part 3 & 3.7 | | |
| Article 3.24 | Toilettes (Toiletten, urinoirs en wasbakken) | 2.2.3.6, Part 3 & 3.7 | | |
| Article 3.25 1 - 6 | First Aid <i>(Eerste-hulpposten)</i> | 2.2.3.7 5.4.1 | | |
| Article 3.33, 1 / 2 | Written induction (Schriftelijke voorlichting) | 2.2.4.5 | | |
| Article 3.34 | Danger of suffocation, asyphixion (Gevaar verstikking bedwelming) | 2.3 & 3.5 | | |
| Article 3.35 | Resuscitation equipment (Reanimatie apparatuur) | 2.2.3.7 | | |

| (Arbeidsomstandighedenwet 1998 - Revisie 2005) | | | | |
|--|---|---|-----------------------------|--|
| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| Article 3.36 | Prevention and fighting of fire Beperken en bestrijden van brand | 3.5.2, 3.5.4 & 3.5.5 | A3.19 A3.20 | |
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| Article 3.37 I 1 / 2 / 3 | Transportation <i>(Vervoer)</i> | 2.3.16.2 & 4.3.2 | | |
| Article 3.37 m | Safety Equipment maintenance (Onderhoud veiligheids apparatuur) | 2.3.19 | | |
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| Article | Requirement | HSE Case Reference | Other Relevant Article | |
| Article 3.37 y | Safety and Stability (Veiligheid en Stabiliteit) | 3.2.3 & 3.2.4 | | |
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| Article | Requirement | HSE Case Reference | Other Relevant Article | |
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| | risk inventory and evaluation | 3.4.9 | | |
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| Article 5.5 | Information on manual | 2.2.4.5 | | |
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| Article 7.15 | Stopping of equipment (Stoppen van Arbeidsmiddelen) | 3.3 3.4 | |
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| | heftrucks) | | | |
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|---|---|-----------------------|---------------------------|
| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Article 8.2 | Selection of Personal Protective Equipment (PPE) <i>(Keuze PPE)</i> | 2.3 | |
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| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Chapter 3 Article 3.2 | Requires companies to provide a list of definitions covering terms used. | Appendix 2 | |
| Chapter 3 Article 3.6.1c & d | Requires the manager of a mining or any other company to provide a safety and health document for each mobile mining installation | Parts 1 to 6 | |
| Chapter 3 Article 3.8.2a | Requires a "Detailed Design, Start-up and Operation Safety and Health Document" for each mobile mining installation first entering The Netherlands | Parts 1 to 6 | |
| Chapter 3 Article 3.8.2b | Requires an "Addendum Operations Safety and Health Document" for each mobile mining installation, within five years of a previous submission | Parts 1 to 6 | |
| Chapter 3 Article 3.8.2c | Requires a "Addendum Major Alterations, Modification or Extensions Safety and Health Document" for each mobile mining installation, after major modification or changes to the installation have been made that alter the risk situation | Parts 1 to 6 | |
| Chapter 3 Article 3.9a | Requires companies to provide a clear and precise description of the mobile mining installation and activities performed thereon. | Part 3, Part 4 | Report to Industry Section 4.2 – Factual Information & Section 5.0 – Factual Information |

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| Article | Requirement | HSE Case Reference | Other Relevant Article |
|--|---|---|--|
| Chapter 3 Article 3.9b & Attachment IIIA | Requires companies to provide drawings, diagrams, plans and other relevant graphical information to compliment descriptions made | Part 3 | Report to Industry Section 4.2 – Factual Information & Section 5.0 – Factual Information A3 |
| Chapter 3 Article 3.9c & Attachment IIIB | Requires companies to provide a fire fighting / emergency plan for each mobile mining installation | 2.3.3, 3.5 & Part 5 | Station Bill, Emergency Response Plan |
| Chapter 3 Article 3.9e | Provide a list of company acceptance criteria | 4.4.2 & 4.5.2 | Report to Industry Section 4.2 – Risk Identification & Section 5.0 – Risk Identification |
| Chapter 3 Article 3.9f & Attachment IIID | List of all identified risks and their assessment / evaluation | 4.2, 4.3, 4.3.2, 4.4, 4.5, 4.6 & 4.7 | Report to Industry Section 4.2 – Risk Identification & 5.0 – Risk Identification |
| Chapter 3 Article 3.9g | A specification of the sources used for evaluating the risks | 4.1 & 4.2 | Report to Industry 4.2 & 5.0 |
| Chapter 3 Article 3.9h | Requires a review of the effectiveness and suitability of the HS&E management system | 2.4, 2.5 | |
| Chapter 3 Article 3.9i & j | A list of the risk reduction measures, including a summary of all the research conducted in this framework | 4.6 | Report to Industry 4.2 |
| Chapter 3 Article 3.9k | Details of performance standards for all protective and critical systems | 2.3.14, 2.3.19 2.4, 2.4.6, 3.1.5, 4.4, 4.5 4.1 & 4.8.1 | Report to Industry 4.2, 5.0 |
| Chapter 3 Article 3.9I | Details of the environmental and functional boundaries within which the equipment and control systems of the mobile mining installation can function normally | 3.2.1 | |
| Chapter 3 Article 3.9m | Provide a remedial action plan with time schedule | 1.2.7 | |
| Chapter 3 Article 3.9n | Compare identified risks for compliance with their stated acceptance criteria | 4.5 | Report to Industry Section 5.0 – Risk Evaluation |
| Chapter 3 Article 3.90 | Testing the performance of a mobile installation, or its components, of equipment and control systems, with respect to the performance standards | 6.4 | |

(Arbeidsomstandighedenwet 1998 - Revisie 2005)

| (Arbeidsomstandigi | nedenwet 1998 - Revisie 2005) | | |
|---|---|-----------------------|------------------------------------|
| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Chapter 3 Article 3.9p | A written declaration from the Managers of the relevant Drilling Contractor that the risks at least fall within their previously established acceptance criteria and performance standards | 1.2.12 | |
| Chapter 3 Article 3.11 | Submission of Data | 1.2.5 | A.4.2 Introduction page viii |
| Chapter 3 Article 3.13 Clause 1 & 2 | The managers must regularly and systematically assess compliance with and effectiveness of a Safety and Health Document | 2.5 | Report to Industry 5.3 |
| Chapter 3 Article 3.13 Clause 3 | If the results of the assessment referred to in Chapter 3 Art. 9.2, deem this necessary, the Managers must revise the Safety & Health Document. | 1.2.5 | Report to Industry 5.2 |
| Chapter 3 Article 3.14 | Emergency control plan | 2.3.3 & 5.1.3 | |

Other Relevant Information

| Report to Industry 4.2 & 5.3 | A justification for any assumptions, conclusions and decisions made. | 4.6 |
|---------------------------------|--|----------------------------|
| Report to Industry 4.2 & 5.5 | Assessment and listing of the scenarios developed from escape, evacuation and rescue analysis | 4.5.3, 5.1.3 |
| Report to Industry 5.6 | The process by which risks have been analysed (operational activities and critical tasks) | 4.1, 4.2, 4.3, 4.4 &4.5 |
| Report to Industry 4.2 | Determine the degree of compliance with the stated acceptance criteria | 4.5 & 4.6 |
| Report to Industry 4.2 & 5.4 | Details of all key items, critical or protective systems | Part 3, 4.6.3 |
| Report to Industry 4.2 | The process by which the performance standards of such key items, critical or protective systems, has been verified | 2.4, 4.8.3 & 6.2 |

(Arbeidsomstandighedenwet 1998 - Revisie 2005)

| (Arbeidsomstandigh | edenwet 1998 - Revisie 2005) | | |
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| Article | Requirement | HSE Case Reference | Other Relevant Article |
| Report to Industry 2.0, 4.2 & 5.1 | Risks to personnel have been eliminated or reduced to a level 'As Low As Reasonably Practicable' | 4.5 | |
| Report to Industry 2.0 | Advances in technology and technical knowledge are adopted to improve existing situation | 1.2.6 | |
| Report to Industry 4.2 & 5.2 | A remedial action plan with priorities, dates and strategy for implementation | 1.2.7 | |
| Report to Industry 4.2 & 5.1 | A detailed assessment of the review, to determine the adequacy, appropriateness and effectiveness of the management system | 2.5.1 | |
| Report to Industry 4.2 | Details of all software measures, appropriate or necessary to control risks | 4.6 | |
| Report to Industry 4.2 | Details of the various independent, 2nd party and internal verification schemes in place and the frequency and type of examination selected for each safety critical element | 2.4 & Part 6 | |
| Report to Industry 4.2 | Details of the verification scheme in place to monitor compliance with legislation and the safety and health document | 2.4 & Part 6 | |

A4.3 DENMARK

Regulator:

Ministry of Climate, Energy and Building **Danish Energy Agency (DEA)** 44 Amaliegade 1256 Copenhagen K Denmark

Telephone: +45 3392 6700 Fax: +45 3311 4743 e-mail: <u>ens@ens.dk</u> Web-site; <u>www.ens.dk</u>

HSE Case Submission Requirements:

For MODU's entering the Danish sector, the operator has the responsibility for a health and safety case (H&S Case), covering major hazards, occupational health and safety hazards and other health conditions, be submitted to the DEA as part of the documentation needed for the application for an operation permit. An environmental case is not required. However, an environmental emergency response plan for oil spills is required.

By 'operator' is understood the company appointed by the licensee to execute activities on behalf of the licensee.

The company responsible for the daily operation of the MODU is in Danish law defined as the 'operating company' and is in most cases the drilling contractor.

The operator itself does not necessary need to submit the application; normally it is submitted by the operating company.

The validity of the operation permit cannot exceed 5 years.

The H&S Case has to be revised when safety and health conditions change significantly, e.g. by structural changes to the MODU, change of operating company, additional operations not covered by the current HSE case, etc.

Acceptance Regime:

The regulations require an operation permit granted by the DEA before any operation can commence. By granting the permit, the H&S case is regarded as accepted.

The submitted case is assessed as part of consideration of the documentation submitted with the application for an operation permit.

Furthermore, the DEA visit the MODU and assess working environment and living quarter conditions and may require improvements of these as part of the conditions for the operation permit.

The DEA charges fees for consideration of the application for the operation permit and the supervision of the H&S case.

Additional Danish Requirements

When developing an HSE Case for use in Denmark, Drilling Contractors should ensure that the following additional country specific requirements are adequately addressed and incorporated within the body of documentation submitted to the Danish Energy Authority. As these items are not addressed within Parts 1 to 6, inclusive, of this global version of the IADC HSE Case Guideline, it is important that Drilling Contractors discuss them with the DEA, prior to developing their HSE Case.

Consolidated Act no. 520 of 13 May 2013 on Safety, etc. on Offshore Installations for Exploration, Extraction and Transport of Hydrocarbons (Offshore Safety Act). Regulation Requirement Section 48 If the licensee, the operator, the operating company, contractors or employers do not have the necessary expert knowledge available to attend to the health and safety work, they shall procure external expert assistance with a view to ensuring that the health and safety risks have been identified, assessed and reduced as much as reasonably practicable. Section 50(3) Persons under the age of 18 shall not be allowed to carry out work on offshore installations. Section 51 (1)The employer shall arrange the work so as to ensure that the average weekly working hours of the employee do not exceed 48 hours including overtime, calculated over a period of reference of 12 months. Annual paid holidays and sick leave are not included in the calculation. (2) The employer shall arrange the work so as to ensure that the employees have a rest period of at least 11 consecutive hours within each 24-hour period. (3) In connection with the arrangement of the work the employer shall otherwise ensure, considering the duration of the work period, that the employee is given reasonable possibilities of rest and off-duty periods which are adjusted to the special conditions of the employees and the workplace with a view to reducing the safety and health risks connected with the work as much as reasonably practicable. Section 55(2) The employer must ensure that medical examinations of the employees before and during the employment and on examinations of occupational health, occupational hygiene or other health conditions can be carried out without any loss of income of the employees and as far as possible during working time. The expenses connected with the examinations cannot be imposed on the employees. The Minister for Climate, Energy and Building can lay down more specific rules on the distribution of these expenses between the operating company and the contractor. Executive Order no. 729 of 3 July 2009 on Management of Safety and Health on Offshore Installations, etc. with later amendments. Regulation Requirement Section 6 No financial burdens must be put on employees in connection with risk assessment and reduction as per sec. 5 (1) of Executive Order 686 Section 24 External competence *Executive Order No. 1509 of 15 December 2010 on Certain Aspects of the Organisation of Working Time on **Offshore Installations.** Regulation Requirement Sections 1-11 Daily rest periods, offshore periods, onshore leave, night work Sections 16 Employer-employee agreements on deviation from standard rest

periods

DANISH LEGISLATION (only those regulations applicable for MODU's).

| Consolidated act no. 520 of 13 May 2013 on Safety, etc. on Offshore Installations for Exploration, Extraction and Transport of Hydrocarbons. | | | |
|--|--|---------------|--|
| Regulation | Requirement | HSE Case Ref. | |
| Section 2(1) | Offshore installations that are subject to this Act shall be construed as: i) Platforms or other facilities, a) from where exploration or extraction of hydrocarbons is carried out from the subsoil below the seabed, b) used for accommodation of persons employed on or at the facilities mentioned in a) above, or c) used in connection with transport of hydrocarbons and other substances and materials through pipelines between the platforms and facilities mentioned in a) above or between these and onshore installations. ii) Facilities used for storage and offloading of hydrocarbons produced by a facility mentioned in (i)(a) and which is permanently attached to such a facility. | Definition | |
| Section 2(2) | Vessels are not covered by the definition in subsection (1) except for drill ships and floating production, storage and offloading units, cf. however section 3(3), (4) and (5). | Definition | |
| Section 2(3) | A mobile offshore installation shall be construed as any offshore installation that can be moved from one position to another by moving or towage and which is intended to be used on various positions during its lifetime. | Definition | |
| Section 3(1) | This Act shall apply to offshore installations situated in Danish territorial waters or on the Danish continental shelf and to fixed offshore installations that are planned to be used in these areas. | Application | |
| Section 4(1) | Licensee shall be construed as the company or group of companies that have permission for exploration and production (extraction) of hydrocarbons or use of the subsoil for storage or other purposes pursuant to the Act on the Use of Denmark's Subsoil. For pipelines or offshore installations where there is no licensee as referred to in the first sentence hereof, the owner of the pipeline or the offshore installation shall be considered licensee. | Definition | |
| Section 4(2) | Operator shall be construed as the company that, on behalf of the licensee, carries out the activities as the licensee has obtained a permit to perform pursuant to Act on the Use of Denmark's Subsoil including transport through pipelines. | Definition | |
| Section 4(3) | Operating company shall be construed as the company that is responsible for the day-to-day operation of an offshore installation, a pipeline, cf. section 3(2), or a | Definition | |
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| | vessel or other facilities, cf. section 3(5). For vessels and facilities covered by section 3(3) and (4), the operating company shall be construed as the company that is responsible for the day-to-day operation of the offshore installation on which the persons accommodated on the vessel or facility are working. | |
|---------------|---|------------------------------|
| Section 4(4) | Contractor shall be construed as the company carrying out work for another company. | Definition |
| Section 4(5) | Employer shall be construed as the company that is authorised to instruct the employees who carry out work on offshore installations. | Definition |
| Section 4(6) | Company manager shall be construed as any person who by virtue of his position participates in the ordinary, general management of the company. | Definition |
| Section 4(7) | Supervisor shall be construed as any person whose work solely or essentially consists of managing or supervising the work on behalf of his employer in his company or part thereof. | Definition |
| Section 4(8) | Offshore installation manager shall be construed as the supervisor who, on behalf of the operating company, is in charge of the day-to-day operation of an offshore installation. | Definition |
| Section 8(1) | On manned offshore installations the operating company shall appoint an offshore installation manager. | 2.2.1, 2.2.2 |
| Section 8(2) | The operating company shall ensure that the necessary safety and health instructions are given to contractors working for the operating company. Furthermore, the operating company shall ensure that supervision is carried out as to whether these companies plan and carry out their work in accordance with the requirements of the legislation and as to whether the safety and health risks have been identified, assessed and reduced as much as reasonably practicable. | 2.2.2.3, 2.2.3.5, 2.2.4.2 |
| Section 8(3) | The operating company shall ensure that work to promote safety and health, which is carried out by several contractors on the offshore installation, is co- ordinated and that the offshore installation manager can fulfil the special duties that rest with him. | 2.3.1, 2.3.5, 2.3.9 |
| Section 8(4) | The operating company shall ensure that safety and health risks on the offshore installation have been identified, assessed and reduced as much as reasonably practicable before the installation commences operation. | 2.3.1, 2.3.12, 4 |
| Section 8(5) | The operating company shall ensure that equipment, before put into service, fulfils existing legislation. | 2.3 |
| Section 8(6) | The operating company shall ensure that health risks in connection with use of substances and materials have been identified assessed and reduced as much as reasonably practicable. | 2.3.1, 4 |
| Section 10(1) | The employer shall ensure that safety and health risks connected with the work have been identified, assessed and reduced as much as reasonably practicable. | 2.3.1, 4 |

| HSE Case Guidelines | Appendix 4 | |
|---------------------|--|---------|
| Section 10(2) | The employer shall ensure that supervision is carried out as to whether the risks referred to in subsection (1) have been identified, assessed and reduced as much as reasonably practicable. | 2.2.2 |
| Section 10(3) | The employer shall inform his employees of the safety and health risks that may be connected with their work. Furthermore, the employer shall ensure that his employees receive the necessary training and instructions in performing their work so as to identify, assess and reduce the risks as much as reasonably practicable. | 2.2.2 |
| Section 10(4) | If conditions speak in favour of this, the employer shall make sure that surveys, tests and inspections, possibly by experts, are carried out to find out whether the duties referred to in subsection (1) have been fulfilled. | 2.4 |
| Section 10(5) | If there is more than one employer on the same offshore installations, these employers shall co-operate with each other on conditions that are important to safety and health. This co-operation shall be established by the operating company, cf. section 8(3). | 2.2.2 |
| Section 10(6) | The provisions in subsections (1)-(5) on the duties of the employer shall also apply to company managers. | 2.2.2.1 |
| Section 11(1) | The offshore installation manager shall be overall responsible for the safety and health conditions on the offshore installation and ensure that the installation is operated in accordance with existing legislation. | 2.2.2 |
| Section 11(2) | The offshore installation manager shall ensure that safety and health risks in connection with the activities on the installation have been identified, assessed and reduced as much as reasonably practicable. | 2.2.2 |
| Section 11(3) | The offshore installation manager shall ensure that operation, maintenance and changes of the installation take place in accordance with the management system mentioned in section 20 below. | 2.2.2 |
| Section 11(4) | If the offshore installation manager is informed of conditions that imply a risk of accidents or illness, he shall make sure that such risk is removed or reduced. | 2.2.2 |
| Section 12(1) | Each supervisor shall assist in identifying, assessing and reducing safety and health risks in connection with the work as much as reasonably practicable within his own work area. The supervisor shall ensure that measures taken to reduce such safety and health risks have the desired effect. | 2.2.2 |
| Section 12(2) | If the supervisor is informed of conditions that imply a risk of accidents or illness, the supervisor shall ensure that this risk is removed or reduced. If the risk cannot be removed or reduced by intervention on site, the offshore installation manager shall be informed of this immediately. | 2.2.2 |
| Section 12(3) | The supervisor shall participate in the co-operation on safety and health, cf. section 46 below. | 2.2.2 |

| TIGE Case Guidelines | | |
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| Section 13(1) | The employees shall participate in the co-operation on safety and health, cf. section 46 below. | 2.2.2.3 |
| | Furthermore, the employees shall assist in identifying, assessing and reducing the safety and health risks as much as reasonably practicable within their own work area, and ensure that measures taken to reduce such safety and health risks have the desired effect. | |
| Section 13(2) | If the employees are informed of conditions that imply a risk of accidents or illness, which they cannot correct themselves, they shall inform their supervisor, offshore installation manager or the employee who represent them in safety and health matters. | 2.2.2.3 |
| Section 13(3) | An employee shall be entitled to leave his workplace or a hazardous area in case of a serious or immediate danger that cannot be avoided. | 2.2.2.3 |
| Section 13(4) | The employee shall not be subject to a reduction of his conditions of employment due to the fact that the employee leaves his workplace or a hazardous area, cf. subsection (3). | 2.2.2.3 |
| Section 13(5) | Employees whose rights are infringed pursuant to subsection (4) can be awarded compensation. | 2.2.2.3 |
| Section 14(1) | The employer shall ensure that an employee in consideration of his knowledge and access to work equipment can take appropriate measures himself with a view to avoiding consequences of a serious and immediate danger of own or others' safety when it is not possible to contact the supervisor or the offshore installation manager. | 2.2.2, 2.2.4 |
| Section 14(2) | The employee shall not be subject to a reduction of his employment conditions due to the fact that the employee has initiated measures pursuant to subsection (1), unless the employee in that connection has acted intentionally or grossly negligent. | 2.2.2.3 |
| Section 14(3) | Employees whose rights have been infringed pursuant to subsection (2) can be awarded compensation. | 2.2.2.3 |
| Section 15 | The provisions in section 13(3)-(5) and section 14 shall not apply if a collective agreement gives an employee similar or better rights. | 2.2.2 |
| Section 16 | All persons on board an offshore installation shall conform to the procedures that are determined for work and stay on the installation and respect the measures taken concerning health and safety matters. | 2.2.2.3 |
| Section 18 | (1) Suppliers, etc. transferring or handing over machines, machine parts, containers, prefabricated structures, apparatuses, tools, other equipment or substances and materials for use on the installation shall ensure that the equipment as well as substances and materials conform to existing legislation on arrangement, packaging and labelling when handed over. Furthermore, suppliers, etc. transferring or handing over shall ensure that data sheets as well as instructions in the use of the equipment or substances and materials and in maintenance, transport | 2.2.2, 3 |

and installation of the equipment are included on delivery and conform to existing legislation as regards health and safety matters.

(2) If equipment is made for use on an offshore installation according to the recipient's written, detailed instructions, the duties pursuant to subsection (1) shall rest with the recipient.

(3) If machines, machine parts, containers, prefabricated structures, apparatuses, tools, other equipment or substances and materials are delivered to an offshore installation from a supplier outside the EU, the duties pursuant to subsection (1) shall rest with the recipient.
(4) The person inviting tenders for services shall ensure when preparing his tender documents that health and safety in connection with performance of the work are considered. Furthermore, the person inviting tenders shall ensure that the tender documents contain relevant information about special, essential health and safety matters connected with the performance of the work with a view to the person performing the task becoming acquainted with this.

(5) The person inviting tenders shall otherwise assist in ensuring that the task put up for tender can be performed justifiably in terms of health and safety by the employer who has been awarded the contract.

- Section 20(1) The operating company shall establish and maintain a management system for safety and health, which ensures and documents that offshore installations, their condition, operation and maintenance as well as the performance of the work conform to the safety and health requirements laid down in or pursuant to this Act.
- Section 20(2) The management system shall be based on recognised norms and standards for management systems or other similar systems and shall be established before planning or dismantling of the installation is commenced.
- Section 20(3) The operating company shall ensure supervision of compliance with the management system.
- Section 21 (1)Independent verification of the installation, parts thereof or its equipment fulfilling requirements laid down in or pursuant to this Act can partially replace the systems mentioned in sections 19 and 20.

(2) Such verification shall be made by experts recognised by the supervisory body.

Section 24 (1)The operating company shall ensure that a safety and 1-6 health case is prepared for a mobile offshore installation which, as a minimum, includes: i) Identification of the risks that are connected with the

offshore installation, including any activity in connection with the offshore installation and which may have serious consequences for the safety and health of the employees.

ii) Assessment of the risks mentioned in i).

iii) Particulars to demonstrate that the risks mentioned in

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2.2.2, 2.4, 2.5, 6

2.3, 3.1.2

| | i) have been reduced as much as reasonably practicable, | |
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| | including that the maximum and minimum manning for operation of the installation have been determined and that an efficient and controlled evacuation of the offshore installation can take place in critical situations. | |
| | iv) Particulars to demonstrate that the management system, cf. section 20, ensures and documents that the requirements in this Act and in rules laid down pursuant to this Act are complied with in normal as well as critical situations. | |
| | (2) The safety and health case shall be prepared before the offshore installation is put into operation. | |
| Section 25(1) | During operation of an offshore installation, the operating company shall ensure that the health and safety case is updated in case of changes of the offshore installation, its layout, equipment or operational conditions, where these changes have impact on the risk of work related injuries. | 2.3.2, 1-6 |
| Section 25(3) | The health and safety case shall be available on the offshore installation and be accessible to the management of the installation and its personnel and to the supervising authority. | 2.2.1.1 |
| Section 33(3) | In connection with planning of changes to a mobile offshore installation, the operating company shall ensure that the safety and health risks connected with the change have been identified, assessed and reduced as much as reasonably practicable. | 2.3.1, 4 |
| Section 34(1) | The operating company shall in connection with operation of offshore installations ensure that the safety and health risks connected with the activities on the offshore installation and all activities connected with the installations have been identified, assessed and reduced as much as reasonably practicable. | 2.3.1, 4 |
| Section 34(2) | The operating company shall constantly seek to improve the safety and health level through continued reduction of the safety and health risks mentioned in subsection (1). | 2.5 |
| Section 35 | The individual employer shall, before the work is commenced, ensure that the safety and health risks in connection with the performance of the work have been identified, assessed and reduced as much as reasonably practicable. | 2.2.2.3, 2.3.1 |
| Section 36 | The operating company shall ensure that the health risks on the installation, which are not related to the performance of the work and arrangement of workplaces have been identified, assessed and reduced as much as reasonably practicable. | 2.3.1, 3.4.4, 3.4.5, 3.7, 4.3.2 |
| Section 38(3) | The accommodation facilities on fixed and mobile offshore installations must be adapted to the number of persons, who are expected to stay on the installation. Furthermore, the layout of the facilities must be so that the employees have access to undisturbed rest and restoration so that they can perform their duties in a | 3.7 |
| lssue 3.6 – 1 Janua | | A4-48 |

secure manner.

| | secure manner. | |
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| Section 39 | (1) On permanently manned offshore installations suitable treatment rooms shall be established so as to ensure that sick and injured persons can receive the necessary treatment before they, if required, are transported ashore to a hospital or the like. (2) Access routes on the offshore installation shall be | 2.2.3.7 |
| | designed so that transport of sick and injured persons on stretchers to treatment rooms and evacuation sites can take place in an efficient manner. | |
| Section 40(1) | An offshore installation shall be provided with equipment necessary for fulfilment of the purpose of the installation. The equipment shall be placed, arranged and be able to be used so as to reduce the safety and health risks after identification and assessment as much as reasonably practicable. | 2.3.1, 3 |
| Section 41 | Current maintenance of the offshore installation shall take place so as to ensure that the installation and its equipment fulfil the safety and health requirements laid down in this Act or in rules laid down in pursuance thereof. | 2.3.19 |
| Section 42 | Recognised norms and standards that are important to health and safety shall be followed in connection with the construction, layout and equipment of the offshore installation. Norms and standards according to subsection (1) may be deviated from in cases where it is convenient for obtaining a higher level of health and safety or to be in keeping with the technical development. It is presumed by the deviation that health and safety risks are reduced as much as reasonably practicable. | 2.3 |
| Section 45 | (1)For all offshore installations an emergency response shall be established to meet the consequences of accidents. (2) Before an offshore installation is put into use, a plan for the emergency response mentioned in subsection (1) shall be made. The plan shall be co-ordinated with the authorities' rescue and combating measures, cf. section 59 below, and to the greatest possible extent with emergency response plans prepared for other offshore installations. (3) With a view to ensuring efficient rescue and combating efforts, the supervising authorities can order changes to the plan mentioned in subsection (2). (4) Operating companies producing hydrocarbons, and operating companies and other companies carrying on transport of oil or natural gas through pipelines between two or more offshore installations and land-based installations shall make the necessary planning and take the necessary measures to secure own offshore installations, pipelines, etc. as well as the natural gas and oil supply, respectively, in emergency situations and other extraordinary situations. | 5 |

| Section 46 | (1)The operating company shall ensure that the safety and health activities are organised in collaboration with the employees. (2) The employees or their representatives shall be involved in the planning of the performance of the work and planning of changes to the offshore installations as regards safety and health matters, including the related update of the safety and health case, cf. section 25(1) and (2) above. (3) The operating company shall defray the expenses connected with tasks performed by the employees in connection with the collaboration pursuant to subsection (1), including expenses connected with the related training. | 2.2.1.2, 4.2.1, 4.7, 4.8.1, 4.8.2 |
|---------------|--|--------------------------------------|
| Section 47 | On any permanently manned offshore installation the operating company shall ensure that personnel with the necessary health training and competence form part of the manning with a view to attending to preventive and therapeutic health tasks. | 2.2.3.7 |
| Section 50(1) | The operating company shall ensure that the employees, before the work is commenced, are sufficiently trained to attend to the tasks according to the emergency response plan of the installation, cf. section 45(2), and to attend to own safety in an emergency situation. | 5.3 |
| Section 50(2) | The employer shall ensure that the employees are adequately instructed, and that they have the competence ensuring that their duties on the offshore installation can be performed fully justifiably in terms of safety and health, and that there is documentation available for this competence. | 2.2.4 |
| Section 53 | The employer shall ensure that safety and health risks connected with the performance of the work are identified, assessed and reduced as much as reasonably practicable and that threshold limit values established in rules laid down pursuant to this Act are complied with. | 2.3.1, 4 |
| Section 54 | (1) Recognised norms and standards which are important in terms of safety and health to the performance of the work shall be observed. (2) Norms and standards according to subsection (1) may be deviated from in cases where it is convenient for obtaining a higher level of health and safety or to be in keeping with the technical development. It is presumed by the deviation that health and safety risks are reduced as much as reasonably practicable. | 2.3 |

| Regulation | Requirement | HSE Case Ref. |
|----------------|---|--|
| Section 2 | Definitions | N/A |
| Section 3-4 | Emergency response plan. Contents and updating. | 2.3.3, Fig 3.0.1, 3.5.6, 3.6, 4.3.3, 5, A3.21 |
| Section 6 | POB list | 2.3.16.1 |
| Sections 20-24 | Assembly points and POB list with assignments | 2.3.16.1, 5.3.3 |
| Sections 9-18 | Safety Training (Basic and special functions courses) | 2.2.4.4, 2.3.12, 5.3 |
| Sections 19-22 | Drills | 2.3.3, 2.3.13.2, 5.3.2 |
| Section 23 | General provisions on life saving appliances | 3.6, 5.3.3, 5.5.2 |
| Section 25 (2) | Specific provisions on life saving appliances on mobile offshore installations. | 3.6, 5.3.3, 5.5.2 |
| Sections 26 | Specific provisions on life saving appliances in combined operations of mobile and fixed installations. | 3.6, 5.3.3, 5.5.2 |
| Sections 27-29 | Stand-by vessels | 3.6 |
| Section 30 | Health Service | 2.2.3.7, 4.6.3, 5.2.1, 5.3.1 |
| Section 30 (4) | First aid staff | 2.2.3.7 |
| Sections 31-37 | Offshore medic | 2.2.3.7, 4.6.3, 5.2.1, 5.3.1 |
| Section 38 | Drug supply | 2.2.3.7 |
| Section 39 | Breathing and resuscitation equipment and first aid equipment. | 2.2.3.7, 5.4.1 |

Executive Order No. 798 of 11 July 2012 on Emergency Response, etc. on Offshore Installations, etc.

Executive Order no. 729 of 3 July 2009 on Management of Safety and Health on Offshore Installations, etc. with later amendments.

| Regulation | Requirement | HSE Case Ref. |
|---------------|--|--|
| Section 2 | Definitions | N/A |
| Sections 3-4 | Responsibilities and duties of operating company, contractor and employer. | 2.2.2 |
| Section 5 (1) | General provision on risk assessment and risk reduction to ALARP | 2.0.4, 2.3.1, 2.3.12.1.2, 2.3.12.1.3, 2.3.15, 4. |
| Section 5 (3) | Continuous improvement of health and safety | 1.2.6, 4.3.7, 4.8.4 |
| Section 7 | Documentation of risk assessment and reduction to ALARP | 2.2.1.1, 4. |
| Section 8 | Workforce involvement in risk assessment | 2.0.5, 2.2.1.2, 4.8 |

| HSE Case Guidelines Appendix 4 | | |
|--------------------------------|---|---|
| | and reduction | |
| Section 9 (1) | Major accident risk assessment. Recognised methods. | 4. |
| Section 9 (3) | Major accident risk assessment. Acceptance criteria for individual risk and societal risk | 4.5.2 |
| Section 9 (4) | Major accident risk reduction. ALARP requirement | 4. |
| Section 10 | Major accident risk reduction. Prevention principles. | 4.6.2 |
| Sections 11 (2)-(4) | Major accident risk assessment Safety Critical Elements | 3.1.5, 4. |
| Section 12 | Major accident risk assessment. Update of risk assessment. | 1.2.5 |
| Section 14 | Other risks. Risk assessment and reduction. Preventive measures. | 4. (other workplace hazards) |
| Section 15 | Other risks. Risk assessment for temporary work. Preventive measures. | 4. (other workplace hazards) |
| Section 16 | Other risks. Contents of risk assessment. Workplace mapping. Action plan for reduction to ALARP. | 4. (other workplace hazards) |
| Section 17 | Statutory standards and limit values are highest acceptable risks, cf. sec. 2 | 4. (other workplace hazards) |
| Section 18 | Specific requirements to the contents of assessment of other risks from specific agents | 2.2.3.6, 2.3.17, 3.3.2, 4.3, 4.8.1 |
| Section 19 | Other health aspects (hygiene, drinking water, etc) | 2.2.3.6 |
| Section 20 | Workforce involvement in assessment of other health aspects. | 2.0.5, 2.2.1.2 |
| Section 21 | Requirement to Evacuation analysis | Part 4 & 5 |
| Sections 22-23 | Training and Competence within the company | 2.0.5, 2.2.4, 2.3.15, 4.1, 4.2.1, 4.3, 4.6.2, 4.8.4 |
| Section 25 | Crane operator certificates | 2.2.4, 2.3.15 |
| Section 26 | Forklift driver certificates | 2.2.4 |
| Sections 27-29 | HS Management Systems | 2 |
| Section 30 | Work permits | 2.3.4 |
| Section 31 | Logs of inspections and testing | 2.2.1.1, 2.3.15, 3.2.2, 3.4.2, 3.4.9 |
| Section 32 | Bridging documents in combined operations | 2.0.5, 2.2.1 |
| Section 33 | Optional certification of management system | Introduction, 2.0.5 |
| Sections 34-36 | Independent verification of installations, equipment, etc. | 2.4.7 |
| Sections 37-39 | Health & Safety Cases | 1.2 |

| Executive Order No. 830 of 27 June 2013 on Mobile offshore installations, etc. | | |
|--|--|---------------------------|
| Regulation | Requirement | HSE Case Ref. |
| Sections 9-48 | Safe and healthy workplaces | 2.3.7, 3 and 4 |
| Section 56 | Measures to be taken to prevent, discover | 3.0, 3.5, 4.6 |
| | and combat outbreak and spreading of fire. | |
| | Fire sectioning of the installation | |
| Section 57 | Alarm systems | 3.4.6 |
| Sections 57 (1-2) | Fire detection | 3.0, 3.5, 4.6 |
| Section 57 (3) | Non-automatic fire extinguishing devices | 3.7 |
| Section 57 (4) | Emergency systems | 3.4.1 |
| Sections 64-79 | Requirements to accommodation | 2.2.3.6, 3.0, 3.5.5, 3.7, |
| | | A3.4 |
| Section 107 | Remote control systems | 3.4.6 |
| Section 111 | Alarm and communication systems | 3.4.6, 5.2, 5.3 |
| | | |

Executive Order No. 830 of 27 June 2013 on Mobile offshore installations, etc.

| Executive Order No. 398 of 15 May 2008 on the Use of Personal Protective Equipment | |
|--|--|
| on Offshore Installations. | |

| Regulation | Requirement | HSE Case Ref. |
|--------------|--|----------------------|
| All sections | Requirements to the use and maintenance of PPE | 2.3.5, 2.3.17, 5.4.1 |

Executive Order No. 1505 of 15 December 2010 on Safety and Health Activities on Mobile Offshore Installations.

| Regulation | Requirement | HSE Case Ref. |
|--------------|---|--|
| All sections | Requirements, Duties, etc. of Safety Representatives, Safety Groups and Safety Committees | 2.2.1.2, 2.2.3.2, 4.1, 4.2.1, 4.7, 4.8.2, 6.2.2 |

Executive Order No. 397 of 15 May 2008 on Work with Display Screen Equipment on Offshore Installations with later amendments.

| Regulation | Requirement | HSE Case Ref. |
|--------------|---|---------------|
| All sections | Requirements to computer workplaces, control rooms, etc | 4.2, 4.3 |

Executive Order No. 395 of 15 May 2008 on Manual Handling of Loads on Offshore Installations with later amendments.

| Regulation | Requirement | HSE Case Ref. |
|------------|-------------|---------------|
| Regulation | Requirement | |

All sections

Executive Order No. 908 of 27 September 2005 on Precautions for Prevention of the Risk of Cancer by Work with Substances and Materials with Subsequent Amendments (Applies to offshore installations pursuant to Executive Order no. 1038 of 26 August 2013 Section 77)

| Regulation | Requirement | HSE Case Ref. |
|--------------|---|---------------|
| All sections | Handling, etc. of Carcinogenic substances | 4.3 |
| Section 26 | Special training requirements | 2.2.4 |

Executive Order No. 672 of 16 June 2010 on Safety Signs and other Form of Signalling on Offshore Installations with later amendments

| Regulation | Requirement | HSE Case Ref. |
|--------------|---|---------------|
| All sections | Requirements to signs, signalling, etc. | 2.3, 3 |

Executive Order No. 1482 of 14 December 2010 on Operation, etc. of Offshore installations, etc. with later amendments

| Regulation | Requirement | HSE Case Ref. |
|---------------|--|-----------------------|
| Section 3 | Work Planning, Risk reduction to ALARP | Part 4 |
| Sections 4-9 | Safe and healthy working practices. | 2.3 |
| | Pregnant workers. | |
| Section 10-20 | Requirements for use of equipment | 2.3.19, 2.3.15, 3.4.9 |

Executive Order No. 1506 of 15 December 2010 on Occupational Health and Safety Training of Safety Groups on Offshore Installations with later amendments.

| Regulation | Requirement | HSE Case Ref. |
|--------------|--|---------------|
| All sections | Requirements for training of safety representatives, supervisors, etc. | 2.2.3.2 |

Executive Order No. 199 of 11 March 2009 on Protection from Exposure to Biological Agents on Offshore Installations with later amendments

| Regulation | Requirement | HSE Case Ref. |
|--------------|-------------------------------|-------------------|
| All sections | Use of biohazardous materials | 2.3.17, 3.4.10, 4 |

| Executive Order No. 399 of 15 May 2008 on Medical Supervision of Work with |
|--|
| Ionising Radiation on Offshore Installations with later amendments |

| Regulation | Requirement | HSE Case Ref. |
|--------------|--|-------------------|
| All sections | Requirements to medical examination of workers with a risk of exposure to radiation | 2.3.17, 3.4.10, 4 |

Executive Order No. 1508 of 15 December 2010 on Special Obligations for Producers, Suppliers and Importers of Substances and Materials for Use on Offshore Installations, etc. with later amendments (only if Drilling Contractor imports chemicals from countries outside Denmark)

| Regulation | Requirement | HSE Case Ref. |
|--------------|--|---------------|
| All Sections | Obligations for importers of chemicals | 2.3.18 |

Executive Order No. 1038 of 26 August 2013 Use of Substances and Materials on Offshore Installations etc.

| Regulation | Requirement | HSE Case Ref. |
|--------------------|--|--------------------|
| Sections 1-4, 6-42 | Use of hazardous substances and materials | 2.3.17, 3.4.10, 4 |
| Section 5 | Threshold Limit Values for substances and | 2.3.17, 3.4.10, 5 |
| | materials and assessment of use in different | |
| | working schemes than 8 hours per day | |
| Sections 43-76 | Requirements for use / handling of asbestos | 2.3.5, 2.3.17, 4.3 |
| Section 78-88 | Requirements for use/handling synthetic mineral fibre. | 2.3.5, 2.3.17, 4.3 |

Executive Order No. 1083 of 5 September 2013 on Registration and Reporting of Work Injuries, etc. Pursuant to the Act on Certain Offshore Installations.

| Regulation | Requirement | HSE Case Ref. |
|--------------|---|---------------|
| All sections | Requirement to registration and reporting of accidents, near misses and work related diseases | 2.4.2 |

Executive Order No. 394 of 15 May 2008 on Protection against Exposure to Vibrations in Relation to Work on Offshore Installations with later amendments.

| Regulation | Requirement | HSE Case Ref. |
|--------------|---------------------------|---------------|
| All sections | Vibrations risk reduction | 4. |

Executive Order No. 602 of 24 June 2009 on Protection against Exposure to Noise in Relation to Work on Offshore Installations with later amendments

| Regulation | Requirement | HSE Case Ref. |
|--------------|----------------------|---------------|
| All sections | Noise risk reduction | 4. |

A4.4 ITALY

| Regulator: | Ufficio Nazionale Minerario per gli Idrocarburi e la Geotermia (Mining National Office for Hydrocarbons and Geothermal) |
|------------|--|
| Location: | Via Molise, 2 00187 Roma |
| | Italy |
| Telephone: | +39 6 4705 2859 |
| Fax: | +39 6 4788 7802 |
| E-mail: | franco.terlizzese@sviluppoeconomico.gov.it |
| Web-site: | http://unmig.sviluppoeconomico.gov.it/unmig/unmig.htm |

Safety and Health Document Submission Requirements and Acceptance

The Safety Case in Italy is called Safety and Health Document. The legislative decree n.624 issued on November 25th,1996 is the main legal basis for this document and describes the requirements concerning handling and content of the document. The Safety and Health Document is comparable with the Safety Case from other EU Countries. The Safety and Health Document has to be prepared before the work on site begins. The Safety and Health Document must be submitted to the territorial section of UNMIG before each authorisation for drilling or production activities, but no approval of the document is necessary. The document has to be kept also on the installation. In the case of an accident or incident this document is the legal basis to assess responsibilities of the holders of the exploration or exploitation licence, the on site assistants and of the workers. The assessment is made by the inspectors of the UNMIG.

The same provisions apply for offshore and land drilling.

Acceptance Regime:

See above.

Other Information:

Safety and Health Documents have to demonstrate compliance with all legislation applicable to the oil and gas industries. These documents must include an objective assessment of the adequacy and applicability of a Drilling Contractor's management system to effectively control risks and manage operational and maintenance activities.

Any revisions that make a material change to the current safety case must be submitted to the regulator for acceptance.

Combined operations (simultaneous drilling & production on the same site) must be addressed in a specific Safety Cases.

The Safety and Health Documents must:

- provide enough information to show that all the kinds of risks have been considered and evaluated
- show that hazards with the potential to cause a major accident have been identified and that the risks arising from those hazards are, or will be, adequately controlled.
- demonstrate that the level of risk exposures of the workers are acceptable
- establish clearly roles and responsibilities, including those of the contractors and subcontractors
- show the compliance of the installations and of the equipments to the safety rules

- show that the installation owner's management system is adequate to ensure compliance with the law in respect of matters within his control
- ensure the satisfactory management of arrangements with contractors and subcontractors;
- show that adequate arrangements for audit have been established

show that there is an effective safety management system which ensures that the organisational arrangements in place, if fully implemented, will enable the installation owner to comply with all the relevant health and safety laws

ITALIAN LEGISLATION

| Legislative Decree N ^{o.} 624, 25 th November 1996 | | | |
|--|---|------------------------------------|--|
| (Decreto Legislativo 25 novembre 1996, n. 624) HSE Case | | | |
| Article | Requirement | Ref | |
| Part 1 – General Provis | sions (Disposizioni Generali) | | |
| Section 1 – Area of Ap | plication (Campo di Applicazione) | | |
| Article 1 | Activities covered (Attivitá soggette) | NA / information only | |
| Article 2 | Definitions (<i>Definizioni</i>) | NA / information only | |
| Article 3 | Supervision by the Authorities <i>(Vigilanza)</i> | NA / information only | |
| Article 4 | Powers of Supervision (Esercizio della vigilanza) | NA / information only | |
| Article 5 | General protection measures (Misure generali di tutela) | NA / information only | |
| Section 2 – Employers | ' Obligations (Obblighi del Datore di Lavoro) | | |
| Article 6 | Safety and Health Document (Documento di sicurezza e di salute [DSS]) | Parts 1 - 6 | |
| Article 7 | Obligations <i>(Obblighi)</i> | Part 1 | |
| Article 8 | Risk Prevention and Protection Consultation (<i>Riunione di prevenzione e protezione dai rischi</i>) | 2.2.1.2, 2.2.3.2 & Part 4 | |
| Article 9 | Safety and Health Document Coordination (DSS coordinato) | 1.2.4 & 2.2 | |
| Article 10 | Safety and Health Document Contents (Contenuti del DSS) | 1.1 & 1.2.2 | |
| Article 11 | Protection from Fires, Explosions and Harmful Atmospheres (Protezione contro gli incendi, le esplosioni e le atmosfere nocive) | 2.3.4, 2.3.5, 2.3.7 & 2.3.17 | |
| Article 12 | Evacuation and Rescue Facilities (Mezzi di evacuazione e di salvataggio) | Part 5 | |
| Article 13 | Communication, Warning and Alarm Systems (Sistemi di comunicazione, di avvertimento e di allarme) | 2.3.9, 3.4.6, 3.5.2 & 3.6 | |
| Article 14 | Keeping Workers Informed (Informazione dei lavoratori) | 2.3.1 & 4.8 | |
| Article 15 | Health Surveillance (Sorveglianza sanitaria) | 2.3.7 | |

Section 3 - General Rules (Norme Generali)

| Article 16 | Permanent Advisory Commission for the prevention of accidents and workplace hygiene (Commissione Consultiva Permanente per la prevenzione degli infortuni e l'igiene del lavoro) | NA / information only |
|------------|---|-----------------------------|
| Article 17 | Modifications to article 83 of Presidential Decree n. 886 of 1979 (Modifiche all'articolo 83 del decreto del Presidente della Repubblica n. 886 del 1979) | NA / information only |
| Article 18 | Submission of Documentation (Trasmissione documentazione) | NA / information only |
| Article 19 | Organisation of the Workplace (Sistemazione dei luoghi di lavoro) | 2.2.1 & 2.2.2 |
| Article 20 | Person in Charge and Supervision (Direttore responsabile e sorvegliante - Denunce di esercizio) | 2.2.2 |
| Article 21 | Competent Workers (Lavoratori competenti) | 2.2.4 |
| Article 22 | Written Instructions (Istruzioni scritte) | 2.3.5 & 2.3.8 |
| Article 23 | Work Permits (Incarichi scritti per attivita' in situazioni pericolose) | 2.3.4 |
| Article 24 | Pregnant and Handicapped Workers (Lavoratori portatori di handicap) | 2.3.1 |
| Article 25 | Accidents and Incidents (Infortuni ed incidenti) | 2.4.2 & 2.4.3 |
| Article 26 | Accident Investigations (Inchieste sugli infortuni) | 2.4.2 |
| Article 27 | Maritime Accidents (Infortuni in mare) | 2.4.2 |
| Article 28 | Accident Statistics (Statistiche degli infortuni) | NA / information only |

Section 4 – Mechanical and Electrical Equipment and Plant (Attrezzature ed impianti Meccanici, Elettrici ed Elettromeccanici)

| Article 29 | General Measures (Misure di carattere generale) | NA / information only |
|----------------------------|---|--------------------------------|
| Article 30 | Specific Provisions (Disposizioni specifiche) | 3.2, 3.3, 3.4, 3.5 & 3.6 |
| Article 31 | Periodic Verification (Verifiche periodiche) | 2.4.6, 2.4.7 & Part 6 |
| Section 5 – Maintenance (A | Manutenzione) | |
| Article 32 | Maintenance Obligations (Obblighi di manutenzione) | 2.3.19 |
| Article 33 | Safety Equipment Maintenance (Misure generali di manutenzione del materiale di | 2.3.14, 2.3.15, |
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| | sicurezza) | 2.3.19 & Part 6 |
|--------------------------|---|--|
| Article 34 | Pressure Vessels (Recipienti a pressione) | 3.1.2, 3.1.6, 3.3.2, 3.3.3 & 3.4.3 |
| Section 6 – Technical Pr | ovisions (Disposizioni Tecniche) | |
| Article 35 | Transportation of explosives at the worksite (Sosta e trasporto degli esplosivi nel cantiere) | 2.3.17 & 3.4.9 |
| Article 36 | Use of motor vehicles for loading mine bores (Impiego di automezzi per il caricamento dei fori da mina) | 2.3.13, 2.3.15 & 3.1.7 |
| Article 37 | Emergency Routes and Exits (Vie ed uscite di emergenza) | 3.6 & 5.3.3 |
| Article 38 | Natural and Artificial Lighting (Illuminazione naturale ed artificiale) | 3.4.7 |
| Article 39 | Traffic Routes and Danger Areas (Vie di circolazione ed aree con pericolo) | 3.5.1 & 3.6 |
| Article 40 | Outdoor Workplaces (Luoghi di lavoro esterni) | 3.1.4 |
| Article 41 | Sanitary Equipment (Attrezzature igienico-sanitarie) | 3.4.5 |
| Y | Applicable Rules | 3.1 |

Part 2 – Specific Safety and Health Rules Applicable for Open Air,NA /Subterranean and Surface Extraction Activities (norme specifiche in
materia di sicurezza e di salute applicabili alle attivitá estrattive a cielo
aperto o sotterranee, nonché agli impianti pertinenti di superficie)NA /

(Norme applicabili)

Part 3 – Specific Safety and Health Rules Applicable for all Drilling Activities (norme specifiche in materia di sicurezza e di salute applicabili alle attivitá estrattive condotte mediante perforazione)

Section 1 – Common Rules *Applicable to all Land and Sea Activities* (norme comuni applicabili alle *attivitá* di terraferma ed in mare)

| Article 64 | Area of application (Campo di applicazione) | 1.2.2 & 4.2.1 |
|------------|--|--|
| Article 65 | Drilling Authorisation and Protection Systems (Autorizzazione alla perforazione e sistemi di protezione) | 2.3.12, 3.3, 3.4, 3.5, 3.6 & 3.8 |
| Article 66 | Well Control (Controllo dei pozzi) | 2.3.12 & 3.3 |
| Article 67 | Competency of Personnel Assigned to Well Control (Personale addetto) | 2.2.4 |
| Article 68 | Cementing (Cementazioni) | 3.3 |
| Article 69 | Mud Circulation (Circolazione del fango) | 3.3 |

| Article 70 | Drilling with Various Mud Fluids (Perforazioni con fluidi diversi dal fango) | 3.3 |
|------------|---|---|
| Article 71 | Drilling for Salt (Perforazioni per minerali salini) | 2.3.12 & 3.3 |
| Article 72 | Protection from Harmful Atmospheres and Explosion Risks (<i>Rivelazione delle atmosfere nocive o potenzialmente esplosive</i>) | 2.3.17, 2.3.7, 2.3.8, 3.4.9 & Part 4 |
| Article 73 | Use of Explosives during Drilling Operations (Uso di esplosivo nelle operazioni di prospezione e di perforazione) | 2.3.1, 2.3.5 & 2.3.12 |
| Article 74 | Doors and Gates (Porte e portoni) | 2.3.11, 2.3.13 & 2.3.15 |
| Article 75 | General Measures for the Freedom of Movement at the Worksite (Misure generali per la libertà di movimento nel posto di lavoro) | 2.3.13 |
| Article 76 | Simultaneous Operations (Operazioni simultanee) | 2.3.12.1 |
| Article 77 | Well Intervention (Intervento ai pozzi) | 2.3.12 |
| Article 78 | Communication during Normal and Emergency Conditions (Comunicazioni in condizioni normali e in caso di emergenza) | 2.3.9, 3.4.6 & 5.2 |
| Article 79 | Emergency Exercises (Esercitazioni di sicurezza) | 5.3 |
| | les Applicable to all Land Activities plicabili alle attivitá di terraferma) | NA / information |

information only

Section 3 – Common Rules Applicable to all Offshore Activities (norme applicabili alle attivitá a mare)

| Article 88 | Person in Charge / Platform Head (Capo piattaforma e Comandante) | 2.2.2 |
|------------|---|--|
| Article 89 | General Fire Prevention Measures (<i>Misure generali di prevenzione degli incendi</i>) | 2.3.1, 2.3.4, 2.3.5, 2.3.8, 2.3.17, 3.2, 3.3 3.5 & 3.6 |
| Article 90 | Fixed and Portable Fire Prevention Equipment (Prevenzione incendi sulle unità fisse o assimilabili) | 3.5 |
| Article 91 | Fire Fighting Rules (Norme antincendio) | 2.3.3, 5.2 & 5.3 |
| Article 92 | Modular Systems <i>(Impianti modulari)</i> | 3.3, 3.4, 3.8, 3.9 & 3.10 |
| Article 93 | Requirements for surface and seabed systems | 3.3 |

| | (Prescrizioni per gli impianti di superficie e sottomarini, |) |
|------------|--|--------------------------------|
| Article 94 | Remote Control in Emergencies (Comandi a distanza in caso di emergenza) | 3.2, 3.3, 5.1 & 5.2 |
| Article 95 | Safe Assembly Points and Muster List (Punti sicuri di raduno e liste d'appello) | 3.6 & 5.3.3 |
| Article 96 | Means of Evacuation and Rescue <i>(Evacuazione e salvataggio)</i> | 2.3.3, 2.3.13, 3.6 & 5.5 |
| Article 97 | Hyperbaric Chamber (Camera iperbarica) | 3.9 |
| Article 98 | Accommodation <i>(Alloggi)</i> | 3.7 & 5.4 |
| Article 99 | Helicopter Operations (Movimento degli elicotteri) | 2.3.16.2 |
| | | |

Section 4 – Transitional and Final Rules (norme transitorie e finali)

| Article 100 | Final Rules (Norma Finale) | NA / information only |
|-------------|---|-----------------------------|
| Article 101 | Technical Adaptation (Adeguamento tecnico) | NA / information only |
| Article 102 | Financial Provisions (<i>Disposizioni finanziarie</i>) | NA / information only |
| Article 103 | Repealed Rules (Norme soppresse) | NA / information |

Section 5 - Penalties (sanzioni)

| Article 104 | Infringements by Employers, Licence Holders, Managers and Directors (Contravvenzioni commesse dai datori di lavoro, dai titolari, dai dirigenti e dai direttori responsabili) | NA / information only |
|-------------|--|-----------------------------|
| Article 105 | Infringements by Designated Persons and Supervisors (Contravvenzioni commesse dai preposti e dai sorveglianti) | NA / information only |
| Article 106 | Administrative Violations (Violazioni amministrative) | NA / information only |
| Article 107 | Repayment of the Fines (Estinzione delle contravvenzioni) | NA |

only

A4.5 UNITED KINGDOM

Regulator: Offshore Safety Division

Health & Safety Executive

Lord Cullen House Fraser Place Aberdeen AB25 3UB United Kingdom

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Safety Case Submission Requirements:

A safety case for a MODU must be submitted to the Health and Safety Executive (the regulator) at least 3 months before entering the UK sector with the intention of being used there. Before the installation may be used in UK waters, the regulator must accept the safety case.

Where a MODU already has an accepted Safety Case, the Safety Case must be thoroughly reviewed when directed by the regulator, or in the absence of a direction, every five years from the date on which the safety case was accepted / or previous thorough review. A summary of each thorough review shall be sent to the Health & Safety Executive within 28 days of its conclusion.

Any revisions that make a material change to the current safety case must be submitted to the regulator for acceptance. Implementing a material change before the regulator has accepted the revised safety case would be a breach of the duty to follow the arrangements and procedures set out in the current (accepted) safety case. Note: - The regulator may direct a duty holder to prepare revisions to a current safety case in relation to such matters, as the regulator may notify to them.

Material change includes modification of the structure where the change may have a major negative impact on safety, or a change of owner involving significant changes to the management system. Note - A thorough review of the current safety case would be appropriate where there is a change of ownership whether or not it involves changes to the management system.

Combined operations must be addressed in all new Safety Cases. Where an existing Safety Case does not address combined operations it must be revised and sent to the Health & Safety Executive at least 6 weeks prior to commencement of operations. In any event all accepted Safety Cases must address the generic aspects of combined operations by or before October 2007.

A MODU does not require a design notification, unless it is to be converted to a production installation.

Acceptance Regime:

The regulations require that an HSE Case is "Accepted" by the Health & Safety Executive prior to operations commencing.

The Health & Safety Executive have developed a comprehensive assessment process in which Inspectors / assessors will examine, sometimes in extensive detail, elements of an HSE Case to confirm that an adequate "Case for Safety" has been made.

In event of there being any issues, shortfalls or requirements for further information, the Health & Safety Executive will, in the first instance, raise the issue informally.

If the issue cannot be resolved immediately then an Issue Note will be raised which is a formal record of concern which the Drilling Contractor must respond or there is a risk that the Case will not be accepted.

The regulator will issue a formal acceptance letter once they are satisfied with the case for safety. The date of this letter sets the anniversary date for the thorough review.

The Health & Safety Executive operates a charging regime which includes the assessment of Safety Cases by them.

A UK safety case has to:

- provide enough information to show that the required demonstrations have been made. These demonstrations are in addition to the descriptions and other details required by the relevant schedules to the Regulations;
- show that the installation owner's management system is adequate to ensure compliance with the law in respect of matters within his control; and to ensure the satisfactory management of arrangements with contractors and subcontractors;
- show that adequate arrangements for audit, and for making audit reports, have been established;
- show that there is an effective safety management system which ensures that the organisational arrangements in place, if fully implemented, will enable the installation owner to comply with all the relevant health and safety laws; and
- show that hazards with the potential to cause a major accident have been identified and that the risks arising from those hazards are, or will be, adequately controlled.

UK LEGISLATION

| Offshore Installation (Safety Case) Regulations 2005 | | | |
|--|--|--|-------------------------------|
| Regulation | Requirement | HSE Case Reference | Other Relevant Regulations |
| Reg. 1 | Citation and Commencement | N/A information only | |
| Reg. 2 | Interpretation | N/A information only | |
| Reg. 3 | Communication and storage of information by electronic means | N/A information only | |
| Reg. 4 | Application | N/A information only | |
| Reg. 5 | Duties of Licensee | N/A information only | |
| Reg. 6 | Design and relocation notifications for production installation | N/A for MODU's | |
| Reg. 7 | Safety Case for production installation | N/A for MODU's | |
| Reg. 8 | Safety Case for non-production installation :- (a)Contains the particulars specified in regulation 12 and Schedule 3 | Parts 1 to 6 inclusive | |
| | (b)Is sent to the Health and Safety Executive at least 3 months before entering relevant waters with a view to its being operated there | | |
| | (c) Has been accepted by the Health and Safety Executive | | |
| Reg. 9 | Design notification and safety case for non- production installation to be converted | Conversion not part of HSE Case guideline scope | |
| Reg. 10 | Notification of Combined Operations | 2.3.12 & 4.6.3 | |
| | (1) A duty holder for an installation which is to be involved in a combined operation shall ensure that that installation does not engage in a combined operation unless a notification containing the particulars specified in Schedule 4 (other than those already notified to the Executive pursuant to regulation 17) in respect of that combined operation is sent to the Executive at least 21 days | | |

(or such shorter period as the Executive may specify) before it is due to commence.

- (2) The requirements of paragraph (1) will be satisfied if:-
 - (a) the duty holders for every installation involved in the combined operation prepare and agree a notification containing the particulars specified in that paragraph; and
 - (b) one of them sends it to the Executive at least 21 days (or such shorter period as the Executive may specify) before it is due to commence.
- (3) Where there is a material change in any of the particulars notified pursuant to paragraph (1) prior to completion of the relevant combined operation, the duty holder shall notify the Executive of that change as soon as is practicable.
- (4) Where there is a change in the duty holder or of the installation, the duty holder shall send a notification pursuant to paragraph (1).

| Reg. 11 | Safety Case for dismantling fixed installation | N/A for MODU's |
|---------|--|----------------|
| Reg. 12 | Management of health and safety and control of major accident hazards | Part 2 |
| | The duty holder who prepares a safety case pursuant to these Regulations shall, subject to paragraphs (2) and (3), include in the safety case sufficient particulars to demonstrate that:- | |
| | (a) his management system is adequate | |

 that the relevant statutory provisions will, in respect of matters within his control, be complied with; and

to ensure:

- the satisfactory management of arrangements with contractors and sub-contractors;
- (b) he has established adequate arrangements for audit and for the making of reports thereof;
- (c) all hazards with the potential to cause a major accident have been identified; and

- (d) all major accident risks have been evaluated and measures have been, or will be, taken to control those risks to ensure that the relevant statutory provisions will be complied with.
- (2) Paragraph (1) shall only require the particulars in the safety case to demonstrate the matters referred to in that paragraph to the extent that it is reasonable to expect the duty holder to address them at the time of sending the safety case to the Executive.
- (3) In this regulation, "audit" means systematic assessment of the adequacy of the management system to achieve the purpose referred to in paragraph (1)(a) carried out by persons who are sufficiently independent of the system (but who may be employed by the duty holder) to ensure that such assessment is objective.

Reg. 13 Review of Safety Case

- A duty holder shall thoroughly review a current safety case when directed to do so by the Executive.
- (2) In the absence of a direction under paragraph (1), a duty holder shall thoroughly review a current safety case within 5 years of:-
 - (a) the date on which the Executive accepted that current safety case; and
 - (b) the date of the previous review.
- (3) A duty holder shall send a summary of each such review to the Executive:-
 - (a) where the review is conducted at the direction of the Executive, within such reasonable time, being a period of not less than 28 days of the direction, as may be specified by the Executive; or
 - (b) in all other cases, within 28 days of its conclusion

Reg. 14 Revision of Safety Case

(1) In addition to the other occasions on which a duty holder must revise a current safety case pursuant to these Regulations, a duty holder shall revise a current safety case:- 1.2.5 & 2.5.1

1.2.5 & 1.2.6

- (a) when appropriate; and
- (b) when directed to do so by the Executive pursuant to regulation 15(1).
- (2) Revisions made under sub-paragraph
 (a) of paragraph (1) which make a material change to the current safety case shall not be effective unless:-
 - (a) the duty holder has sent a version of the current safety case which incorporates the proposed revisions, showing clearly where they are to be made, to the Executive:-
 - (i) at least 3 months, or such shorter period as the Executive may specify; or
 - (ii) where the revisions relate to a combined operation, at least 6 weeks, or such shorter period as the Executive may specify,

before the revisions are to be made; and

- (b) the Executive has accepted the revisions.
- (3) Without prejudice to the generality of paragraph (2):-
 - (a) no well operation shall constitute a material change;
 - (b) no revision prepared or made pursuant to regulation 27 shall constitute a material change;
 - (c) the movement of a production installation to a new location to be operated there shall constitute a material change; and
 - (d) the conversion of a production installation to enable it to be operated as a non-production installation shall constitute a material change,

to the current safety case for the purposes of paragraph (2).

- Reg. 15Power of Executive in relation to safetyFor informationcases and related documentsFor information
 - The Executive may direct a duty holder to prepare revisions to a current safety case in relation to such matters as the Executive may notify to him.
 - (2) When making a direction for the purposes of paragraph (1),

the Executive shall explain why it believes that each revision is necessary and shall specify a period, not being less than 28 days, within which the duty holder shall submit such revisions to the Executive.

- (3) Revisions submitted pursuant to paragraph (1) shall not be effective unless:-
 - (a) the duty holder has sent a version of the current safety case which incorporates the proposed revisions, showing clearly where they are to be made, to the Executive; and
 - (b) the Executive has accepted the revisions.
- (4) After the submission of a design notification required under regulation 6 or 9 and prior to the submission of a safety case in respect of a production installation, the duty holder for that installation shall provide the Executive with a copy of any document which, in the opinion of the Executive, may be directly or indirectly relevant to the duty holder's preparation of the safety case for that installation within such reasonable time of the demand, being a period of not less than 14 days, as may be specified by the Executive.
- (5) The Executive may suspend any current safety case where it does not accept any proposed revision thereto submitted to it pursuant to regulation 15(3) or 27(2).
- (6) When suspending a current safety case in accordance with paragraph (5), the Executive shall explain why it believes that a suspension is necessary.
- (7) During any period in which the current safety case for an installation is suspended, the duty holder for that installation shall ensure that it is not operated.
- (8) The Executive may lift any suspension in respect of a current safety case when it is satisfied that the health and safety of persons who are likely to be affected by the lifting of any suspension will not be prejudiced in consequence of it.

| IADC HSE Case Guidelines Appendix 4 | | | |
|--|--|--------------|--|
| Reg. 16 | Duty to conform with Safety Case | 1.2.2 & 2.4 | |
| | (1) The duty holder shall ensure that the procedures and arrangements described in the current safety case which may affect health or safety are followed. | | |
| | (2) In criminal proceedings for a contravention of paragraph (1), it shall be a defence for the accused to prove that:- | | |
| | (a) in the particular circumstances of the case, it was not in the best interests of the health and safety of persons to follow the procedures or arrangements concerned and there was insufficient time to revise the safety case pursuant to regulation 14; or | | |
| | (b) the commission of the offence was due to a contravention by another person of regulation 8 of the Management Regulations and the accused had taken all reasonable precautions and exercised all due diligence to ensure that the procedures or arrangements were followed. | | |
| Reg. 17 | Notification of Well Operations | 2.3.12 & 3.3 | |
| | (1) Subject to paragraph (2), a well operator shall ensure that no well operation is commenced unless he has sent a notification containing the particulars specified in Schedule 6 to the Executive at least 21 days (or such shorter period as the Executive may specify) before commencing that operation. | | |
| | (2) In the case of a production installation a well operator shall ensure that:- | | |
| | (a) no well operation which involves:- | | |
| | (i) incortion of a bollow pipe in the | | |

- (i) insertion of a hollow pipe in the well; or
- (ii) altering the construction of the well,

is commenced unless he has sent a notification containing the particulars specified in Schedule 6 to the Executive at least 10 days (or such shorter period as the Executive may specify) before commencing that operation; and

(b) no well operation which involves drilling is commenced unless he has sent a notification containing the

particulars specified in Schedule 6 to the Executive at least 21 days (or such shorter period as the Executive may specify) before commencing that operation

- (3) Where there is a material change in any of the particulars notified pursuant to paragraph (1) prior to completion of the relevant well operation, the well operator shall notify the Executive of that change as soon as practicable.
- Reg. 18 Keeping of documents

Part 1 & 2.4

- (1) A duty holder shall:-
 - (a) ensure that, when he sends:-
 - the design notification, in the case of a production installation; or
 - (ii) the safety case, in the case of a non-production installation,

to the Executive, it is notified of an address in Great Britain for the purposes of sub-paragraphs (b) and (e) below;

- (b) keep copies, at the address referred to in sub-paragraph (a) and on the installation, of the following documents relating to the installation:-
 - (i) the current safety case;
 - (ii) any summary of any review of the current safety case prepared pursuant to regulation 13(2); and
 - (iii) each audit report;
- (c) keep copies on the installation of the following documents relating to the installation:-
 - (i) any relocation notification and any material changes thereto;
 - (ii) any notification of combined operations and any material changes thereto; and
 - (iii) any notification of well operations and any material changes thereto;
- (d) ensure that, in respect of each audit report, a written statement is made, recording:-
 - (i) the main findings of the report;

- (ii) the recommendations in the report; and
- (iii) the action proposed to implement those recommendations, including the timescales involved,

and a copy of that statement kept on the installation; and

- (e) ensure that a record is made of any action taken in consequence of an audit report, and a copy of that record kept at the address referred to in sub-paragraph (a) and on the installation.
- (2) The copy of the current safety case referred to in paragraph (1) and any other relevant documents shall be kept for so long as they are current, and the copy of the audit report, the written statement and the record referred to in that paragraph shall be kept for a period of 3 years after being made.
- (3) The duty holder for an installation shall ensure that:-
 - (a) its verification scheme, any modification of that scheme and any note made pursuant to regulation 19(2)(c) or 20(b) is kept at the address notified to the Executive pursuant to sub-paragraph (a) of paragraph (1) until the expiration of 6 months after such scheme or, as the case may be, modification of that scheme, has ceased to be current; and
 - (b) records, sufficient to show the matters described in paragraph 5 of Schedule 7, are kept at the address notified to the Executive pursuant to sub-paragraph (a) of paragraph (1) until the expiration of 6 months after the scheme pursuant to which they were compiled has ceased to be current.
- (4) In this regulation, "audit report" means a report made pursuant to the arrangements referred to in regulation 12(1)(b).
- Reg. 19 Verification schemes
 - (1) The duty holder for an installation shall ensure that a record of the safety-critical elements and the specified plant is

2.4.6 & 6.4
made.

- (2) After a record has been made in accordance with paragraph (1), the duty holder shall ensure that, in accordance with paragraph (3):-
 - (a) comment on that record by an independent and competent person is invited;
 - (b) a verification scheme providing for the matters contained in Schedule 7 is drawn up by or in consultation with such person;
 - (c) a note is made of any reservation expressed by such person as to the contents of:-
 - (i) that record; or
 - (ii) that scheme; and
 - (d) that scheme is put into effect.
- (3) The matters set out in paragraph (2) shall be completed:-
 - (a) in the case of a production installation, before completion of its design; and
 - (b) in the case of a non-production installation, before it is moved into relevant waters with a view to its being operated there.
- Reg. 20Review and revision of verification schemes2.4.6 & 6.4The duty holder shall ensure that, as often

as may be appropriate:-

- (a) the verification scheme for his installation is reviewed and, where necessary, revised or replaced by or in consultation with an independent and competent person; and
- (b) a note is made of any reservation expressed by such person in the course of drawing it up.
- Reg. 21Continuing effect of verification schemes1.2.6

The duty holder shall ensure that effect continues to be given to the verification scheme for his installation, or any revision or replacement of it, while that installation remains in being.

- Reg. 22 Defence
- Reg. 23 Exemptions

For information

For information

| Reg. 24 | Appeals | For information |
|---------|-------------------------|-----------------|
| Reg. 25 | Amendments | For information |
| Reg. 26 | Revocation | For information |
| Reg. 27 | Transitional provisions | For information |

Schedule 1 – Regulation 6(1) and (2) and Regulation 9 (1)

Particulars to be included in a design notification or a relocation notification (applicable only for MODU's being converted to a Production installation)

| Para. 1 | The name and address of the operator of the installation | 1.2.3 |
|---------|--|--|
| Para. 2 | A description of the design process from an initial concept to the submitted design and the design philosophy used to guide the process | Conversion not part of HSE Case guideline scope |
| Para. 3 | A description of:- (a) the chosen design concept, including | Conversion not part of HSE |
| | suitable diagrams, and a summary of the other design options which were considered; | Case guideline scope |
| | (b) how the chosen design concept is intended to ensure:- | |
| | (i) compliance with the requirements set out in regulations 5 and 10 of the Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996; and | |
| | (ii) that risks with the potential to cause a major accident are reduced to the lowest level that is reasonably practicable; and | |
| | (c) the criteria used to select the chosen design concept and the process by which the selection was made. | |
| Para. 4 | A description of:- | Conversion not |
| | (a) the principal systems on the installation; | part of HSE Case guideline |
| | (b) the installation layout; | scope |
| | (c) the process technology to be used; | |
| | (d) the principal features of any pipeline; | |
| | (e) any petroleum-bearing reservoir intended to be exploited using the installation; and | |

(f) the basis of design for any wells to be connected to the installation. Para. 5 Conversion not A suitable plan of the intended location of the installation and of anything which may part of HSE be connected to it, and particulars of:-Case guideline scope (a) the meteorological and oceanographic conditions to which the installation may foreseeably be subject; and (b) the properties of the sea-bed and subsoil at its location. Para, 6 Particulars of the types of operation, and Conversion not activities in connection with an operation, part of HSE which the installation may perform. Case guideline scope Para. 7 A general description of the means by which Conversion not the management system of the operator will part of HSE ensure that the structure and plant of the Case guideline installation will be designed, selected. scope constructed and commissioned in a way which will control major accident risks to comply with the relevant statutory provisions. Para, 8 A summary of the verification scheme Conversion not prepared pursuant to sub-paragraph (b) of part of HSE paragraph (2) of regulation 19. Case guideline scope Para, 9 Conversion not Where a non-production installation is to be converted for use as a production part of HSE installation, an explanation of why the owner Case guideline considers the installation suitable for scope conversion. Para, 10 Where a production installation is to be Conversion not moved to a new location, an explanation of part of HSE why the operator considers the installation Case guideline suitable for the new location. scope

Schedule 2 – Regulation 7(1) and Regulation 9 (5)

Particulars to be included in a safety case for the operation of a production installation

- Para. 1 The name and address of the operator of the installation.
- Para. 2 A description of the extent to which the duty holder has taken into account any matters raised by the Executive pursuant to regulations 6(1) and (4)(a) and 9(1) and (4).

N/A for MODU's, for information only

| Para. | 3 | A summary of how any safety representatives for that installation were consulted with regard to the revision, review or preparation of the safety case pursuant to regulation 23(2)(c)(i) of the Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989. | N/A for MODU's, for information only |
|-------|---|--|--|
| Para. | 4 | A description, with suitable diagrams, of:- | N/A for |
| | | (a) the main and secondary structure of the installation and its materials; | MODU's, for information only |
| | | (b) its plant; | |
| | | (c) the layout and configuration of its plant; | |
| | | (d) the connections to any pipeline or installation; and | |
| | | (e) any wells connected or to be connected to the installation. | |
| Para. | 5 | A suitable plan of the location of the installation and of anything connected to it, and particulars of:- | N/A for MODU's, for information only |
| | | (a) the meteorological and oceanographic conditions to which the installation may foreseeably be subjected; and | |
| | | (b) the properties of the sea-bed and subsoil at its location. | |
| Para. | 6 | Particulars of the types of operation, and activities in connection with an operation, which the installation is capable of performing. | N/A for MODU's, for information only |
| Para. | 7 | The maximum number of persons:- | N/A for |
| | | (a) expected to be on the installation at any time; and | MODU's, for information only |
| | | (b) for whom accommodation is to be provided. | |
| Para. | 8 | Particulars of the plant and arrangements for the control of well operations, including those:- | N/A for MODU's, for information only |
| | | (a) to control pressure in a well; | |
| | | (b) to prevent the uncontrolled release of hazardous substances; and | |
| | | (c) to minimise the effects of damage to subsea equipment by drilling equipment. | |
| Para. | 9 | A description of any pipeline with the potential to cause a major accident, including:- | N/A for MODU's, for information only |

- (a) the fluid which it conveys;
- (b) its dimensions and layout;
- (c) its contained volume at declared maximum allowable operating pressure; and
- (d) any apparatus and works intended to secure safety,

together with a summary of the document prepared under regulation 23 of the Pipelines Safety Regulations 1996.

- Para. 10 A description of how the duty holder has ensured, or will ensure, compliance with regulation 4(1) of the PFEER Regulations.
- Para. 11 A description of arrangements made for protecting persons on the installation from toxic gas at all times other than during any period while they may need to remain on the installation following an incident which is beyond immediate control.
- Para. 12 A description of the measures taken or to be taken or the arrangements made or to be made for the protection of persons on the installation from hazards of explosion, fire, heat, smoke, toxic gas or fumes during any period while they may need to remain on the installation following an incident which is beyond immediate control and for enabling such persons to be evacuated from the installation where necessary, including provision for:-
 - (a) temporary refuge;
 - (b) routes from locations where persons may be present to temporary refuge and for egress therefrom to points from where the installation may be evacuated;
 - (c) means of evacuation at those points; and
 - (d) facilities within temporary refuge for the monitoring and control of the incident and for organising evacuation.
- Para. 13 A description of the main requirements in the specification for the design of the installation and its plant, which shall include:-
 - (a) any limits for safe operation or use specified therein;
 - (b) a description of how the duty holder has ensured, or will ensure, compliance with regulation 4 of the Offshore Installations

N/A for MODU's, for information only

N/A for MODU's, for information only

N/A for MODU's, for information only

N/A for MODU's, for information only and Wells (Design and Construction, etc.) Regulations 1996;

- (c) a description of how the duty holder has ensured, or will ensure, the suitability of the safety-critical elements; and
- (d) a description of how the duty holder:-
 - where he is also the operator in relation to a pipeline, has ensured, or will ensure, compliance with regulation 11 of the Pipelines Safety Regulations 1996; or
 - (ii) where he is not also the operator in relation to a pipeline, has cooperated or will co-operate with the operator in relation to a pipeline to ensure compliance with regulation 11 of the Pipelines Safety Regulations 1996.
- Para. 14 Particulars of any combined operations which may involve the installation, including:-
 - (a) a summary of the arrangements in place for co-ordinating the management systems of all duty holders involved in any such combined operation;
 - (b) a summary of the arrangements in place for a joint review of the safety aspects of any such combined operation by all duty holders involved, which shall include the identification of hazards with the potential to cause a major accident and the assessment of risks which may arise during any such combined operation;
 - (c) the plant likely to be used during any such combined operation; and
 - (d) the likely impact any such combined operation may have on the installations involved.

Schedule 3 – Regulation 8

Particulars to be included in a safety case for the operation of a non-production installation

| Para. | 1 | The name and address of the owner of the installation. | 1.2.3 |
|-------|---|--|----------------|
| Para. | 2 | A summary of how any safety representatives for that installation were consulted with regard to the revision, review or preparation of the safety case pursuant to regulation 23(2)(c)(i) of the Offshore Installations (Safety Representatives and | 2.2.1.2, 4.8.2 |

N/A for MODU's, for information only Safety Committees) Regulations 1989.

| Para. 3 | A description, with suitable diagrams, of:- (a) the main and secondary structure of the installation and its materials; | 3.1, 3.2, 3.3 & 3.4 |
|---------|---|--|
| | (b) its plant; and | |
| | (c) the layout and configuration of its plant. | |
| Para. 4 | | 0 0 10 0 0 10 |
| Faia. 4 | Particulars of the types of operation, and activities in connection with an operation, which the installation is capable of performing. | 2.3.12, 2.3.13, 3.3, 3.8, 3.9 & 3.10 |
| Para. 5 | The maximum number of persons:- | 3.6 & 3.7 |
| | (a) expected to be on the installation at any time; and | |
| | (b) for whom accommodation is to be provided. | |
| Para. 6 | Particulars of the plant and arrangements for the control of well operations, including those:- | 3.3, 3.4, 3.5, 3.8 & 3.10 |
| | (a) to control pressure in a well; | |
| | (b) to prevent the uncontrolled release of hazardous substances; and | |
| | (c) to minimise the effects of damage to subsea equipment by drilling equipment. | |
| Para. 7 | A description of how the duty holder has ensured, or will ensure, compliance with regulation 4(1) of the PFEER Regulations. | 3.5 |
| Para. 8 | A description of arrangements made for protecting persons on the installation from toxic gas at all times other than during any period while they may need to remain on the installation following an incident which is beyond immediate control. | 2.3.17, 3.5.2 & 5.4 |
| Para. 9 | A description of the measures taken or to be taken or the arrangements made or to be made for the protection of persons on the installation from hazards of explosion, fire, heat, smoke, toxic gas or fumes during any period while they may need to remain on the installation following an incident which is beyond immediate control and for enabling such persons to be evacuated from the installation where necessary, including provision for:- | 3.5, 3.6 & Part 5 |
| | (a) temporary refuge; | |
| | (b) routes from locations where persons may be present to temporary refuge and | |

for egress therefrom to points from where the installation may be evacuated;

- (c) means of evacuation at those points; and
- (d) facilities within temporary refuge for the monitoring and control of the incident and for organising evacuation.
- Para. 10A description of the main requirements in
the specification for the design of the
installation and its plant, which shall
include:-2.4, 3.1, 3.2, &
Part 6
 - (a) any limits for safe operation or use specified therein;
 - (b) a description of how the duty holder has ensured, or will ensure, compliance with regulation 4 of the Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996; and
 - (c) a description of how the duty holder has ensured, or will ensure, the suitability of the safety-critical elements.

Para. 11 Particulars of:-

 (a) the limits of the environmental conditions beyond which the installation cannot safely be stationed or operated; 3.2.1, 3.2.2, 3.2.3 & 3.2.4

- (b) the properties of the sea-bed and subsoil which are necessary for the safe stationing and operation of the installation; and
- (c) the locations in which the installation may be stationed and operated safely.
- Para. 12 A description of the arrangements for:- 2.2.3.4 & Part 4
 (a) identifying the routes and locations of pipelines, wells and other subsea equipment; and
 (b) assessing the risks that they pose to the installation.
- Para. 13Particulars of any combined operations
which may involve the installation,
including:-2.2.3.4, 2.2.3.5,
2.3.12, 2.3.20,
3.8, 3.9, 3.10 &
4.6.3
 - (a) a summary of the arrangements in place for co-ordinating the management systems of all duty holders involved in any such combined operation;
 - (b) a summary of the arrangements in place for a joint review of the safety aspects of any such combined operation by all duty holders involved, which shall include the

identification of hazards with the potential to cause a major accident and the assessment of risks which may arise during any such combined operation;

- (c) the plant likely to be used during any such combined operation; and
- (d) the likely impact any such combined operation may have on the installations involved.

Schedule 4 – Regulation 10(1)

Particulars to be included in a notification of combined operations

| Para. 1 | The name and address of each duty holder preparing the notification and a confirmation that every such duty holder has agreed to the contents of the notification. | 1.2.3 |
|---------|--|---------------------------|
| Para. 2 | A description of how the management systems for the installations involved in the combined operation will be co-ordinated so as to reduce the risks from a major accident to comply with the relevant statutory provisions. | 2.2.3.4 & 2.3.12 |
| Para. 3 | Particulars of any plant to be used in connection with the combined operation but which is not described in the current safety case for any of the installations involved in the combined operation. | 2.3.12, 3.8, 3.9 &3.10 |
| Para. 4 | A summary of the joint review referred to in paragraph 14(b) of Schedule 2 or paragraph 13(b) of Schedule 3, which shall include:- | 2.3.12 & 4.6.3 |
| | (a) a description of any activities during the combined operation which may involve hazards with the potential to cause a major accident on or in connection with an installation; and | |
| | (b) a description of any risk control measures introduced as a result of that review. | |
| Para. 5 | A description of the combined operation and a programme of work, which shall include the dates on which the combined operation is expected to commence and finish. | 2.3.12 |

Schedule 5 – Regulation 11

Particulars to be included in a current safety case in respect of the dismantling of a fixed installation

| Para. 1 | The name and address of the operator of the installation. | N/A for MODU's, for information only |
|------------|---|--|
| Para. 2 | The dates on which dismantling is expected to commence and finish. | N/A for MODU's, for information only |
| Para. 3 | A summary of how any safety representatives for that installation were consulted with regard to the revision of the safety case pursuant to regulation 23(2)(c)(i) of the Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989. | N/A for MODU's, for information only |
| Para. 4 | The maximum number of persons expected to be on the installation at any time during its dismantling. | N/A for MODU's, for information only |
| Para. 5 | A description of how the duty holder will comply with regulation 4(1) of the PFEER Regulations with regard to the dismantling of the installation. | N/A for MODU's, for information only |
| Para. 6 | A description of arrangements made for protecting persons on the installation from toxic gas at all times other than during any period while they may need to remain on the installation following an incident which is beyond immediate control. | N/A for MODU's, for information only |
| Para. 7 | A description of how the proposed arrangements, methods and procedures for dismantling the installation and connected pipelines take adequate account of the design and method of construction of the installation and its plant. | N/A for MODU's, for information only |
| Sahadula 6 | Population 17 | |

Schedule 6 – Regulation 17

Particulars to be included in a notification of well operations

*(Included for information and guidance during consultation with Well Operator)

| Para. 1 | The name and address of the well operator. | See note above* |
|---------|--|--------------------|
| Para. 2 | Where the well operation is to be carried out:- | See note above* |
| | (a) from an installation, the name of the installation and the name and address of the duty holder for that installation; or | |

| | (b) by means of a vessel, the name of that vessel. | |
|---------|---|--------------------|
| Para. 3 | Particulars of the fluids to be used to control the pressure of the well. | See note above* |
| Para. 4 | Particulars of any plant, not described in the current safety case for the installation, which is to be used in connection with the well operation. | See note above* |
| Para. 5 | Particulars of the type of well, its number, and slot number, and the name of any field development of which it may be part | See note above* |
| Para. 6 | A description of the well operation and a programme of works which includes:- | See note above* |
| | the date on which each well operation is expected to commence and finish; and | |
| | the intended operational state of the well at the end of each well operation. | |
| Para. 7 | A description of:- | See note |
| | (a) any activities on or in connection with an installation or a vessel during the well operation described pursuant to paragraph 6 which may involve any hazards with the potential to cause a major accident; and | above* |
| | (b) such hazards. | |
| Para. 8 | In the case of a well which is to be drilled:- | See note |
| | (a) particulars, with suitable diagrams, of— | above* |
| | (i) the location of the top of the well; | |
| | (ii) the directional path of the well-bore; | |
| | (iii) its terminal depth and location; and | |
| | (iv) its position, and that of nearby wells, relative to each other; | |
| | (b) particulars of the geological strata and formations, and of fluids within them, through which it will pass, and of any hazards with the potential to cause a major accident which they may contain; | |
| | (c) the procedures for effectively monitoring the direction of the well-bore, and for minimising the likelihood and effects of intersecting nearby wells; and | |
| | (d) a description of the design of the well, including the limits on its safe operation and use. | |

and use.

- Para. 9 See note In the case of an existing well:above* (a) a diagram of the well; (b) a summary of earlier operations in relation to it; (c) the purposes for which it has been used; (d) its current operational state; (e) its state of repair; (f) the physical conditions within it; and (g) its production capacity Para, 10 See note Where a well operation is to be carried out by means of a non-production installation or above* a vessel:-(a) particulars of-(i) the meteorological and oceanographic conditions to which that installation or, as the case may be, vessel may foreseeably be subjected; (ii) the depth of water; and (iii) the properties of the sea-bed and subsoil at the location at which the well operation will be carried out; and (b) a description of how the well operator and:-(i) the owner of the installation; or (ii) the operator and owner of the vessel involved in the well operation will coordinate their management systems so as to reduce the risks from a major accident to comply with the relevant statutory provisions. Schedule 7 – Regulation 19(2)(b) Matters to be provided for in a verification scheme Para. 1 The principles to be applied by the duty 2.4, & Part 6 holder for the installation in selecting persons:a) to perform functions under the scheme; and
 - b) to keep the scheme under review.
- Para. 2 Arrangements for the communication of 2.4.6, & 6.4 information necessary for the proper implementation, or revision, of the scheme to the persons referred to in paragraph 1.

| Para. 3 | The nature and frequency of examination and testing. | 2.4.6, & 6.4 |
|------------|---|-----------------|
| Para. 4 | Arrangements for review and revision of the scheme. | 2.4.6, & 6.4 |
| Para. 5 | The arrangements for the making and preservation of records showing— | 2.4.6, & 6.4 |
| | a) the examination and testing carried out; | |
| | b) the findings; | |
| | c) remedial action recommended; and | |
| | d) remedial action performed. | |
| Para. 6 | Arrangements for communicating the matters specified in paragraph 5 to an appropriate level in the management system of the duty holder for the installation. | 2.4.6, & 6.4 |
| Schedule 8 | - Regulation 24(2) | |
| Appeals | | |
| Para. 1 | In this Schedule— | For information |
| | "appeal" means an appeal under regulation 24; | |
| | "appellant" means a person who has brought an appeal; | |
| | "appointed person" means a person appointed in accordance with paragraph 2; | |
| | "hearing" means a hearing to which Part 2 of this Schedule applies; and | |
| | "the parties" means the appellant and the Executive. | |
| Para. 2 | The Secretary of State shall direct that an appeal shall be determined by a person | For information |

- appeal shall be determined by a person appointed by him for the purpose and the Secretary of State shall notify the parties in writing of the name of the appointed person.
 Para. 3 Before the determination of an appeal, the appointed person shall ask the parties whether they wish to appear and be heard on the appeal and:-
 - a) the appeal may be determined without a hearing of the parties if both of them express a wish not to be heard as aforesaid; or
 - b) the appointed person shall, if either party expresses a wish to appear and be heard, afford both of them an opportunity of so doing, in which case the provisions

of Part 2 of this Schedule shall apply.

For information Para. 4 An appointed person may give such directions as he thinks appropriate to give effect to his determination. Para 5 For information The Secretary of State may pay to an appointed person such remuneration and allowances as the Secretary of State may, with the approval of the Minister for the Civil Service, determine. Para, 6 (1) Subject to the following sub-paragraphs For information of this paragraph, a date, time and place for the holding of the hearing shall be fixed by the appointed person, who shall give not less than 28 days' notice in writing of such date, time and place to the parties. (2) With the consent of the parties, the appointed person may give such lesser period of notice as shall be agreed with the parties and in that event he may specify a date for service of the statement referred to in paragraph 7(1) later than the date determined in accordance with that paragraph. (3) Where it becomes necessary or advisable to vary the date, time or place fixed for the hearing, the appointed person shall give such notice of the variation as may appear to him to be reasonable in the circumstances. Para. 7 (1) Not later than 21 days before the date of For information the hearing, or such later date as the appointed person may specify in accordance with paragraph 6(2), the Executive shall serve on the appellant a written statement of any submission which the Executive proposes to put forward at the hearing and shall supply a copy of the statement to the appointed person. (2) Where the Executive intends to refer to or put in evidence documents (including photographs and plans) at the hearing:-(a) the statement of the Executive shall be accompanied by a list of those documents together with a written notice stating the times and place at which the documents may be inspected by the appellant; and

Para. 8

- (b) the Executive shall afford the appellant a reasonable opportunity to inspect and, where practicable, to take copies of those documents.
- (3) If so required by the appointed person, the appellant shall:-
 - (a) serve on the Executive and on the appointed person, within such time before the hearing as the appointed person may specify, a written statement of the submissions which he proposes to put forward at the hearing accompanied by a list of any documents (including photographs and plans) which he intends to refer to or put in evidence at the hearing; and
 - (b) afford the Executive a reasonable opportunity to inspect and, where practicable, to take copies of those documents.
- (1) The parties shall be entitled to appear at the hearing.
- (2) Any other person may appear at the discretion of the appointed person provided that he has, not later than 7 days before the date of the hearing, served on the Executive a statement of his proposed submissions.
- (3) The Executive shall send a copy of every statement served on it in accordance with sub-paragraph (2) to the appointed person and to the appellant.
- (4) A body corporate may appear by its clerk or secretary or by any other officer appointed for the purpose by that body, or by counsel or a solicitor.
- (5) A person may appear in his own behalf or be represented by counsel, a solicitor or any other person.
- (6) Where there are two or more persons having a similar interest in the subject matter of the hearing, the appointed person may allow one or more persons to appear for the benefit of some or all persons so interested.

Para. 9 (1) All hearings shall be held in private. For information

For information

- (2) Except as otherwise provided in this Part of the Schedule, the procedure of the hearing shall be such as the appointed person shall in his discretion determine and the appointed person shall state at the commencement of the hearing the procedure which, subject to consideration of any submission by the parties, he proposes to adopt.
- (3) Unless in a particular case the appointed person, with the consent of the appellant, otherwise determines, the appellant shall be heard first and shall have the right of final reply.
- (4) The parties shall be entitled to make an opening statement, call evidence and cross-examine persons giving evidence but any other person appearing at the hearing may only do so to the extent permitted by the appointed person.
- (5) Subject to sub-paragraph (6), any evidence may be admitted at the discretion of the appointed person, who may direct that documents tendered in evidence may be inspected by any person entitled or permitted to appear at the hearing and that facilities be afforded him to take or obtain copies thereof.
- (6) The appointed person shall not require or permit the giving or production of any evidence, whether written or oral, which would be contrary to the public interest.
- (7) The appointed person may allow the parties to alter or add to the submissions contained in any statement served under paragraph 7(1) or (3), or to any list of documents which accompanied such statement, so far as may be necessary for the purpose of determining the questions in controversy between them, but shall (if necessary, by adjourning the hearing) give the other party an adequate opportunity of considering any such fresh submission or document.
- (8) If any person entitled to appear at the hearing fails to appear, the appointed person may proceed with the hearing at his discretion.

- (9) The appointed person shall be entitled (subject to disclosure thereof at the hearing) to take into account any written representations or statements received by him before the hearing from any person.
- (10) The appointed person may from time to time adjourn the hearing, and where he does so, shall give reasonable notice to every person entitled or permitted to appear at the hearing of the date, time and place of the adjourned hearing.
- Para. 10
- (1) Where, after the hearing, the appointed For inforperson proposes to take into consideration:-
 - (a) any new evidence, including expert opinion on a matter of fact; or
 - (b) any new issue of fact, not being a matter of government policy or a matter affecting the safety of the State,

which was not raised at the hearing and which he considers to be material to his decision, he shall not come to a decision without first notifying the parties of the substance of the new evidence or of the new issue of fact and affording them an opportunity of making representations thereon in writing within 21 days or of asking within that time for the re-opening of the hearing.

- (2) If he thinks fit, the appointed person may cause the hearing to be re-opened and shall cause it to be re-opened if asked to do so in accordance with sub-paragraph (1).
- (3) Where a hearing is re-opened, paragraph 6(1) shall apply as it applied to the original hearing.
- Para. 11 The appointed person shall notify the Gecision on the appeal, and the reasons therefore, in writing to the parties and to any person who, having appeared at the hearing, has asked to be notified of the decision

For information

Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 (PFEER)

| - | · , | | | |
|--------------|--|---|---------------------------|--|
| Regulation | Requirement | HSE Case Reference | Other Relevant Article | |
| Reg. 5 | Carry out hazard identification & risk | 1.2.2 | MHSWR | |
| | assessment an establish performance standards for relevant items | 4.0.1 | | |
| Reg. 6 | Preparation for emergencies, establishing appropriate organisation and arrangements | Part 5 | MHSWR | |
| Reg. 7 | Equipment for helicopter emergencies | 5.1.3 | MAR | |
| Reg. 8 | Emergency response plan | 5.1.3 | | |
| Reg. 9 | Prevention of fire and explosion | 3.4.10 3.5 2.3.5 2.3.19 4.3 | | |
| Reg. 10 | Detection of incidents | 3.5.2 | | |
| Reg. 11 | Communication (in the event of an emergency) | 5.2 | | |
| Reg. 12 | Control of emergencies | 5.2 | | |
| Reg. 13 | Mitigation of fire and explosion | 3.5.4 & 3.5.5 | 5 | |
| Reg. 14 | Muster areas | 5.4.1 | | |
| Reg. 15(a) | Arrangements for evacuation, the provision of plant on the installation | 5.5.1 | | |
| Reg. 15(b) | Such arrangements with suitable persons beyond the installation | 5.5.2 | | |
| Reg. 16 | Means of escape | 5.5.1 | | |
| Reg. 17 | Arrangements for recovery and rescue | 5.5.2 | | |
| Reg. 18 (1a) | | | | |
| Reg. 18 (1b) | Suitability of personal protective equipment in the event of immersion in the sea | t, 2.4 & 5.5.1 | | |
| Reg. 19 | Suitability | 2.4 | | |
| Reg. 20 | Life saving appliances | 5.5.1 | | |
| | | | | |

| The Offshore Installations and Wells (Design and Construction etc) Regulations 1996 | | | |
|---|--|-----------------------|---------------------------|
| Regulation | Requirement | HSE Case Reference | Other Relevant Article |
| Wells | | | |
| Reg. 17 | Well Control | 2.3.12 | |
| Reg. 20 | Co-operation | 2.2.3.4 & 2.2.3.5 | |
| Reg. 21 | Information, instruction, training and supervision | 2.2.4 | |
| Pt II - Integrity | y | | |
| Reg. 4 | General duty | 3.2 & 3.3 | |
| Reg. 5 | Design of an installation | 3.1, 3.2, 3.3 3.4 | 3 & |
| Reg. 6 | Work to an installation | 2.3.2 & 2.3 | .14 |
| Reg. 7 | Operation of an installation | 2.3 | |
| Reg. 8 | Maintenance of integrity | 2.3.19 | |
| Reg. 9 | Reporting of danger to an installation | 2.4.2 | |
| Part III Furthe | er requirements relating to installations | | |
| Reg. 11 | Helicopter landing area | 3.4.8 | |

The Offshore Installations and Pipeline Works (Management & Administration) Regulations 1995

| Regulation | Requirement | HSE Case Other Relevant Reference Article |
|------------------|------------------------------|--|
| Reg. 6 | Managers | 2.2.1 |
| Reg. 7 | Restraint and putting ashore | 2.2.2.2 |
| Reg. 8 | Co-operation | 2.2.3.4 & 2.2.3.5 |
| Reg. 9 | Records | 2.3.16.1 |
| Reg. 10 | Permits to work | 2.3.4 |
| Reg. 11 | Instructions | 2.3.5 & 2.3.8 |
| Reg. 12 | Communication | 2.3.9 & 3.4.6 |
| Reg. 13 | Helicopters | 3.4.8 |
| Reg. 14 | Operational information | 2.3.12, 2.3.13 & 2.3.15 |
| Reg. 16 | Health surveillance | 2.2.3.7 & 2.3.7 |
| Reg. 17 | Drinking water | 2.2.3.6 |
| Reg. 18 | Provisions | 2.2.3.6 |
| lssue 3.6 – 1 Ja | nuary 2015 | A4-9' |

| Regulation | Requirement | HSE Case Reference | Other Relevant Article |
|------------|---|-----------------------|---------------------------|
| Reg. 19 | Identification of the offshore installation | 3.4.8 | |

| Provision | & | Use | of | Work | equipment | Regulations | s 1998 |
|---------------|--------|-----|----------|------|------------|-------------|--------|
| 1 10 10101011 | \sim | 000 | <u> </u> | | oquipinoin | rogalation | , 1000 |

| Reg. 4 | Suitability of work equipment | 3.1.5 |
|--------|-------------------------------|--------------|
| Reg. 5 | Maintenance | 2.3.19 |
| Reg. 6 | Inspection | 2.3.19 & 2.4 |
| Reg. 7 | Specific risks | 4.3 |
| Reg. 8 | Information and instructions | 2.3.8 |

Smedvig Offshore AS have completed a comparison study of regulatory requirements for the UK and Norway on behalf of the HSE and PSA. It was noted that from its GAP analysis that the following UK regulations were not mirrored in Norwegian Legislation.

Safety Case Regulations

Regulation 8 – Safety Case for non production installations

Regulation 18 - Keeping of documents

Regulations 19, 20, 21 - Verification Scheme - ICP

Management and Administration Regulations

Regulation 6 - Managers

Regulation 7 - Restraint and putting ashore

Regulation 9 - Personnel records

Regulation 13 - HLO

Prevention of Fire and Explosion and Emergency Response Regulations

Regulation 11 - Signal for toxic gas

Design and Construction Regulations

Pipeline Safety Regulations

The Provision and Use of Work Equipment Regulations

For drilling contractors moving MODU's from Norway to the UK it is recommended that these issues be examined in detail to ensure compliance. This report can be found on PSA website (www.ptil.no) under the heading: <u>Report - regulations for drilling installations in Great Britain and Norway</u>.

A4.6 NORWAY

| Regulator: | Petroleumstilsynet | (Petroleum Safety Authority Norway) |
|------------|---|-------------------------------------|
| | P.O. Box 599, N-4003 Stavanger Norway | |
| Telephone: | +47 51 87 60 50 | |
| E-mail: | postboks@ptil.no | |
| | www.ptil.no | |
| | | |

The Petroleum Safety Authority; Norway (PSA) is the responsible regulatory authority for safety and working environment in the petroleum industry both onshore and offshore. The PSA is also delegated the authority to coordinate the total HSE supervision.

HSE Case Submission Requirements:

Under the Norwegian petroleum legislation the primary duty holder for offshore petroleum operations, including drilling operations, is the licensee. For each licence, the Ministry of Oil and Energy appoints one of the licensees as an operator. The operator will on behalf of the licensee execute the day to day management of the petroleum activities. Under the above legislation licensee and other company/persons engaged in petroleum activities are obliged to comply with the Act, regulations and individual administrative decisions issued by virtue of the Act through the implementation of necessary systematic measures. In addition the licensee shall see to that anyone performing work for him, either personally, through employees or through contractors or subcontractors, shall comply with the provisions laid down in or pursuant to the legislation.

It's a prerequisite in the Norwegian legislation that the owner or other legal person who will be in charge of the daily operations of a mobile offshore drilling unit (MODU) shall have received an Acknowledgement of Compliance (AoC) for the unit, from the Petroleum Safety Authority (PSA) prior to performing any drilling operations in PSA's area of jurisdiction. An AoC is a statement that a MODU's technical standard and the applicant's organisation and management system are in compliance with safety and working environment requirements in Norwegian legislation. After receiving an AoC it's the applicant's responsibility to ensure that the standard of the unit is maintained. An AoC gives no right to operate on the Norwegian Continental Shelf (NCS), but will form part of the documentation submitted by the Operator when applying for consent to perform drilling operations.

The "Health Safety and Environmental Case Guidelines for Drilling Contractors" presents a comprehensive methodology for review and documentation which may be used when applying for an AoC for operating on the NCS, but it is nevertheless important to establish contact with the PSA in order to agree the details of the application.

In addition to the evaluation of the relevant parts of the IADC HSE case, the AOC is based on the results from a gap analysis involving regulations not covered by the HSE-case, performed by the applicant as part of the application process. The gap analysis is normally an extensive process, resulting in the identification of all gaps (non-conformities) between the relevant systems (installation, organisation and the HSE management system), and the corresponding rules and regulations. An overview of the five most central regulations are given in the following pages, but other regulations are also applicable. An extensive list can be found on our web site <u>www.psa.no</u>. Any identified non-conformities must be corrected, unless exemption is granted by the PSA upon application. An exemption may be short term, i.e. need to be corrected by a given date, or long term, i.e. no further action required."

The authorities will normally require a 3 month period to review an application for an AoC for a MODU, given that the application is complete. Further details of the AoC are available on the PSA web site (www.ptil.no/aoc)

Acceptance Regime:

Prior to commencing major activities, the appointed operator is responsible for obtaining consent from PSA. The basis for obtaining such consent is a legally binding statement related to the regulatory compliance of the activity in question. Examples of such major milestones are exploration drilling, and commencement of production. Application for consent for exploration drilling should normally be sent minimum 9 weeks prior to commencement of the activity. Consents are related to activities, and do not imply approval of installations, equipment etc. An AoC must be included in the documentation when applying for consent to perform exploration drilling, but the Operator must assess the validity of the documentation with regards to the specific operation to be performed.

Alternative use of maritime legislation in the petroleum activities:

With regard to mobile facilities registered in a national register of shipping, and which follow a maritime operational concept, relevant technical requirements contained in rules and regulations of the Norwegian Maritime Directorate in the form following the amendments in 2003, together with supplementary classification regulations issued by recognised classification authority, or international flag state rules with supplementary classification rules achieving the same level of safety, may be used as an alternative to technical requirements laid down in the PSA regulations. There are however certain exemptions and limitations.

If this option is used the owner of a MODU should confer with the PSA as regards which paragraphs in the PSA regulations are covered by this option.

Regulations issued jointly with Petroleum Safety Authority Norway, Norwegian Pollution Control Authority and Norwegian Social and Health Directorate:

On the next page follows an overview indicating how relevant parts of the HES-regulations are reflected in the HES-guidelines. These regulations should however be read and interpreted as an entity; i.e. individual sections should not only be interpreted in isolation.

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| Regulations relating to management in the petroleum activities, (The management regulations), last updated 21.12.2004. | | | |
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| Regulation | Requirement | HSE Case Reference | Other Relevant Regulations |
| Chapter I, Section 1 | Main principles relating to reduction of identified risk. | Part 4 | |
| Chapter I, Section 2 | Requirements relating to the development of strategies and principles for design, use and maintenance of barriers. | Part 4 | |
| Chapter II, Section 3 | Requirements relating to the management of health, environment and safety. | Part 2 | |
| Chapter II, Section 4 | Requirements relating to the objectives and strategies for the improvement of health, safety and environment. | Part 2 | |
| Chapter II, Section 5 | Requirements relating to the conversion of goal- setting regulatory requirements into own prescriptive requirements. | Part 2 | |
| Chapter II, Section 6 | Requirements relating to the establishment of acceptance criteria for major accident risk and environmental risk. | Parts 2, 4 & 5 | |
| Chapter II, Section 7 | Requirements relating to the establishment of monitoring parameters in order to monitor aspects of significance to HES. | Part 2 | |
| Chapter II, Section 8 | Requirements relating to the evaluation of HES- aspects in the activity. | Part 2 | |
| Chapter III, Section 9 | Requirements relating to the planning of activities. | Part 2 | |
| Chapter III, Section 10 | Requirements relating to work processes and products. | Part 2 | |
| Chapter III, Section 11 | Requirements relating to manning and competence. | Part 2 | |

| HSE Case Guidelines Appendix | | |
|------------------------------|---|----------------|
| Chapter III, Section 12 | Requirements relating to identification and use of information in order to improve HES. | Part 2 |
| Chapter IV, Section 13 | General requirements relating to the content and use of HES analysis. | Parts 2, 4 & 5 |
| Chapter IV, Section 14 | Requirements relating to analysis of major accident risk. | Parts 2 & 4 |
| Chapter IV, Section 15 | Requirements relating to quantitative risk analysis and emergency preparedness analysis. | Parts 2, 4 & 5 |
| Chapter IV, Section 16 | Requirements relating to environmentally oriented risk and emergency preparedness analysis. | Parts 2, 4 & 5 |
| Chapter IV, Section 17 | Requirements relating to analysis of working environment. | Parts 2, 4 & 5 |
| Chapter V, Section 18 | Requirements relating to the collection, processing and use of data relating to HES. | Parts 2 & 6 |
| Chapter V, Section 19 | Requirements relating to the registration, examination and investigation of situations of hazard and accidents. | Parts 2 & 6 |
| Chapter V, Section 20 | Requirements relating to the handling of non-conformities. | Parts 2 & 6 |
| Chapter V, Section 21 | Requirements relating to the follow-up of established management systems. | Parts 2 & 6 |
| Chapter V, Section 22 | Requirements relating to the improvement of HES standards. | Parts 2 & 6 |
| Chapter VI, Section 23 | Entry into force of the regulations. | NA |

Regulations relating to material and information in the petroleum activities, (The information duty regulations), last updated 22.12.2005.

| | | HSE Case | Other Relevant |
|----------------------------|---|---------------------------|----------------|
| Regulation | Requirement | Reference | Regulations |
| Chapter I, Section 1 | General requirements relating to the form and format of documentation to be submitted to the authorities. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter I, Section 2 | Requirements relating to information made available through databases. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter I, Section 3 | Requirements relating to external publication of data. | NA | |
| Chapter I, Section 4 | Requirements relating to retention period and the discarding of documents. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter II, Section 5 | Requirements relating to requirements for the application for consents. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter II, Section 6 | Requirements relating to documentation to be included in application for consents. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter III, Section 7 | Requirements relating to documentation related to drilling and well activities. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter III, Section 8 | Requirements relating to well programme in the events of industrial conflict. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter III, Section 9 | Requirements relating to information on monitoring, discharge and risk of pollution. | Part 2 2.2.1.1/2.2.2.4 | |
| Chapter III, Section 10 | Requirements relating to material and information to be sent to other institutions. | NA | |
| Chapter IV, Section 11 | Requirements relating to alert and notification of situations of hazards and accidents. | Part 2 2.2.2.4/2.4.2 | |

| Chapter IV, Section 12 | Requirements relating to information on status in the development of incidents reported in accordance with section 11. | Part 2 2.2.2.4/2.4.2 |
|---------------------------|---|---------------------------|
| Chapter IV, Section 13 | Requirements relating to the notification of accidents which have resulted in death or personal injury. | Part 2 2.2.2.4/2.4.2 |
| Chapter IV, Section 14 | Requirements relating to the notification of possible work related disease. | Part 2 2.2.2.4/2.4.2 |
| Chapter IV, Section 15 | Requirements relating to the reporting of work hours. | NA |
| Chapter IV, Section 16 | Requirements relating to reporting in connection with manned underwater operations. | Part 2 |
| Chapter IV, Section 17 | Requirements relating to reporting on drilling and well activities. | Part 2 2.2.2.4/2.3.12 |
| Chapter IV, Section 18 | Requirements relating to reporting of damage to load bearing structures and pipelines system. | Part 2 2.2.1.1/2.2.2.4 |
| Chapter V, Section 19 | Entry into force of the regulations. | NA |

Regulations relating to design and outfitting of facilities etc. in the petroleum activities (The facility regulations), last updated 22.12.2005

| Regulation | Requirement | HSE Case Reference | Other Relevant Regulations | |
|----------------------------|---|-----------------------|-------------------------------|--|
| Chapter I, Section 1 | Definitions | Appendix 2 | | |
| Chapter I, Section 2 | Requirements relating to systems and other equipment for manned underwater operations from vessels. | NA | | |
| Chapter II, Section 3 | Requirements relating to choice of development concept. | Parts 2, 3, 4,& 5 | | |
| Chapter II, Section 4 | Requirements relating to design of facilities | Parts 2, 3, 4 & 5 | | |
| Chapter II, Section 5 | Requirements relating to design of simpler facilities without overnight stay possibility | Parts 2, 3, 4 & 5 | | |
| Chapter II, Section 6 | Requirements relating to main safety functions | Parts 2, 3, 4 & 5 | | |
| Chapter II, Section 7 | Requirements relating to safety functions | Parts 2, 3, 4 & 5 | | |
| Chapter III, Section 8 | Requirements relating to qualification and use of new technology and new methods | Part 2 | | |
| Chapter III, Section 9 | Requirements relating to plants, systems and equipment | Part 3/3.4 | | |
| Chapter III, Section 10 | Requirements relating to loads, load effects and resistance | Part 3/3.2 | | |
| Chapter III, Section 11 | Requirements relating to materials | Part 3 | | |
| Chapter III, Section 12 | Requirements relating to handling of materials and transport routes, access and evacuation routes | Part 3/3.4 | | |
| Chapter III, Section 13 | Requirements relating to ventilation and indoor climate | Part 3/3.4 | | |
| Chapter III, Section 14 | Requirements relating to chemicals and chemical exposure | Part 3 | | |

| Chapter III, Section 15 | Requirements relating to flammable and explosive goods | Part 3/3.4 |
|----------------------------|--|------------|
| Chapter III, Section 16 | Requirements relating to instrumentation for monitoring and recording | Part 3 |
| Chapter III, Section 17 | Requirements relating to systems for internal and external communication | Part 3/3.4 |
| Chapter III, Section 18 | Requirements relating to communication equipment | Part 3/3.4 |
| Chapter III, Section 19 | Requirements relating to ergonomic design | Part 3 |
| Chapter III, Section 20 | Requirements relating to man-machine interface and information presentation | Part 3 |
| Chapter III, Section 21 | Requirements relating to outdoor work areas | Part 3 |
| Chapter III, Section 22 | Requirements relating to noise and acoustics | Part 3 |
| Chapter III, Section 23 | Requirements relating to vibrations | Part 3 |
| Chapter III, Section 24 | Requirements relating to lighting | Part 3/3.5 |
| Chapter III, Section 25 | Requirements relating to radiation | Part 3 |
| Chapter III, Section 26 | Requirements relating to equipment for transportation of personnel | Part 3 |
| Chapter III, Section 27 | Requirements relating to safety signs | Part 3 |
| Chapter III, Section 28 | Requirements relating to passive fire protection | Part 3/3.5 |
| Chapter III, Section 29 | Requirements relating to fire divisions | Part 3/3.5 |
| Chapter III, Section 30 | Requirements relating to fire divisions in living quarters | Part 3/3.5 |
| Chapter III, Section 31 | Requirements relating to fire and gas detection systems | Part 3/3.5 |
| Chapter III, Section 32 | Requirements relating to emergency shutdown systems | Part 3/3.5 |
| Chapter III, Section 33 | Requirements relating to process safety systems | Part 3/3.5 |

| Chapter III, Section 34 | Requirements relating to gas release systems | Part 3/3.5 |
|----------------------------|---|-------------|
| Chapter III, Section 35 | Requirements relating to fire water supply | Part 3/3.5 |
| Chapter III, Section 36 | Requirements relating to fixed fire-fighting systems | Part 3/3.5 |
| Chapter III, Section 37 | Requirements relating to emergency power and emergency lighting | Part 3/3.4 |
| Chapter III, Section 38 | Requirements relating to ballasting systems | Part 3 |
| Chapter III, Section 39 | Requirements relating to open drainage systems | Part 3/3.2 |
| Chapter III, Section 40 | Requirements relating to equipment for rescue of personnel | Part 3/3.6 |
| Chapter III, Section 41 | Requirements relating to material for action against acute pollution | Parts 3 & 5 |
| Chapter III, Section 42 | Requirements relating to standby vessels | Parts 3 & 5 |
| Chapter III, Section 43 | Requirements relating to means of evacuation | Parts 3 & 5 |
| Chapter III, Section 44 | Requirements relating to survival suits and life jackets etc | Parts 3 & 5 |
| Chapter III, Section 45 | Requirements relating to manual fire-fighting and fireman's equipment | Parts 3 & 5 |
| Chapter III, Section 46 | Requirements relating to electrical installations | Part 3/3.4 |
| Chapter IV, Section 47 | Requirements relating to well barriers | Part 3/3.3 |
| Chapter IV, Section 48 | Requirements relating to well control equipment | Part 3/3.3 |
| Chapter IV, Section 49 | Requirements relating to compensator and disconnection systems | Part 3/3.3 |
| Chapter IV, Section 50 | Requirements relating to drilling fluid system | Part 3/3.3 |
| Chapter IV, Section 51 | Requirements relating to cementing unit | Part 3/3.3 |
| Chapter IV, Section 52 | Requirements relating to casings and anchoring of wells | Part 3/3.3 |

| Chapter IV, Section 53 | Requirements relating to equipment for completion and controlled well flow | Part 3/3.3 |
|---------------------------|--|--------------|
| Chapter IV, Section 54 | Requirements relating to Christmas tree | Part 3/3.3 |
| Chapter IV, Section 55 | Requirements relating to remote operation of pipes and work strings | Part 3/3.3 |
| Chapter IV, Section 56 | Requirements relating to production plants | Part 3/3.4 |
| Chapter IV, Section 57 | Requirements relating to main load bearing structures | Part 3/3.2 |
| Chapter IV, Section 58 | Requirements relating to pipeline systems | NA |
| Chapter IV, Section 59 | Requirements relating to living quarters | Part 3/3.7 |
| Chapter IV, Section 60 | Requirements relating to health department | Parts 3 & 5 |
| Chapter IV, Section 61 | Requirements relating to emergency unit | Parts 3 & 5 |
| Chapter IV, Section 62 | Requirements relating to supply of food and drinking water | Part 3 |
| Chapter IV, Section 63 | Requirements relating to stability | Part 3/3.2 |
| Chapter IV, Section 64 | Requirements relating to anchoring, mooring and positioning | Part 3/3.2.4 |
| Chapter IV, Section 65 | Requirements relating to turret | Part 3/3.2 |
| Chapter IV, Section 66 | Requirements relating to systems and equipment for manned underwater operations | Part 3/3.9 |
| Chapter IV, Section 67 | Requirements relating to loading and discharging facilities | Part 3/3.4.5 |
| Chapter IV, Section 68 | Requirements relating to handling of waste | Part 3/3.4.5 |
| Chapter IV, Section 69 | Requirements relating to exhaust ducts | Part 3/3.4 |
| Chapter IV, Section 70 | Requirements relating to lifting appliances and lifting gear | Part 3/3.49 |
| Chapter IV, Section 71 | Requirements relating to helicopter decks | Part 3/3.4.8 |

| Chapter IV, Section 72 | Requirements relating to marking of facilities | Part 3 | |
|---------------------------|--|-----------------|--------------|
| Chapter IV, Section 73 | Requirements relating to marking of equipment and cargo | Part 3 | |
| Chapter IV, Section 74 | Requirements relating to lifts | Part 3 | |
| Chapter V, Section 75 | Requirements relating to simple pressure vessels | Part 3 | EU-directive |
| Chapter V, Section 76 | Requirements relating to personal protective equipment | Part 2 & Part 3 | EU-directive |
| Chapter V, Section 77 | Requirements relating to aerosols | Part 2 | EU-directive |
| Chapter V, Section 78 | Requirements relating to EMC | Part 2 & Part 3 | EU-directive |
| Chapter V, Section 79 | Requirements relating to Ex-equipment | Part 3 | EU-directive |
| Chapter V, Section 80 | Requirements relating to ATEX | Part 3 | EU-directive |
| Chapter V, Section 81 | Requirements relating to pressure equipment not comprised by the Facilities Regulations | Part 3/3.4 | |
| Chapter V, Section 82 | Requirements relating to machinery and safety components not comprised by the Facilities Regulations | Part 3/3.4 | |
| Chapter VI, Section 83 | Entry into force | NA | |

Regulations relating to conduct of activities in the petroleum activities, (The activities regulations), last updated 22.12.2005.

| Regulation | Requirement | HSE Case Reference | Other Relevant Regulations |
|----------------------------|---|-------------------------|-------------------------------|
| Chapter I, Section 1 | Requirements relating to systems and other equipment for manned underwater operations from vessels | Part 3/3.9 | |
| Chapter II, Section 2 | Requirements relating to co-ordinating working environment committees for fields, and joint, local working environment committees for mobile facilities | Part 2/2.2 | |
| Chapter II, Section 3 | Requirements relating to safety and health personnel | Parts 2/2.2 & 5 | |
| Chapter II, Section 4 | Requirements relating to provision of medical examinations for employees | Part 2/2.2 | |
| Chapter II, Section 5 | Requirements relating to recording of work hours | Part 2/2.3 & 2.4 | |
| Chapter III, Section 6 | Requirements relating to availability of the health service | Part 2/2.3 | |
| Chapter III, Section 7 | Requirements relating to duties of the health service | Part 2/2.2 &2.3 | |
| Chapter III, Section 8 | Requirements relating to doctor on call | Part 2/2.2 & 2.3 | |
| Chapter III, Section 9 | Requirements relating to medicinal products and medical equipment | Part 2/ 2.2 & 2.3 | |
| Chapter III, Section 10 | Requirements relating to dealing with communicable diseases | Parts 2/2.2, 2.3 & 6 | |
| Chapter III, Section 11 | Requirements relating to food and drinking water | Part 2/2.3 | |
| Chapter III, Section 12 | Requirements relating to general cleaning | Part 2/ 2.2 & 2.3 | |
| Chapter IV, Section 13 | Requirements relating to pre-surveys | Part 2/2.3 | |
| Chapter IV, Section 14 | Requirements relating to installation and commissioning | Part 2/2/2.3 | |

| Chapter V, Section | Requirements relating to | | |
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| | transport | Part 2/2.3 | |
| Chapter V, Section 16 | Requirements relating to stay on facilities | Part 2/2.3 | |
| Chapter V, Section 17 | Requirements relating to accommodation | Part 2/2.3 | |
| Chapter VI-I, Section 18 | Start-up and operation of facilities | Part 2/2.3 | |
| Chapter VI-II, Section 19 | Requirements relating to competence | Part 2/2.2 | |
| Chapter VI-II, Section 20 | Requirements relating to safety and working environment training according to the Working Environment Act | Part 2/2.2 | |
| Chapter VI-II, Section 21 | Practice and exercises | Part 2/2.2 & 2.4 | |
| Chapter VI-III, Section 22 | Requirements relating to procedures | Part 2/2.3 | |
| Chapter VI-IV, Section 23 | Requirements relating to use of facilities | Part 2/2.3 | |
| Chapter VI-IV, Section 24 | Requirements relating to safety systems | Part 2/2.3 | |
| Chapter VI-IV, Section 25 | Requirements relating to critical activities | Part 2/2.3 | |
| Chapter VI-IV, Section 26 | Requirements relating to simultaneous activities | Part 2/2.3 | |
| Chapter VII, Section 27 | Requirements relating to planning | Part 2/2.3 & 2.4 | |
| Chapter VII, Section 28 | Requirements relating to actions during conduct of activities | Part 2/2.3 & 2.4 | |
| Chapter VII, Section 29 | Requirements relating to monitoring and control | Part 2/2.3 & 2.4 | |
| Chapter VII, Section 30 | Requirements relating to transfer of information | Part 2/2.2, 2.3 & 2.4 | |
| Chapter VIII, Section 31 | Requirements relating to arrangement of work | Part 2/2.3 & 2.4 | |
| Chapter VIII, Section 32 | Requirements relating to ergonomic aspects | Part 2/2.3 & 2.4 | |
| Chapter VIII, Section 33 | Requirements relating to psychosocial aspects | Part 2/2.3 & 2.4 | |
| Chapter VIII, Section 34 | Requirements relating to chemical health hazard | Part 2/2.3 & 2.4 | |

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| Chapter VIII, Section 35 | Requirements relating to radiation | Part 2/2.3 & 2.4 | |
| Chapter VIII, Section 36 | Requirements relating to noise and vibrations | Part 2/2.3 & 2.4 | |
| Chapter VIII, Section 37 | Requirements relating to outdoor work | Part 2/2.3 | |
| Chapter VIII, Section 38 | Requirements relating to safety signs and signalling in the workplace | Part 2/2.3 | |
| Chapter VIII, Section 39 | Requirements relating to personal protective equipment | Part 2/2.3 | |
| Chapter VIII, Section 40 | Requirements relating to use of work equipment | Part 2/2.3 | |
| Chapter VIII, Section 41 | Requirements relating to information on risk during conduct of work | Part 2/2.3 | |
| Chapter IX, Section 42 | Requirements relating to maintenance | Part 2/2.3 & 3 | |
| Chapter IX, Section 43 | Requirements relating to classification | Part 2/2.3 & 3 | |
| Chapter IX, Section 44 | Requirements relating to maintenance programme | Part 2/2.3 & 3 | |
| Chapter IX, Section 45 | Requirements relating to planning and priorities | Part 2/2.3 & 3 | |
| Chapter IX, Section 46 | Requirements relating to maintenance effectiveness | Part 2/2.3 | |
| Chapter IX, Section 47 | Requirements relating to specific requirements to condition monitoring of structures and pipeline systems | Part 3 | |
| Chapter IX, Section 48 | Requirements relating to specific requirements to testing of blow out preventer and other pressure control equipment | Part 2/2.3 & 3.3 | |
| Chapter X-I, Section 49 | Requirements relating to cooperation on and planning of monitoring of the external environment | Part 2 | |
| Chapter X-I, Section 50 | Requirements relating to emote measurement of acute pollution | NA | |

| Chapter X-I, Section 51 | Requirements relating to baseline surveys | NA | |
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| Chapter X-I, Section 52 | Requirements relating to environmental monitoring | NA | |
| Chapter X-I, Section 53 | Requirements relating to follow-up surveys | Part 2 & Part 6 | |
| Chapter X-I, Section 54 | Requirements relating to characterisation of oil and chemicals | Part 2 & Part 3 | |
| Chapter X-1I, Section 55 a | Requirements relating to discharge of oil- contaminated water | Part 2 & Part 3 | |
| Chapter X-1I, Section 55 b | Requirements relating to emission to air | Part 2 & Part 3 | |
| Chapter X-II, Section 56 a | Requirements relating to ecotoxicological testing of chemicals | Part 2 | |
| Chapter X-II, Section 56 b | Requirements relating to categorization of chemicals | Part 2 & Part 3 | |
| Chapter X-II, Section 56 c | Requirements relating to environmental assessments | Part 2 & Part 4 | |
| Chapter X-II, Section 56 d | Requirements relating to choice of chemicals | Part 2 & Part 3 | |
| Chapter X-II, Section 57 | Requirements relating to use and discharge of chemicals | Part 2 & Part 3 | |
| Chapter X-II, Section 58 | Requirements relating to chemicals for emergency preparedness | Part 2 & Part 5 | |
| Chapter X-II, Section 59 | Requirements relating to discharge of cuttings, sand and solid particles | Part 3 | |
| Chapter X-II, Section 60 | Requirements relating to discharge from formation testing and cleanup of wells | Part 3 | |
| Chapter X-II, Section 61 | Requirements relating to measuring the quantity of discharged oil, other substances and water | Part 3 | |
| Chapter X-II, Section 62 | Requirements relating to measuring associated fluids discharged with solids | Part 3 | |

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| Requirements relating to waste | Part 3 | |
| Requirements relating to establishing emergency preparedness | Parts 2/2.3 & 5 | |
| Requirements relating to joint use of emergency preparedness resources | Parts 2/2.3 & 5 | |
| Requirements relating to Emergency preparedness organisation | Parts 2 & 5 | |
| Requirements relating to emergency preparedness plans | Parts 2/2.3 & 5 | |
| Requirements relating to handling of situations of hazard and accident | Parts 2/2.3 & 5 | |
| Requirements relating to regional emergency preparedness against acute pollution | Part 5 | |
| Requirements relating to action against acute pollution | Part 2, Part 3 & Part 5 | |
| Requirements relating to communication | Part 2/2.2 & 2.3 | |
| Requirements relating to well programme | Part 2/2.3 | |
| Requirements relating to well location and well path | Part 2/2.3 | |
| Requirements relating to handling of shallow gas | Part 2/2.3 | |
| Requirements relating to monitoring of well parameters | Part 2/2.3 | |
| Requirements relating to well barriers | Part 2/2.3 | |
| Requirements relating to well control | Part 2/2.3 | |
| Requirements relating to controlled well flow | Part 2/2.3 | |
| Requirements relating to securing of wells | Part 2/2.3 | |
| | waste Requirements relating to establishing emergency preparedness Requirements relating to joint use of emergency preparedness resources Requirements relating to Emergency preparedness organisation Requirements relating to emergency preparedness plans Requirements relating to handling of situations of hazard and accident Requirements relating to regional emergency preparedness against acute pollution Requirements relating to action against acute pollution Requirements relating to action against acute pollution Requirements relating to communication Requirements relating to well programme Requirements relating to well location and well path Requirements relating to handling of shallow gas Requirements relating to well barriers Requirements relating to well control Requirements relating to Well control Requirements relating to Well control Requirements relating to Well control | wastePart 3Requirements relating to establishing emergency preparednessParts 2/2.3 & 5Requirements relating to joint use of emergency preparedness resourcesParts 2/2.3 & 5Requirements relating to emergency preparedness organisationParts 2 & 5Requirements relating to emergency preparedness plansParts 2/2.3 & 5Requirements relating to emergency preparedness plansParts 2/2.3 & 5Requirements relating to regional emergency preparedness against acute pollutionPart 2/2.3 & 5Requirements relating to regional emergency preparedness against acute pollutionPart 2. Part 3 & Part 5Requirements relating to communicationPart 2/2.2 & 2.3Requirements relating to well programmePart 2/2.3Requirements relating to well location and well pathPart 2/2.3Requirements relating to well boration of well parametersPart 2/2.3Requirements relating to well boration of well parametersPart 2/2.3Requirements relating to well boration and well pathPart 2/2.3Requirements relating to well barriersPart 2/2.3Requirements relating to well barriersPart 2/2.3Requirements relating to well barriersPart 2/2.3Requirements relating to well controlPart 2/2.3 </td |
| Chapter XIII, Section 80 | Requirements relating to remote operation of pipes and work strings | Part 2/2.3 | |
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| Chapter XIV, Section 81 | Requirements relating to positioning | Part 2/2.3 | |
| Chapter XV, Section 82 | Work on and operation of electrical installations | Part 2/2.3 | |
| Chapter XVI, Section 83 | Lifting operations | Part 2/2.3 | |
| Chapter XVII, Section 84 | Manned underwater operations | Part 2/2.3 | |
| Chapter XVII, Section 85 | Provisions relating to time periods | Part 2/2.3 | |
| Chapter XVII, Section 86 | Entry into force | NA | |

A4.7 GERMANY

 Regulator:
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Revision: 2

Revision Date: 07.08.2006

Safety and Health Document Submission Requirements:

The Safety Case in Germany is called Safety and Health Document. The General Federal Mining Ordinance (BGBI.¹ I S. 1466, 23.10.1995) is the legal basis for this document and describes the requirements concerning handling and content of the document. The Safety and Health Document is comparable with the Safety Case from other North Sea Countries but has another status within the German Legislation. The Safety and Health Document has to be prepared before the work on site begins. However, there is no requirement to submit the Safety and Health Document to the LBEG and no approval of the document is necessary. The document has to be on the installation and in the case of an accident or incident this document has to be made available for the inspectors of the LBEG.

Acceptance Regime:

See above.

Other Information:

According to the Offshore Mining Directive (Offshore Mining Directive, 21.03.1989, BGBI. I S. 2093) the operator can only use platforms in the German Sector of the North Sea after there utilisation has been approved by the competent authority (LBEG). In addition to this further works plans (for example: Completion, Drilling Mud and Waste Handling) need to be approved by the LBEG before the work on site begins. (§§ 55 ff. Federal Mining Law, 13.09.1980, BGBI. I S. 1310).

¹ BGBI. = Bundesgesetzblatt (Official gazette of Federal Law)

GERMAN LEGISLATION

| Regulation | Requirement | HSE Case Ref. |
|-------------------------|---|------------------------|
| Allgemeine Bundes- Berg | verordnung vom 23.10.1995 (BGBI.I S. 1466) | |
| Article 3 (1) Nr. 1 | Identify and evaluate all risks for the workers and present the results of this evaluation | 1.7.3, 4.0, 4.2 |
| Article 3 (1) Nr. 2 | Demonstrate that the appropriate technical, organisational and personal measures are taken for the safety and health of the workers | 2.2, 2.3.2.1 |
| Article 3 (1) Nr. 3 | Demonstrate that workplaces and equipment are properly designed, can be operated safely and are maintained | 2.3.1.4, 2.3.2.4 |
| Article 3 (1) Nr. 4 | Demonstrate that there is an appropriate induction program for the workforce concerning safety and health risks and safety measures | 2.2.4.5 |
| Article 3 (2) Nr. 1 | The risk evaluation under Article 3 (1) Nr. 1 has to consider risks that result out of the design of work places | 2.3.1.3, 2.3.1.4 |
| Article 3 (2) Nr. 2 | The risk evaluation under Article 3 (1) Nr. 1 has to consider risks that result out of the design, selection and use of equipment, as well as the interaction with working material | 1.7.3 |
| Article 3 (2) Nr. 3 | The risk evaluation under Article 3 (1) Nr. 1 has to consider risks that result out of qualification, experience and ability of workers | 2.2.1.3, 4.0 |
| Article 3 (3) Nr. 1 | Revision to the document is necessary whenever a worksite undergoes major alterations, extensions or renovations | 1.5 |
| Article 3 (3) Nr. 2 | Revision to the document is necessary to prevent repetitions of major incidents/accidents | 1.5 |
| Article 3 (4) | The safety and health measures have to be checked regularly to control if they comply with the legislation. The result has to be documented | 2.2.1.7, 6.0 |
| Appendix 3 Nr. 1.1 | Describe the particular sources of danger for the work places which might lead to major accidents | 2.3.1.3 |
| Appendix 3 Nr. 1.2 | The consequences of the danger resulting out of the particular sources of danger have to be evaluated | 1.7.4, 4.2.4 |
| Appendix 3 Nr. 1.3 | The precautions that are necessary to prevent major accidents, to minimize the consequences of accidents, and to abandon the workplace/installation in the case of an emergency, have to be described in detail | 2.3.7, 4.0, 4.2.5, 5.1 |

A4.8 NEW ZEALAND

| Regulator: | New Zealand Petroleum & Minerals |
|------------|---|
| | PO Box 1473 Wellington 6140 New Zealand |
| Telephone: | +64 3 962 6179 |
| Telefax: | +64 4 471 0187 |
| E-Mail: | nzpam@mbie.govt.nz |

Revision: 1

Commencement Date: 30 June 2013

Safety and Health Document Submission Requirements:

The Safety Case requirements are detailed in Part 4 of *Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013:*

http://www.legislation.govt.nz/act/public/2013/0095/latest/DLM5709102.html

Acceptance Regime: See above.

| New Zealand – Health and Safety in Employment (Petroleum Exploration and |
|---|
| Extraction) Regulations 2013 – specifically Schedule 4 "Information Required in |
| Safety Case for Installation" |

| Regulation | Requirement | HSE Case Reference |
|------------|---|-----------------------|
| SCHEDULE 4 | INFORMATION REQUIRED IN SAFETY CASE FOR INSTALLATION | |
| 1 | The name and address of the duty holder for the installation. | Not specified |
| 2 | A description of how the duty holder has taken into account any matters raised by the Secretary in relation to a notice provided under regulation 22(1) or (3). [22(1)/(3) "Operator must give design notice."] | N/A |
| 3 | A summary of how the duty holder complied with regulation 27 in the preparation or revision of a safety case. [27 "Duty holder must consult petroleum workers"] | 2.2.1.2 |
| | SAFETY MANAGEMENT SYSTEM | |
| 4 | A detailed description of the safety management system that provides for all activities that will, or are likely to, take place on, or in connection with, the installation. | 2.0 |
| 5 | The safety management system must address the matters set out in Schedule 1. | 2.0 |
| | INSTALLATION | |
| 6 | In relation to the installation,— | |
| | (a) particulars of all New Zealand and international standards that have been applied, or will be applied, in relation to the installation, or plant used on or in connection with the installation: | 2.2.2.4 |
| | (b) a description, with scale diagrams, of,— | |
| | (i) in relation to a production installation, the intended location of the installation: | N/A |
| | (ii) the main and secondary structure of the installation and its materials: | 3.0 |

New Zealand – Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 – specifically Schedule 4 "Information Required in Safety Case for Installation"

| Regulation | Requirement | HSE Case Reference |
|------------|--|-----------------------|
| | | 3.4 |
| | (iii) the plant and equipment of the installation: | |
| | (iv) the layout and configuration of its plant: | 3.1.3, 3.4 |
| | (v) any designated hazardous areas: | 3.1.3, 3.5.1 |
| | (vi) in relation to a production installation, the connections to any pipeline or installation: | N/A |
| | (vii) in relation to a production installation, any wells to be connected to the installation: | N/A |
| | (c) particulars of the types of operation, and activities in connection with any operation that the installation is capable of performing: | 2.3, 3.1, 4.6 |
| | (d) in relation to an offshore installation, the maximum number of persons expected to be on the installation at any time and for whom accommodation is to be provided: | 2.2.3.6, 3.7 |
| | (e) particulars of the range of operating and environmental conditions within which the installation has been designed to operate and how the installation's structures have been designed and are maintained for the stated operating and environmental conditions: | 3.2, 3.2.1, 4.6 |
| | (f) particulars of the plant and arrangements that will be used to control the pressure in the well and prevent the uncontrolled release of petroleum: | 3.3 |
| | (g) in relation to a production installation, a description of any pipeline with the potential to cause a major accident (where applicable), including details of— | N/A |
| | (i) the fluid that it conveys: | |
| | (ii) its dimensions and layout: | |
| | (iii) its contained volume at declared maximum allowable operating pressure: | |
| | (iv) any apparatus and works intended to secure safety: | |
| | | |

New Zealand – Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 – specifically Schedule 4 "Information Required in Safety Case for Installation"

| Regulation | Requirement | HSE Case Reference |
|------------|---|-----------------------|
| | (h) in relation to an offshore installation, particulars of plant, equipment, and procedures for diving support and hyperbaric rescue: | 3.9 |
| | (i) a description of the areas that have been classified as hazardous, including the rated classification: | 3.5.1 |
| | (j) a description of the systems available for early detection of smoke, fire, accumulations of flammable (and other hazardous) gases, leakages of flammable liquids, and other events that may require emergency response: | 3.5, 5.0 |
| | (k) a description of the arrangements for giving warning of an emergency by audible, and where necessary, visual alarm systems to all petroleum workers on the installation: | 3.4.6 |
| | (I) a description of the arrangements for communication during an emergency— | |
| | (i) between persons on the installation: | 5.2 |
| | (ii) in relation to an offshore installation, between the installation and other installations, supporting aircraft, and vessels: | 5.2 |
| | (iii) between the installation and remote support locations and emergency services: | 5.2 |
| | (m) a description of the measures for limiting the extent of an emergency, including— | |
| | (i) measures to combat fire and explosion; and | 3.5, 5.0 |
| | (ii) emergency shutdown systems; and | 3.5.3, 5.0 |
| | (iii) facilities for the monitoring and control of the emergency and for organizing evacuation: | 3.6, 5.2, 5.4, 5.5 |
| | (n) a description of the measures taken for the protection of petroleum workers from hazards of explosions, fire, heat, smoke, hazardous gas, or fumes during any period while petroleum workers may need to remain on an installation during an emergency: | 3.5, 3.5.6, 5.4 |

New Zealand – Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 – specifically Schedule 4 "Information Required in Safety Case for Installation"

| Regulation | Requirement | HSE Case Reference |
|------------|---|---------------------------|
| | (o) in relation to an offshore installation, a description of the temporary refuge arrangements that offer protection against an escalating major accident: | 3.5, 3.5.6, 5.4 |
| | (p) a description of the evacuation and escape systems. | 3.6, 5.5 |
| | MANAGEMENT OF MAJOR ACCIDENT HAZARDS | |
| 7 | A detailed description of the formal safety assessment for the installation, including a description of— | 4.0, 4.2 |
| | (a) all major accident hazards: | 4.0, 4.2 |
| | (b) an assessment of the risk associated with each major accident hazard: | 4.0, 4.2 |
| | (c) the elimination, prevention, reduction, and mitigation control measures that have been, or will be, taken to reduce the risks to a level that is as low as is reasonably practicable: | 4.0, 4.6 |
| | (d) the performance standards for each control measure: | 4.2.3 |
| | (e) the assurance processes that will be put in place to confirm that the control measure remains fit for purpose: | 4.2.3,4.8.3 |
| | (f) the process used to identify major accident hazards, assess the risks, identify the control measures, and set performance standards. | 4.0 |
| | PERFORMANCE MONITORING | |
| 8 | A description of— | |
| | (a) the arrangements in place for monitoring the management of major accident hazards and other workplace hazards: | 4.8.3 |
| | (b) the arrangements for reporting, analyzing, and learning from incidents and work-related illness: | 2.4.2, 6.2.1 |
| | (c) the arrangements for monitoring and measuring occupational health exposures: | 2.4 |
| | (d) the arrangements in place for independent and competent persons to audit the management of major accident hazards and other workplace hazards: | 2.4, 2.4.5, 4.8.3, 6.3 |
| | (e) the arrangements in place for independent and competent persons to verify that safety-critical elements remain effective: 2.4, 2 | 2.4, 2.4.5, 6.3 |
| | (f) the arrangements in place for the periodic assessment of the installation's integrity. | 3.2.2 |
| | | |



International Association of Drilling Contractors

Appendix 5 to Health, Safety and Environment Case Guidelines for Mobile Offshore Drilling Units

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Appendix 5 Review Status

| Issue | Review Status | Date |
|-------|---|----------------|
| 3.6 | Creation of Appendix 5 "Other Coastal Area Regulations and Codes" | 1 January 2015 |

A5 OTHER COASTAL AREA REGULATIONS AND CODES

This appendix contains information on:

- > Reference index for ISM Code.
- Reference index to OHSAS 18001
- Reference index to API RP 75
- Reference index to USA BSEE SEMS Regulations
- European Union Directive 89/391 (see note below)
- European Union Directive 92/91 (see note below)
- European Union Directive 2013/30/EU (see note below)

***** PLEASE NOTE *****

European Union Directives: for completeness, this appendix also details two historical European Union Directives, but in view of the following statement from the European Union, it does not cross-reference individual articles with the main body of the guideline. As National legislation takes precedence over EU Directives for industry, only they are cross-referenced.

"A Directive is adopted by the European Council in conjunction with the European Parliament or by the Commission alone. A directive is addressed to the Member States, not companies, organisations or industries. Its main purpose is to align national legislation. A directive is binding on the Member States as to the result to be achieved but leaves them the choice of the form and method they adopt to realise the Community objectives within the framework of their internal legal order." (EUR-Lex)

A5.1 INTERNATIONAL SAFETY MANAGEMENT CODE INDEX (ISM CODE)

Regulator: MODU's Flag State Administration

Application:

ISM Code applies to self-propelled mobile offshore drilling units from 1st July 2002.

Submissions/Acceptance:

In consultation with Flag State Administrations authorised representatives.

International Safety Management Code

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|-----------------|---|----------------------|
| Preamble | | |
| 1 | The purpose of this Code is to provide an international standard for the safe management and operation of ships and for pollution prevention. | N/A Information Only |
| 2 | The Assembly adopted resolution A.443 (XI), by which it invited all Governments to take the necessary steps to safeguard the shipmaster in the proper discharge of his responsibilities with regard to maritime safety and the protection of the marine environment. | N/A Information Only |
| 3 | The Assembly also adopted resolution A.680 (17), by which it further recognized the need for appropriate organization of management to enable it to respond to the need of those on board ships to achieve and maintain high standards of safety and environmental protection. | N/A Information Only |
| 4 | Recognizing that no two shipping companies or ship owners are the same, and that ships operate under a wide range of different conditions, the Code is based on general principles and objectives. | N/A Information Only |
| 5 | The Code is expressed in broad terms so that it can have a widespread application. Clearly, different levels of management, whether shore-based or at sea, will require varying levels of knowledge and awareness of the items outlined. | N/A Information Only |
| 6 | The cornerstone of good safety management is commitment from the top. In matters of safety and pollution prevention it is the commitment, competence, attitudes and motivation of individuals at all levels that determines the end result. | 2.1 |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|----------------------|---|----------------------|
| | | |
| Part 1 General | | |
| Part 1.1 Definitions | S | |
| 1.1.1 | "International Safety Management (ISM) Code" means the International Management Code for the Safe Operation of Ships and for Pollution Prevention as adopted by the Assembly, as may be amended by the Organization. | N/A Information Only |
| 1.1.2 | "Company" means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all duties and responsibility imposed by the Code. | 3.1.1 & 3.1.2 |
| 1.1.3 | "Administration" means the Government of the State whose flag the ship is entitled to fly. | 3.1.2 |
| 1.1.4 | "Safety management system" means a structured and documented system enabling Company personnel to implement effectively the Company safety and environmental protection policy. | N/A Information Only |
| 1.1.5 | "Document of Compliance" means a document issued to a Company which complies with the requirements of this Code. | N/A Information Only |
| 1.1.6 | "Safety Management Certificate" means a document issued to a ship which signifies that the Company and its shipboard management operate in accordance with the approved safety management system. | N/A Information Only |
| 1.1.7 | "Objective evidence" means quantitative or qualitative information, records or statements of fact pertaining to safety or to the existence and implementation of a safety management system element, which is based on observation, measurement or test and which can be verified. | N/A Information Only |
| 1.1.8 | "Observation" means a statement of fact made during a safety management audit and substantiated by objective evidence. | N/A Information Only |
| 1.1.9 | "Non-conformity" means an observed situation where objective evidence indicates the non-fulfilment of a specified requirement. | N/A Information Only |
| 1.1.10 | "Major non-conformity" means an identifiable deviation that poses a serious threat to the safety of personnel or the ship or a serious risk to the environment that requires immediate corrective action and includes the lack of effective and | N/A Information Only |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. | |
|---|--|----------------------|--|
| | systematic implementation of a requirement of this Code. | | |
| 1.1.11 | "Anniversary date" means the day and month of each year that corresponds to the date of expiry of the relevant document or certificate. | N/A Information Only | |
| 1.1.12 | "Convention" means the International Convention for the Safety of Life at Sea, 1974, as amended | N/A Information Only | |
| Part 1.2 Objective | s | | |
| 1.2.1 | The objectives of the Code are to ensure safety at sea, prevention of human injury or loss of life, and avoidance of damage to the environment, in particular to the marine environment and to property | 2.1 | |
| 1.2.2 1 to 3 | Safety management objectives of the Company should, inter alia: | 2.1 | |
| | provide for safe practices in ship operation and a safe working environment; | | |
| | establish safeguards against all identified risks; and | | |
| | continuously improve safety management skills of personnel ashore and aboard ships, including preparing for emergencies related both to safety and environmental protection. | | |
| 1.2.3 1 to 2 | The safety management system should ensure: | 2.1 | |
| | compliance with mandatory rules and regulations; and | | |
| | that applicable codes, guidelines and standards recommended by the Organization, Administrations, classification societies and maritime industry organizations are taken into account. | | |
| Part 1.3 Application | on | | |
| 1.3 | The requirements of this Code may be applied to all ships | N/A Information Only | |
| Part 1.4 Functional Requirements for a safety management system | | | |
| 1.4 1 to 6 | Every Company should develop, implement and maintain a safety management system which includes the following functional requirements: | | |
| | 1. a safety and environmental-protection policy; | 2.1 | |
| | instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation; | 2.3 | |
| | defined levels of authority and lines of communication between, and amongst, shore and | 2.2 | |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|---------------------|--|----------------|
| | shipboard personnel; | |
| | procedures for reporting accidents and non- conformities with the provisions of this Code; | 2.4.2 |
| | procedures to prepare for and respond to emergency situations; and | 2.3.3 & Part 5 |
| | procedures for internal audits and management reviews. | 2.4 & 2.5 |
| Part 2 Safety & Env | vironmental Protection Policy | |
| 2.1 | The Company should establish a safety and environmental-protection policy which describes how the objectives given in paragraph 1.2 will be achieved. | 2.1 |
| 2.2 | The Company should ensure that the policy is implemented and maintained at all levels of the organization, both ship-based and shore-based. | 2.1 |
| Part 3 Company Re | esponsibilities & Authority | |
| 3.1 | If the entity that is responsible for the operation of the ship is other than the owner, the owner must report the full name and details of such entity to the Administration. | 2.2.2 |
| 3.2 | The Company should define and document the responsibility, authority and interrelation of all personnel who manage, perform and verify work relating to and affecting safety and pollution prevention. | 2.2.1 & 2.2.2 |
| 3.3 | The Company is responsible for ensuring that adequate resources and shore-based support are provided to enable the designated person or persons to carry out their functions. | 2.2.3 |
| Part 4 Designated | Persons | |
| | To ensure the safe operation of each ship and to provide a link between the Company and those on board, every Company, as appropriate, should designate a person or persons ashore having direct access to the highest level of management. The responsibility and authority of the designated person or persons should include monitoring the safety and pollution-prevention aspects of the operation of each ship and ensuring that adequate resources and shore-based support are applied, as required. | 2.2.1 & 2.2.2 |
| Part 5 Master's Re | sponsibility and Authority | |
| 5.1 1 to 5 | The Company should clearly define and document the master's responsibility with regard to: | 2.2.1 & 2.2.2 |
| | implementing the safety and environmental protection policy of the Company; | 2.2.2 |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|------------------|---|-------------------|
| | motivating the crew in the observation of that policy; | 2.2.1.3, 2.3.9 |
| | issuing appropriate orders and instructions in a clear and simple manner; | 2.2.2.2 & 2.2.2.3 |
| | verifying that specified requirements are observed; and | 2.4 |
| | reviewing the safety management system and reporting its deficiencies to the shore-based management. | 2.4 |
| 5.2 | The Company should ensure that the safety management system operating on board the ship contains a clear statement emphasizing the master's authority. The Company should establish in the safety management system that the master has the overriding authority and the responsibility to make decisions with respect to safety and pollution prevention and to request the Company's assistance as may be necessary | 2.2.1 & 2.2.2 |
| Part 6 Resources | and Personnel | |
| 6.1 1 to 3 | The Company should ensure that the master is: | |
| | properly qualified for command; | 2.2.4 & 2.2.1.4 |
| | fully conversant with the Company's safety management system; and | 2.2.4.3 |
| | given the necessary support so that the master's duties can be safely performed. | 2.2.3.3 |
| 6.2 | The Company should ensure that each ship is manned with qualified, certificated and medically fit seafarers in accordance with national and international requirements. | 2.2.4 |
| 6.3 | The Company should establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented and given. | 2.2.4 |
| 6.4 | The Company should ensure that all personnel involved in the Company's safety management system have an adequate understanding of relevant rules, regulations, codes and guidelines. | 2.2.4.3 |
| 6.5 | The Company should establish and maintain procedures for identifying any training which may be required in support of the safety management system and ensure that such training is provided for all personnel concerned. | 2.2.4.4 |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|--------------------|--|---|
| 6.6 | The Company should establish procedures by which the ship's personnel receive relevant information on the safety management system in a working language or languages understood by them. | 2.2.4.4, 2.3.9 |
| 6.7 | The Company should ensure that the ship's personnel are able to communicate effectively in the execution of their duties related to the safety management system. | 2.3.9 |
| Part 7 Developme | nt of Plans for Shipboard Operations | |
| | The Company should establish procedures for the preparation of plans and instructions, including checklists as appropriate, for key shipboard operations concerning the safety of the ship and the prevention of pollution. The various tasks involved should be defined and assigned to qualified personnel | 2.3.1, 2.3.4, 2.3.12, 2.3.13, 2.3.16, 2.3.17 & 2.3.18 |
| Part 8 Emergency | Preparedness | |
| 8.1 | The Company should establish procedures to identify, describe and respond to potential emergency shipboard situations | 2.3.3 & Part 5 |
| 8.2 | The Company should establish programmes for drills and exercises to prepare for emergency actions. | 2.3.3 & Part 5 |
| 8.3 | The safety management system should provide for measures ensuring that the Company's organization can respond at any time to hazards, accidents and emergency situations involving its ships. | 2.3.3 & Part 5 |
| Part 9 Reports and | d Analysis of non conformities, accident and hazard | occurrences |
| 9.1 | The safety management system should include procedures ensuring that non-conformities, accidents and hazardous situations are reported to the Company, investigated and analysed with the objective of improving safety and pollution prevention | 2.4.2 |
| 9.2 | The Company should establish procedures for the implementation of corrective action. | 2.4 |
| Part 10 Maintenan | ce of the Ship and Equipment | |
| 10.1 | The Company should establish procedures to ensure that the ship is maintained in conformity with the provisions of the relevant rules and regulations and with any additional requirements which may be established by the Company | 2.3.19 & 2.4 |
| 10.2 1 to 4 | In meeting these requirements the Company should ensure that: | 2.3.19 |
| | 1. inspections are held at appropriate intervals; | 2.3.19 & 2.4 |
| | any non-conformity is reported, with its possible cause, if known | 2.3.19 & 2.4 |

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|--------------------------|--|---------------------|
| | 3. appropriate corrective action is taken, and | 2.3.19 & 2.4 |
| | 4. records of these activities are maintained. | 2.3.19 & 2.4 |
| 10.3 | The Company should establish procedures in its safety management system to identify equipment and technical systems the sudden operational failure of which may result in hazardous situations. The safety management system should provide for specific measures aimed at promoting the reliability of such equipment or systems. These measures should include the regular testing of stand-by arrangements and equipment or technical systems that are not in continuous use | 2.3.19 & 2.4 |
| 10.4 | The inspections mentioned in 10.2 as well as the measures referred to in 10.3 should be integrated into the ship's operational maintenance routine. | 2.3.2, 2.3.19 & 2.4 |
| Part 11 Document | tation | |
| 11.1 | The Company should establish and maintain procedures to control all documents and data which are relevant to the safety management system. | 2.2.1.2 |
| 11.2 1 to 3 | The Company should ensure that: | 2.2.1.2 |
| | valid documents are available at all relevant locations; | 2.2.1.2 |
| | changes to documents are reviewed and approved by authorized personnel, and | 2.2.1.2 |
| | 3. obsolete documents are promptly removed. | 2.2.1.2 |
| 11.3 | The documents used to describe and implement the safety management system may be referred to as the Safety Management Manual. Documentation should be kept in a form that the Company considers most effective. Each ship should carry on board all documentation relevant to that ship. | 2.2.1.2 |
| Part 12 Company | Verification, Review and Evaluation | |
| 12.1 | The Company should carry out internal safety audits to verify whether safety and pollution-prevention activities comply with the safety management system. | 2.4 & 2.5 |
| 12.2 | The Company should periodically evaluate the efficiency of and, when needed, review the safety management system in accordance with procedures established by the Company. | 2.4 & 2.5 |
| 12.3 | The audits and possible corrective actions should be carried out in accordance with documented procedures. | 2.4 & 2.5 |
| 12.4 | Personnel carrying out audits should be independent | 2.4 & 2.5 |
| Issue 3.6 – 1 January 20 | 015 | 5-10 |

that ship.

| ISM CODE CLAUSE | REQUIREMENT | HSE CASE REF. |
|---------------------|---|----------------|
| | of the areas being audited unless this is impracticable due to the size and the nature of the Company. | |
| 12.5 | The results of the audits and reviews should be brought to the attention of all personnel having responsibility in the area involved. | 2.4 & 2.5 |
| 12.6 | The management personnel responsible for the area involved should take timely corrective action on deficiencies found | 2.4 & 2.5 |
| Part 13 Certificati | on and Periodical Verification | |
| 13.1 | The ship should be operated by a Company which has been issued with a Document of Compliance or with an Interim Document of Compliance, relevant to | 1.2.12 & 3.1.2 |

Characteristics common to the Safety Management and Ship Security Systems

| CODE | PROVISION | SUMMARY OF PROVISION |
|------|---|---|
| ISM | 4 | The Company shall ensure that the master, the designated person, |
| ISPS | A-6.2 A-11 | the company security officer and the ship security officer are given the necessary support to fulfil their duties and responsibilities. |
| ISM | 5.2 | The Company shall prepare a clear statement emphasizing the |
| ISPS | A-6.1 | master's authority as the person having overriding authority and responsibility to make decisions with respect to the ship's safety and security and to request the assistance of the Company or of any Contracting Government as may be necessary. |
| ISM | 8 | The Company shall establish procedures to identify and describe |
| ISPS | A-9.4.4 / 9 A-13.4 A-10.1.1 A-10.1.2 A-10.1.3 | potential emergency shipboard situations, as well as security threats or breaches of security. The Company shall establish programmes for drills and exercises to prepare for emergency actions and programmes for training, drills and exercises associated with the ship security plan. Records of these activities shall be maintained. |
| ISM | 10 | The Company shall identify which equipment is critical and shall |
| ISPS | A-9.4.15 A-9.4.16 | take specific measures to enhance the reliability of such equipment or systems through regular testing of stand-by arrangements and equipment or technical systems not in continuous use. Likewise, it shall carry out inspections, testing, calibration and maintenance of on-board security equipment. These measures shall be integrated into the ship's operational maintenance routine. |

| CODE | PROVISION | SUMMARY OF PROVISION | |
|------|--|--|--|
| | A-10.1.10 A-12.2.10 | The frequency for testing and calibration of on-board security equipment shall be defined. | |
| ISM | 12.2 | The Company shall periodically evaluate the efficiency of the safety | |
| ISPS | A-9.4.11 A-10.1.6 A-10.1.7 A-10.1.8 | management system and the ship security plan and when needed, review them in accordance with procedures established by the Company. | |
| ISM | 12.4 | Personnel carrying out audits shall be independent of the areas | |
| ISPS | A-9.4.1 | being audited unless this is impracticable owing to the size and nature of the Company. | |
| ISM | 6.6 | The Company shall establish procedures by which the ship's | |
| ISPS | A-10.2 | personnel receive information on the safety management system and the ship security plan in a language or working language that they understand. | |
| ISM | 6.7 | The Company shall ensure that the ship's personnel are able to | |
| ISPS | A-9.4.12 A-10.1.5 | communicate effectively in the execution of their duties related to the safety management system and in reporting security incidents. | |
| ISM | 9 12.6 | The Company shall ensure that non-conformities, potentially hazardous situations, accidents, incidents and deficiencies are | |
| ISPS | A-9.4.12 A-12.2.5 | reported and made known within the system, so that they can be addressed, resolved promptly and measures taken to enhance efficiency. | |

A5.2 OHSAS 18001 – OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM SPECIFICATION - 1999

Standard: Globally recognised Specification

Application: Compliance with this Occupational Health and Safety Assessment Series publication does not of itself confer immunity from legal obligations.

Scope

The Occupational Health and Safety Assessment Series (OHSAS) specification provides guidance on the development of an occupational health and safety (OH&S) management system. It can assist organizations in their efforts to control their OH&S risks and improve their performance. It does not state specific OH&S performance criteria, nor does it give detailed specifications for the design of a management system.

The OHSAS specification is applicable to any organization that wishes to:

- a. establish an OH&S management system to eliminate or minimize risk to employees and other interested parties who may be exposed to OH&S risks associated with their activities;
- b. implement, maintain and continually improve their OH&S management system;
- c. assure themselves of its conformance with their stated OH&S policy;
- d. demonstrate such conformance to others;
- e. seek certification/registration of their OH&S management system by an external organization if desired; or
- f. make a self-determination and declaration of conformance with the OHSAS specification.

All the requirements in the OHSAS specification are intended to be incorporated into the OH&S management system. The extent of their application will depend on such factors as the organizations OH&S policy, the nature of their activities and the risks and complexity of their operations.

| OHSAS 18001 CLAUSE | REQUIREMENT | HSE CASE REF. |
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| Clause 2 – Reference Publication – For information | | N/A Information Only |
| Clause 3 – Term | s and Definitions | N/A Information Only |
| Clause 4 – OH& | S Management System Elements | |
| 4.1 | General requirements: Establish and maintain an OH&S management system, the requirements for which are set out in Clause 4 . | Part 2 |
| 4.2 | Occupational Health & Safety (OH&S) policy: An occupational health and safety policy authorized by top management that clearly states overall health and safety objectives is required along with a commitment to improving health and safety performance. | 2.1 |
| | The policy shall: | |
| | a) be appropriate to the nature and scale of the organization's OH&S risks; | |
| | b) be commitment to continual improvement; | |
| | c) include a commitment to at least comply with current applicable OH&S legislation and with other requirements to which the organization subscribes; | |
| | be documented, implemented and maintained; | |
| | e) be communicated to all employees with the intent that employees are made aware of their individual OH&S obligations; | |
| | f) be available to interested parties; and | |
| | g) be reviewed periodically to ensure that it remains relevant and appropriate. | |
| 4.3 | Planning; | |
| 4.3.1 | Planning for hazard identification, risk assessment and risk control: | 2.3.1, 4.3, 4.4, 4.5, 4.6 & 4.7 |
| | The organization shall establish and maintain procedures for the ongoing identification of hazards, the assessment of risks, and the implementation of necessary control measures. These shall include: routine and non-routine activities; activities of all personnel having access to the workplace (including subcontractors and | |

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| | visitors);facilities at the workplace, whether provided by the organization or others. | |
| | The organization shall ensure that the results of these assessments and the effects of these controls are considered when setting OH&S objectives. The organization shall document and keep this information up to date. | 1.2.2, 1.2.5, 4.7, 4.8 & 4.9 |
| | The methodology for hazard identification and risk assessment shall: be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive; provide for the classification of risks and identification of those that are to be eliminated or controlled by measures as defined in clauses 4.3.3 and 4.3.4; be consistent with operating experience and the capabilities of risk control measures employed; provide input into the determination of facility requirements, identification of training needs and/or development of operational controls; provide for the monitoring of required actions to ensure both the effectiveness and timeliness of their implementation. | 4.2, 4.3, 4.4, 4.5, 4.6 & 4.7 |
| 4.3.2 | Legal and other requirements: The organisation shall establish and maintain a procedure for identifying and accessing the legal and other OH&S requirements that are applicable to it. The organisation shall keep this information up- to-date and communicate relevant information on legal and other requirements to its | 1.2.5 & 1.2.6 |
| 4.3.3 | employees and other relevant interested parties. Objectives: | 2.1.2 |
| | The organisation shall establish and maintain documented occupational health and safety objectives, at each relevant function and level. NOTE Objectives should be quantified wherever practicable. | |
| | When establishing and reviewing its objectives, an organization shall consider its legal and other requirements, its OH&S hazards and risks, its | |

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| | technological options, its financial, operational and business requirements, and the views of interested parties. The objectives shall be consistent with the OH&S policy, including the commitment to continual improvement. | |
| 4.3.4 | OH&S management programme(s): | 1.2.6, 1.2.10, 2.2.1, |
| | The organization shall establish and maintain (an) OH&S management programme(s) for achieving its objectives. This shall include documentation of: a) the designated responsibility and authority for achievement of the objectives at relevant functions and levels of the organization; and b) the means and time-scale by which objectives are to be achieved. The OH&S management programme(s) shall be reviewed at regular and planned intervals. Where necessary the OH&S management programme(s) should be amended to address changes to the activities, products, services, or operating conditions of the organization. | 2.2.2, 2.2.3, 2.4 & 2.5 |
| 4.4 | Implementation and operation | |
| 4.4.1 | Structure and responsibility: | 2.2.1, 2.2.2 & 2.2.3 |
| | The roles, responsibilities and authorities of personnel who manage, perform and verify activities having an effect on the OH&S risks of the organization's activities, facilities and processes, shall be defined, documented and communicated in order to facilitate OH&S management. | |
| | Ultimate responsibility for occupational health and safety rests with top management. The organization shall appoint a member of top management (e.g. a Board or executive committee member) with particular responsibility for ensuring that the OH&S management system is properly implemented and performing to requirements in all locations and spheres of | |

Management shall provide resources essential to the implementation, control and improvement of the OH&S management system.

operation within the organization.

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technology and financial resources.

The organization's management appointee shall have defined roles, responsibilities and authority for:

- ensuring that OH&S management system requirements are established, implemented and maintained in accordance with this OHSAS specification;
- ensuring that reports on the performance of the OH&S management system are presented to top management for review and as a basis for improvement of the OH&S management system.

All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&S performance.

4.4.2 Training, awareness and competence:

Personnel shall be competent to perform tasks that may impact on OH&S in the workplace. Competence shall be defined in terms of appropriate education, training and/or experience.

The organization shall establish and maintain procedures to ensure that its employees working at each level are aware of:

- the importance of conformance to the OH&S policy and procedures, and to the requirements of the OH&S management system;
- the OH&S consequences, actual or potential, of their work activities and the OH&S benefits of improved personal performance;
- their roles and responsibilities in achieving conformance to the OH&S policy and procedures and to the requirements of the OH&S management system, including emergency preparedness and response requirements (see 4.4.7);
- the potential consequences of departure from specified operating procedures.

Training procedures shall take into account differing levels of:

- responsibility, ability and literacy; and
- risk.

2.2.2.3, 2.2.4, 2.3.3, 2.3.8 & 2.3.9,

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| 4.4.3 | Consultation and communication | 2.2.1.3, 2.2.3.2, |
| | The organization shall have procedures for ensuring that pertinent OH&S information is communicated to and from employees and other interested parties. | 2.2.3.3, 2.2.3.4, 2.2.3.5, 2.3.9 & 4.9 |
| | Employee involvement and consultation arrangements shall be documented and interested parties informed. | |
| | Employees shall be: involved in the development and review of policies and procedures to manage risks; consulted where there are any changes that affect workplace health and safety; represented on health and safety matters; and informed as to who is their employee OH&S representative(s) and specified management appointee (see 4.4.1). | |
| 4.4.4 | Documentation | 1.2.2 & 2.2.1.2 |
| | The organization shall establish and maintain information, in a suitable medium such as paper or electronic form, that: a) describes the core elements of the management system and their interaction; and b) provides direction to related documentation. | |
| | NOTE It is important that documentation is kept to the minimum required | |
| 4.4.5 | for effectiveness and efficiency. | 2.2.1.2 |
| 4.4.3 | Document and data control The organization shall establish and maintain procedures for controlling all documents and data required by this OHSAS specification to ensure that: a) they can be located; b) they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel; c) current versions of relevant documents and data are available at all locations where operations essential to the effective functioning of the OH&S system are performed; | 2.2.1.2 |

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| CLAUSE | d) obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against | |
| | unintended use; and c) archival documents and data retained for legal or knowledge preservation purposes or both, are suitably identified. | |
| 4.4.6 | Operational control The organization shall identify those operations and activities that are associated with identified risks where control measures need to be applied. The organization shall plan these activities, including maintenance, in order to ensure that they are carried out under specified conditions by: a) establishing and maintaining documented procedures to cover situations where their absence could lead to deviations from the OH&S policy and the objectives; b) stipulating operating criteria in the procedures; c) establishing and maintaining procedures related to the identified OH&S risks of goods, equipment and services purchased and/or used by the organization and communicating relevant procedures and requirements to suppliers and contractors; b) establishing and maintaining procedures for the design of workplace, process, installations, machinery, operating | 2.3.5, 2.3.8, 2.3.12, 2.3.13, 2.3.15, 2.3.16 & 4.7.3 |
| | procedures and work organization, including their adaptation to human capabilities, in order to eliminate or reduce OH&S risks at their source. | |
| 4.4.7 | Emergency preparedness and response The organization shall establish and maintain plans and procedures to identify the potential for, and responses to, incidents and emergency situations, and for preventing and mitigating the likely illness and injury that may be associated with them | 2.3.3 & Part 5 |

The organization shall review its emergency preparedness and response plans and

with them.

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| GLAUSE | procedures, in particular, after the occurrence of incidents or emergency situations. | |
| | Periodically test such procedures where practicable. | |
| 4.5 | Checking and corrective action | |
| 4.5.1 | Performance measurement and monitoring | 2.4 & Part 6 |
| | The organization shall establish and maintain procedures to monitor and measure OH&S performance on a regular basis. These procedures shall provide for: both qualitative and quantitative measures, appropriate to the needs of the organization; | |
| | monitoring of the extent to which the organization's OH&S objectives are met; proactive measures of performance that monitor compliance with the OH&S management programme, operational criteria and applicable legislation and regulatory requirements; reactive measures of performance to monitor accidents, ill health, incidents (including near-misses) and other historical evidence of deficient OH&S performance; recording of data and results of monitoring and measurement sufficient to facilitate subsequent corrective and preventative action analysis. | |
| | If monitoring equipment is required for performance measurement and monitoring, The organization shall establish and maintain procedures for the calibration and maintenance of such equipment. Records of calibration and maintenance activities and results shall be retained. | |
| 4.5.2 | Accidents, incidents, non-conformances and corrective and preventive action | 2.4.2 & 2.4.3 |
| | The organization shall establish and maintain procedures for defining responsibility and authority for: the handling and investigation of: | |

- the handling and investigation of:
 - accidents;

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- incidents;
- non-conformances;
- taking action to mitigate any consequences arising from accidents, incidents or nonconformances;
- the initiation and completion of corrective and preventive actions;
- confirmation of the effectiveness of corrective and preventive actions taken.

These procedures shall require that all proposed corrective and preventive actions will be reviewed through the risk assessment process prior to implementation.

Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformances shall be appropriate to the magnitude of problems and commensurate with the OH&S risk encountered.

Implement and record any changes in the documented procedures resulting from corrective and preventive action.

4.5.3 **Records and records management**

1.2.10, 2.2.1.2, 2.4 & 2.6

The organization shall establish and maintain procedures for the identification, maintenance and disposition of OH&S records, as well as the results of audits and reviews.

OH&S records shall be legible, identifiable and traceable to the activities involved. OH&S records should be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded.

Records shall be maintained, as appropriate to the system and to the organization, to demonstrate conformance to this OHSAS specification.

4.5.4 Audit

The organization shall establish and maintain an audit programme and procedures for periodic OH&S management system audits to be carried out, in order to:

a) determine whether or not the OH&S

2.4.5 & 6.4

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management system:

- conforms to planned arrangements for OH&S management including the requirements of this OHSAS specification;
- 2). has been properly implemented and maintained; and
- is effective in meeting the organization's policy and objectives;
- b) review the results of previous audits;
- c) provide information on the results of audits to management.

The audit programme, including any schedule, shall be based on the results of risk assessments of the organization's activities, and the results of previous audits. The audit procedures shall cover the scope, frequency, methodologies and competencies, as well as the responsibilities and requirements for conducting audits and reporting results.

Wherever possible, audits shall be conducted by personnel independent of those having direct responsibility for the activity being examined.

NOTE The word "independent" here does not necessarily mean external to the organization.

4.6 Management review

The organization's top management shall, at intervals that it determines, review the OH&S management system, to ensure its continuing suitability, adequacy and effectiveness. The management review process shall ensure that the necessary information is collected to allow management to carry out this evaluation. This review shall be documented.

The management review shall address the possible need for changes to policy, objectives and other elements of the OH&S management system, in the light of OH&S management system audit results, changing circumstances and the commitment to continual improvement. 1.2.12 & 2.5

Corresponding Clauses within International Standards

| | - | | | | |
|--------|--|--------|---|--|---|
| Clause | OHSAS 18001 | Clause | ISO 14001 | Clause | ISO 9001 |
| 1 | Scope | 1 | Scope | 1 | Scope |
| 2 | Reference Publications | 2 | Normative References | 2 | Normative References |
| 3 | Terms and Definitions | 3 | Definitions | 3 | Definitions |
| 4 | OH&S Management System | 4 | Environmental Management System | 4 | Quality System Requirements |
| 4.1 | General Requirements | 4.1 | General Requirements | 4.2.1 | General (1 st sentence) |
| 4.2 | OH&S Policy | 4.2 | Environmental Policy | 4.1.1 | Quality Policy |
| 4.3 | Planning | 4.3 | Planning | 4.2 | Quality System |
| 4.3.1 | Planning for hazard identification, risk assessment and risk control | 4.3.1 | Environmental aspects | 4.2 | Quality System |
| 4.3.2 | Legal and other requirements | 4.3.2 | Legal and other requirements | - | - |
| 4.3.3 | Objectives | 4.3.3 | Objectives and targets | 4.2 | Quality System |
| 4.3.4 | OH&S management programme(s) | 4.3.4 | Environmental management programme(s) | 4.2 | Quality System |
| 4.4 | Implementation and operation | 4.4 | Implementation and operation | 4.2 4.9 | Quality System Process control |
| 4.4.1 | Structure and responsibility | 4.4.1 | Structure and responsibility | 4.1 4.1.2 | Management responsibility Organization |
| 4.4.2 | Training, awareness and competence | 4.4.2 | Training, awareness and competence | 4.18 | Training |
| 4.4.3 | Consultation and communication | 4.4.3 | Communication | - | - |
| 4.4.4 | Documentation | 4.4.4 | Environmental management system documentation | 4.2.1 | General (without 1 st sentence) |
| 4.4.5 | Document and data control | 4.4.5 | Document control | 4.5 | Document and data control |
| 4.4.6 | Operational control | 4.4.6 | Operational control | 4.2.2 4.3 4.4 4.6 4.7 4.8 | Quality system procedures Contract review Design control Purchasing Customer supplied product Product identification and |
| | | | | 4.9 | traceability Process control |
| | | | | 4.15 | Handling, storage, packaging, preservation and delivery |
| | | | | 4.19 | Servicing |
| | | | | 4.20 | Statistical techniques |
| 4.4.7 | Emergency preparedness and response | 4.4.7 | Emergency preparedness and response | - | - |
| 4.5 | Checking and corrective action | 4.5 | Checking and corrective action | - | - |
| 4.5.1 | Performance measurement and monitoring | 4.5.1 | Monitoring and measurement | 4.10 4.11 4.12 | Inspection and testing Control of inspection, measuring and test equipment |
| | | | | 4.12 | Inspection and test status |
| 4.5.2 | Accidents, incidents, non- | 4.5.2 | Non-conformance and | 4.13 | Control of nonconforming |
| | | | | | |

| Clause | OHSAS 18001 | Clause | ISO 14001 | Clause | ISO 9001 |
|--------|---|--------|---------------------------------------|--------|--|
| | conformances and corrective and preventive action | | corrective and preventive action | 4.14 | product Corrective and preventive action |
| 4.5.3 | Records and records management | 4.5.3 | Records | 4.16 | Control of quality records |
| 4.5.4 | Audit | 4.5.4 | Environmental management system audit | 4.17 | Internal quality audits |
| 4.6 | Management review | 4.6 | Management review | 4.13 | Management review |

A5.3 API RP 75 – RECOMMENDED PRACTICE FOR DEVELOPMENT OF A SAFETY AND ENVIRONMENTAL MANAGEMENT PROGRAM FOR OFFSHORE **OPERATIONS AND FACILITIES**

| API RP 75 SECTION [3 RD ED MAY 2004] | | REQUIREMENT | HSE CASE GUIDELINES REF. |
|--|------------------|--|-----------------------------|
| Section 1 General | | | |
| 1.1 PURPOSE AND OBJECTIVE | | | 1.1 |
| 1.1.1 Owners and Operators | develo Manag | P 75 to assist owners and operators in the pment of a Safety and Environmental gement System to promote safety and nmental protection during offshore oil and gas ions | 1.1 |
| 1.1.2 Contractors | and sh and pr | actors should be familiar with operator's SEMP ould have safety and environmental policies actices consistent with operator's SEMP. A og document may be utilized to manage ions | 2.3.12.1 |
| 1.2 MANAGEMENT PRGM ELEMENTS AND PRINCIPLES | | | |
| 1.2.1 Management | The pr | ogram elements address eleven (11) areas. | [List 2.0.1] |
| Program Elements | a. | Safety and environmental information | 2.3.6 , 2.3.7,2.3.8 |
| | b. | Hazards analysis | 2.3.1 |
| | C. | Management of Change | 2.3.2 |
| | d. | Operating Procedure | 2.3.8, See also |
| | | | MODU Code Chpt 14 |
| | | Safe work practices | 2.3.5 |
| | f. | Training | 2.2.4.4 |
| | g. | Quality & mech integrity of critical equipment | 2.3.19 |
| | | Pre-start up review | 2.3.2 |
| | i. | Emergency response and control | 2.3.3 |
| | j. | Investigation of incidents | 2.4.2 |
| | k. | Audit of SEMP elements | 2.4.5 |
| | I. | Documentation and record keeping | 2.2.1.1, (2.6) |
| 1.2.2 Principles | This R | P is based on the following principles: | |
| | a. | Management responsible for overall success of SEMP | 2.0, 2.2.2.1 |
| | b. | Management provides leadership to establish goals and performance measures | 2.0 |
| | C. | Management appoints representatives | 2.2.2.1, 2.2.2.2, |
| Issue 3.6 – 1 January 201 | 5-25 | | |

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| | | responsible for establishing, implementing and maintaining SEMP. | 2.2.2.3 |
| | d. | Management designates representatives responsible to report SEMP performance | 2.2.2.1 |
| | e. | Management reviews SEMP on interval basis for suitability and effectiveness with the view of addressing and documenting needed changes | 1.2.5, 2.5.1 |
| | f. | Management develops written SEMP polices and organizational structure with defined responsibilities | 2.2.1, 2.2.2 |
| | g. | Management utilizes personnel expertise for hazard identification, environmental impact, safe work practices, training programs and incident investigations. | 4.2 |
| | h. | Owner, operator and contractor all have own responsibility to protect personnel and the environment | 2.2.2 |
| | i. | Facility is designed, constructed, operated and maintained per applicable codes, standards, accepted practices and compliant with government regulations | 3.1.2, 3.1.4, 3.2.1, 3.2.2 |
| | j. | Management of safety hazards and environmental impacts integral part of facility | 3.0 |
| | k. | Suitably trained personnel are employed | 2.2.4 |
| | I. | Periodic audits to maintain SEMP and ensure effective performance | 2.4.5, 6.3 |
| | m. | Safety and environmental management enhances performance, protects personnel and property, and the environment by reducing the probability and severity of uncontrolled releases and undesirable events | 2.0 |
| | n. | Human factors considered in design and implementation of SEMP | 2.3.1, 2.3.8, 4.6.2 |
| | | gement is responsible for establishing safety nvironmental goals and performance measures | 2.1.1, 2.2.2 |
| pro | ocec | gement is responsible for establishing dures for both internal and external unications | 3.4.6, 4.8.2, 5.2.3 |

1.2.3 Setting Objectives and

Communication

Goals 1.2.4

1.3 SCOPE

1.3.1 Applications

| 1.3.1.1 | Offshore oil, gas and sulphur facilities that include well drilling, servicing, production and operations. | 4.8.1 |
|---|--|--------------|
| 1.3.1.2 | Operator established and maintains procedure to identify environmental impacts of its activities that it can control and have an influence in order to determine those expected to or can have impacts on environment. | 2.3.6, 4.3 |
| 1.3.1.3 | Toxic substances sometimes handled in OCS operations include H_2S , CL_2 , and NH_3 | 4.3 |
| 1.3.1.4 | Other materials handled in offshore operations (i.e., steam, hot water, certain chemicals, heat transfer fluids, etc) may constitute a safety or environmental hazard if released. | 4.3 |
| 1.4 DEFINITIONS | (Appendix D) | Append 2 |
| 1.5 STANDARDS, REGULATIONS AND REFERENCES | | Append 1 & 4 |
| 1.5.1 Industry Codes, Practices, and Standards | Useful in design, fabrication, installation, layout, operation, inspection, testing and maintenance of facilities (Listed in Appendix B) | Append 1 |
| 1.5.2 Government Codes, Rules, Conventions and Regulations | Federal, State, municipal and local established requirements may influence design, fabrication, installation, layout, operation, inspection, testing and maintenance of facilities. | Append 4 |
| 1.5.3 References | A partial list of references (textbooks, references and technical articles) that have substantial acceptance by industry and governmental bodies are listed in Appendix C. (NOTE: <u>not part of RP</u>) | Append 1 |

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Section 2 SAFETY AND ENVIRONMENTAL INFORMATION

| Section 2 SAFLI | | |
|---|--|--|
| 2.1 GENERAL | The management program should require that a compilation of safety and environmental information be developed and maintained for any facility subject to this RP. | 2.3.1, 2.3.6, 2.3.7, 2.3.8, 4.2.1 |
| 2.2 PROCESS DESIGN INFO | | |
| 2.2.1 | The process design info should include, as appropriate, a simplified process flow diagram and acceptable upper and lower limits, where applicable, for items such as temperature, pressure, flow and composition. (see API RP 14J, which on a MODU is only applicable to a production processing system) | N/A (For production process); 3.3 (Covers drilling process) |
| 2.2.2 | Where original process design info is no longer existent, info may be developed via a hazard analysis in sufficient detail to support the analysis. | 2.3.1 |
| 2.3 MECHANICAL & FACILITIES DESIGN INFO | | |
| 2.3.1 | The mechanical design info should include, as appropriate, piping and instrument diagrams, electrical area classifications, equipment arrangement drawings, design basis of the relief system, description of the alarm, shutdown, and interlock systems, description of the well control systems, and design basis and active fire protection features and systems and emergency evacuation procedures. | Append 3, may not be complete |
| 2.3.2 | The mechanical and design info for MODUs should conform to the applicable requirements of the flag State and Class Society. | 3.1.2 |
| 2.3.3 | The mechanical and design info should be consistent with applicable consensus codes and standards in effect at the time of design. | 3.2.1 |
| 2.3.4 | When original mechanical design info is no longer existent, suitability of equipment design for intended use should be verified and documented based on engineering analysis and prior operating experience. | 2.3.2, 2.3.14 |
| 2.3.5 | Design and installation of new facilities and major modifications should include consideration of human factors. | 2.3.2, 2.3.1.4 |
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| Section 3 HAZAR | D ANA | LYSIS | |
| 3.1 APPLICATION | | anagement program should require that a I analysis be performed for any facility subject RP. | 2.3.1 |
| 3.2 METHODOL- OGY | | | |
| 3.2.1 | approa | d analysis should take an orderly, systemic ach, following one or more methodologies such se recommended in API RP 14J or References 2. | 4.2.2 |
| 3.2.2 | Hazaro | ds Analysis for MODUs | 4.2.2 |
| | a. | For most MODUs this is implicit in the Flag State and Classification Society certification process. | |
| | b. | It may be necessary to perform site-specific hazard analysis for certain operations to assure the MODU is not exposed to condition beyond its designed limits. | |
| 3.3 INITIAL ANALYSIS | | | |
| 3.3.1 | The ha | azard analysis should be performed in order of | NA (Each MODU develops its own |
| | a. | Areas with continuous offshore population | HSE case) |
| | b. | Inventory and flow rate of flammable, toxic or other materials that constitute a safety hazard or environmental impact | |
| | C. | Locations involving simultaneous operations | |
| | d. | Facilities that remove natural gas or handle H_2S | |
| | e. | Facilities with severe operating conditions (i.e. high pressure, highly corrosive fluids, high flow rates, etc) | |
| | f. | Facilities in close proximity to environmentally sensitive areas. | |
| 3.3.2 | | d analysis on new or modified facilities should en special consideration. | NA (Each MODU develops its own HSE case) |
| 3.4 PERIODIC ANALYSIS | updati years f | pement should establish a program for ng hazard analyses (i.e. review intervals of five for high priority facilities and ten years for low of facilities) | 1.2.4, 2.4.1, 6.3 |

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| 3.5 ANALYSIS PERSONNEL | Hazard analysis should be performed by person knowledgeable in engineering, operations, design, process, safety, environmental and other specialties as appropriate. | 4.2.1 |
| 3.6 ANALYSIS REPORT | Findings of hazard analysis should be in a written report, which describes the hazards and the recommended steps to mitigate them (including follow up with a completion report.) | 4.8.1 |

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| Section 4 MANA | GEMENT OF CHANGE | |
| 4.1 GENERAL | Management program should establish procedures to identify and control hazards associated with | 1.2.5, 2.3.2, 2.3.19 |
| 4.2 CHANGE IN FACILITIES | change and maintain the accuracy of safety info. Facility change arises whenever the process or mechanical design is altered; or as a result of changes in produced fluids, process additives, product specifications, by-products or waste products, design inventories, instrumentation and control systems, or materials of construction. | 1.2.5, 2.3.2 |
| 4.3 CHANGE IN PERSONNEL | Change in personnel, including contractor personnel, occurs whenever there is a change in the organization or in personnel that supervise or operate the facility. | 1.2.5, 2.3.2 |
| 4.4 MANAGING THE CHANGES | The Management program should establish and implement written procedures to manage change in facilities and personnel that are flexible enough to accommodate both major and minor changes. | 1.2.5, 2.3.2 |

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| Section 5 OPERA | TING PROCEDURES | |
| 5.1 GENERAL | The Management program should include requirements for written facility operating procedures designed to enhance efficient, safe, and environmentally sound operations. Operating procedures, by design, should directly address human factor issues associated with the interaction between facilities and personnel. | 2.3.1 |
| 5.2 CONTENT OF | Written procedures should include: | 2.3.8 |
| OPERATING PROCEDURES | a. Job title and reporting relationship or each person (s) responsible for each operating area | |
| | Instructions for sound operation of each facility that are consistent with safety and environmental information for : startup, normal operations, temporary operations, simultaneous operations, emergency shutdown and isolation and normal shutdown. | |
| | c. Normal operating limits and, for safety and environmental considerations, the consequences of deviation outside the operating limits, and the steps required for correcting or avoiding a deviation(s) from the operating limits. | |
| | Environmental and occupational safety and health considerations. | |
| 5.3 PERIODIC REVIEW | When changes are made, operating procedures should be reviewed per the management of change procedure. Additionally, periodic reviews, at a frequency to correspond to the degree of hazard, should be undertaken to verify that they reflect the current and actual operating practices. | 1.2.5, 2.3.2 6.2 |

| API RP 75 SECTION [3 RD ED MAY 2004] | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| Section 6 SAFE V | ORK PRACTICES | |
| 6.1 GENERAL | The Management program should establish and implement safe work practices, which should be designed to minimize the risks associated with operating, maintenance, and modification activities and the handling of materials and substances that could affect safety or the environment, taking into account the human factors. Contractors should have their own safe work practices or may adopt portions of the operator's program. In both cases, an agreement prior to work commencing should be reached. | 2.3.5 2.3.12.1 |
| 6.2 SAFE CONDUCT OF WORK ACTIVITIES | Safe work practices for all personnel, including contractors, should provide for the safe conduct of operating, maintenance, and modification activities. Specifically, safe work practices should cover: a. Opening pressurized or energized equipment or piping b. Lock out and tag out of electrical and | 4.0.1 |
| | mechanical energy sources c. Hot work or other ignition source work | |
| | d. Confined space entry | |
| | e. Crane operations | 2.3.15 |
| 6.3 CONTROL OF HAZARDOUS MATERIALS | Materials specifications, inventories, separation, confinement, and handling of toxic or hazmat that can affect safety or environmental protection should be determined, documented, and communicated to appropriate personnel. | 3.4.10 |
| 6.4 CONTRACTOR SELECTION | During contractor selection, operators should obtain and evaluate info regarding a contactor's safety and environmental management policies and practices, and performance there under (Ref: API RP 76). | 2.2.4 |

| API RP 75 SECTION [3 RD ED MAY 2004] | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| Section 7 TRAINI | NG | |
| 7.1 GENERAL | The Management program should establish and implement training programs so that all personnel are trained to work safety and are aware of the environmental considerations offshore, IAW their duties and responsibilities. Training should address operating procedures (Section 5), safe work practices(Section 6), and the emergency response and control measures(Section 10) | 2.2.4 |
| 7.2 INITIAL | TRAINING | |
| 7.2.1 | Certain training elements should be provided for the basic well-being of personnel and the protection of the environment. For example: | 2.2.4.4, 2.2.4.5 |
| | a. Orientation training | |
| | Non-operating emergencies (i.e., rescue and fire-fighting | |
| | c. Circumstantial training (i.e. hotwork, confined space entry, lockout/tagout) | |
| | d. For applicable government regulations | |
| 7.2.2 | Qualification criteria should be developed and implemented for operating and maintenance personnel, as applicable, to ensure they possess the required knowledge and skills to carry out their assigned duties and responsibilities, including start up and shutdown. | 2.2.4.3, 4.6.3 |
| 7.3 PERIODIC TRAINING | Refresher training should be provided to maintain understanding and adherence to current operating procedures. Periodic drills should be established to verify retention of required knowledge and skills. | 2.2.4.5, 5.3.2 |
| 7.4 COMMUNICA- TION | The Management program should require personnel to be trained or otherwise informed before they are expected to operate the facility when changes are made in operating procedures (Section 5), safe work practices (Section 6), or the emergency response and control measures (Section 10). | 2.3.2 |
| 7.5 CONTRACT- OR TRAINING | Contractors should train their personnel in the work practices necessary to perform their jobs in a safe and environmentally sound manner. Training should include site-specific safety and environmental procedures and applicable provisions of the emergency action plans. Incidental service contractors (i.e., janitor, food service, etc) should received safety and emergency evacuation training. | 2.2.4.4 |

API RP 75 SECTION

[3RD ED MAY 2004]

REQUIREMENT

HSE CASE GUIDELINES REF.

Section 8 ASSURANCE OF QUALITY AND MECHANCIAL INTREGRITY OF CRITICAL EQUIPMENT

| 8.1 GENERAL | implen design monito with se | anagement program should develop and nent procedures so that critical equipment is ed, fabricated, installed, tested, inspected, ored, and maintained in a manner consistent ervice requirements, manufacturer's mendations, or industry standards. | 2.3.19 |
|-------------------------------|---------------------------------------|--|--------|
| 8.2 PROCURE- MENT | procur compli | n procedures should be developed for the ement of critical equipment to verify equipment ance with applicable design and material cations. | 3.1.5 |
| 8.3 FABRICATION | for crit implen | n quality control procedures and specifications ical equipment should be established and nented to confirm materials and construction accordance with the design specifications. | 2.4.6 |
| 8.4 INSTALL- ATION | should up to v | briate checks and inspection procedures be established and implemented before start rerify the installation of critical equipment is tent with design specs and manufacturer's tions. | 6.4 |
| 8.5 MAINTEN- ANCE | inspec implen | nance programs that include appropriate tion and testing should be established and nented for critical equipment to sustain ng mechanical integrity. | 2.3.19 |
| 8.6 TESTING AND INSPECTION | progra | g, inspection, calibration and monitoring ms for critical equipment should be shed. These programs should include: | 6.4 |
| | a. | A list of critical equipment | |
| | b. | Testing and inspection procedures | |
| | C. | Documentation of completed testing and inspections | |
| | d. | Procedures to document and correct critical equipment deficiencies or operations outside acceptable limits. | |
| | e. | A system for reviewing and authorizing changes in tests and inspections | |
| | f. | Auditing procedures to ensure compliance with program. | |
| | | | |

API RP 75 SECTION

[3RD ED MAY 2004]

REQUIREMENT

HSE CASE GUIDELINES REF.

Section 9 PRE-START UP REVIEW

| 9.1 GENERAL | The Management program should require that the commissioning process include a pre-startup safety and environmental review for new and significantly modified facilities. Criteria requirements are: | | 2.3.2, (MODUs review their safety case with each operator to |
|-------------------------------------|--|--|---|
| | a. | Construction and equipment within specifications | establish a bridging document prior to each well) |
| | b. | Safety, environmental, operating, maintenance and emergency procedures are in place | |
| | C. | Safety and environmental info is current | |
| | d. | Hazard analysis recommendations have been considered and implemented | |
| | e. | Operating personnel training completed | |
| | f. | Program to address management of change process in place | |
| | g. | Safe work practices in place | |
| | | | |
| API RP 75 SECTION | | REQUIREMENT | HSE CASE |
| [3 RD ED MAY 2004] | | | GUIDELINES REF. |
| Section 10 EME | RGEN | CY RESPONSE AND CONTROL | |
| 10.1 GENERAL | emerg and re be val | lanagement program should require that the gency response and control plans are in place eady for immediate implementation. Plans to idated by drills, which should address nnel readiness and their interaction with the ment. | 2.3.3, 5.1.3, 5.2.2 |
| 10.2 EMERGENCY ACTION PLAN | author | n action plans should be established to assign ity to the appropriately qualified person(s) for ng effective emergency response and control. | 5.1.3, 5.2.1 |
| 10.3 EMERGENCY CONTROL CENTER | An emergency control center (s) should be designated for each facility and include: | | 5.2.1 |
| | a. | Emergency action plans that address: 1) spills of hazardous substance, 2) collision, and 3) fire and/or blowouts | |
| | b. | Oil spill contingency plan | 2.3.6 |
| | C. | Safety and environmental info (Section 2) | |

10.4 TRAININGTraining incorporating emergency response and5.3.1, 5.3.2,Issue 3.6 – 1 January 20155-35

| API RP 75 SECTION [3 RD ED MAY 2004] | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| AND DRILLS | evacuation procedures should be conducted | 5.3.3, 5.5.1, |
| | periodically for all personnel (including contractors). Drill based on realistic scenarios should be | 5.5.2 |
| | conducted periodically to exercise elements or the area emergency action plan. | |
| API RP 75 SECTION [3 RD ED MAY 2004] | REQUIREMENT | HSE CASE GUIDELINES REF. |
| Section 11 INVES | STIGATION OF ACCIDENTS | |
| 11.1 GENERAL | The Management program should establish procedures for investigation of all incidents with serious safety or environmental consequences. A corrective action program should be established based on the findings of the investigation. | 2.4.2, 6.2.1 |
| 11.2 | The investigation of an incident should include: | 6.2.1 |
| INVESTIGATION | a. The nature of the incident | |
| | b. The factors (human or other) that contributed to the initiation or escalation of the incident | |
| | c. Recommended changes identified | |
| 11.3 FOLLOW UP | | 6.2.1 |
| 11.3.1 | The investigation findings should be retained for 2 years for possible use in next hazard analysis update. | No specified time period; will need to be addressed for RP75 |
| 11.3.2 | Management should establish a system to determine and document response to each finding to ensure agree-upon actions are completed | 6.2.1 |
| 11.3.3 | Companies should implement system whereby conclusions of investigations are distributed to similar facilities and/or appropriate personnel | 4.8.2, 6.2.1 |

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API RP 75 SECTION [3RD ED MAY 2004]

Section 12 AUDIT OF SAFETY AND ENVIRONMENTAL MANAGEMENT PROGRAM ELEMENTS

REQUIREMENT

| 12.1 GENERAL | establi procec enviro | berators (and contactors with SEMPs) should ish and maintain an audit program with dures for periodic audits of the safety and nmental management program to determine implementation and maintenance of program nts. | 2.4.5, 6.3 |
|------------------------|------------------------------|--|--|
| 12.2 SCOPE | The so | cope of the audit should: | 6.3 |
| | a. | Determine if program elements are in place | |
| | b. | Determine if program elements incorporate the required components | |
| | C. | Test the system to evaluate the program including a review of records and documentation. | |
| | d. | Identify areas of potential program improvement | |
| 12.3 AUDIT COVERAGE | feature facility manag | y audit selection should consider common es (i.e., field supervisors, regulatory districts, design, systems and equipment, office gement, etc) to obtain a cross section of ces for the facilities operated. | NA (one facility for each HSE Case) |
| 12.AUDIT PLAN | to be f audit i | en plan should be developed that is designed lexible in order to permit change based on nformation gathered and also permit effective resources. The plan should include: | 6.3 |
| | a. | Objectives and scope | |
| | b. | Audit criteria | |
| | C. | Identification of audit team | |
| | d. | Identification of facilities to be audited | |
| | e. | Identification of program elements to be audited | |
| | f. | Procedures to be used in the audit | |
| | g. | Confidentiality requirements | |
| | h. | Report contents and format with expected date of issue and planned distribution. | |

12.5 AUDIT The first audit should be accomplished within 2 years No finite timeframe

| FREQUENCY | of initial management program implementation. Audit intervals should not exceed 4 years. | specified. However, ISM Code has dedicated frequencies of 1 yr and 5 yr audits required |
|----------------------|---|---|
| 12.6 AUDIT TEAM | Personnel from within/without the organization may be used. The audit should be conducted by one or more persons knowledgeable in the process involved and other specialties as necessary. | 6.3, 6.4 |
| 12.7 AUDIT REPORT | An audit report should be prepared that addresses topics in the audit plan. The report will contain the findings and be signed and dated by the team. | 6.3 |

| API RP 75 SECTION [3 RD ED MAY 2004] | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| Section 13 RECO | RDS AND DOCUMENTATION | |
| 13.1 GENERAL | A documentation system for the safety and environmental management program should be established to ensure that records and documents are maintained in a manner sufficient to implement the management system. All records should be dated and readily identifiable. | 2.2.1.1, 2.6 |
| 13.2 DOCUMENTATION | Various elements of the safety and environmental management program identify documentation requirements. Documentation should be sufficient to describe the core elements of the program and the interaction between the elements. | 2.2.1 |
| 13.3 RECORDS | Examples of records that should be maintained are: | 2.6 |
| | i. Info on applicable regulations or other info | 1.2.5, 6.5 |
| | j. Complaint records | Not addressed |
| | k. Training records | 2.2.4.4 |
| | I. Process information | 2.3.8 |
| | m. Product information | 2.3.18 |
| | n. Inspection, maint. & calibration records | 2.3.19, 2.4.4 |
| | o. Pertinent contractor and supplier info | 2.3.12.1 |
| | p. Incident report | 6.2.1 |
| | q. Info on emergency prep and response | 2.3.3, 5.2.1 |
| | r. Info on significant environmental aspects | 2.3.6 |
| | s. Audit results | 6.3 |
| | t. Management reviews | 2.2.3.1, 2.5.1 |
| 13.4 RELATED DOCUMENTATION | Examples of related documentation are: a. Organizational charts b. Internal standards c. Operational procedures d. Site emergency response plan | 2.2.1, 2.2.1.3 Not specified 2.3.19 2.3.3 |
| | e. Site emergency evacuation plan | 2.3.3 |
| | f. Oil spill response plan | 2.3.6 |
| 13.5 RECORD AND DOCUMENT CONTROL | The operator should consider establishing and maintaining procedures for controlling records and documents pertaining to SEMP. | 2.2.1.1 |

| Appendix A | Contractor selection criteria | 2.2.4.2, may need to be modified |
|------------|---|--|
| Appendix B | Industry Codes, Practices and Standards | Append 1 |
| Appendix C | References | Append 1- needs comparison with RP75 |
| Appendix D | Definitions | Append 2- needs comparison with RP75 |
| Appendix E | Performance Measures | Not fully addressed; Needs to be addressed separately for RP75 |

| BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT, 30 CFR 250, SUBPART S, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEMS (SEMS) REGULATIONS | | |
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| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
| Section 1 §250.1909 – Management General Responsibility | Establish goals and performance measures, demand accountability for implementation and provide necessary resources for effective SEMS | 2.0 (& RP75) |
| | Appoint management representatives to establish, implement and maintain effective SEMS | 2.2.2.1, 2.2.2.2, 2.2.2.3 (& RP75) |
| | Designate management representatives that are responsible to report on performance of SEMS program | 2.2.2.1(& RP75) |
| | Review SEMS program at specific intervals (at least annually) review SEMS program to determine suitability, adequateness, and effectiveness. | 1.2.5, 2.5.1 (& RP75) |
| | Develop and endorse written description of safety and environmental policies and organizational structure that define responsibilities, authorities and lines of communication required to implement SEMS program | 2.2.1, 2.2.2 (& RP75) |
| | Utilize personnel with expertise to identify safety hazards, environmental impacts, optimizing operations, developing safe working practices, developing training programs and investigating incidents. | 4.2 (& RP75) |
| | Ensure facilities are designed, constructed, maintained, monitored and operated in compatible manner with industry codes, standards and accepted practices, and in compliance with governmental regulations. | 3.1.2, 3.1.4, 3.2.1, 3.2.2 (& RP75) |
| | Ensure management of safety hazards and environmental impacts are integral part of design, construction, maintenance, operation, and monitoring of facility. | 3.0 (& RP75) |
| | Ensure suitably trained and qualified personnel are employed to carry out SEMS program | 2.2.4 (& RP75) |
| | Ensure SEMS program is maintained and kept up-to-date by periodic audits to | 2.4.5, 6.3 (& RP75) |

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| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
| | ensure effective performance | |
| Section 2 | | 2.3.1, 2.3.6, 2.3.7, |
| §250.1910 – Safety and Environmental Information | Develop and maintain safety and environmental information for SEMS program that includes | 2.3.8, 4.2.1 (& RP75) |
| | a. Information that provides a basis for implementing all SEMS program elements; including requirements for hazard analysis. | 2.3.1 (& RP75) |
| | b. Process design information: including simplified process flow diagram; and acceptable upper and lower limits for items such as temperature, pressure, flow and composition. | 3.3 (drilling process only) (& RP75) |
| | c. Mechanical design information: including piping and instrument diagrams; electrical area classifications; equipment arrangement drawings; design basis of relief system; description of alarm, shutdown and interlock systems; description of well control systems; design basis for passive and active fire protection features and emergency evacuation procedures. | Appendix 3 (may not be complete) (& RP75) |
| Section 3 §250.1911 – Criteria for Hazards Analysis | Develop and implement a hazards analysis (facility) and a job safety analysis (operations/task) for each facility. | 2.3.1, 2.3.4 (& RP75) |
| | Document and maintain current analyses for each operation covered by this section for the life of the operation at the facility. (Analysis must be updated when internal audits conducted). An initial hazard analysis must be performed on or before 15 November 2011. | 4.2, 6.4 (& RP75) |
| | must be performed on or before | |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | - a. Hazards of the operation | 4.2.1 (& RP75) |
| | b. Previous incidents related to the operation; including any incident issued an INC or civil/criminal penalty. | 4.6 |
| | c. Control technology applicable to the operation being evaluated | 1.2.6, 2.3.6 (partial) |
| | d. Qualitative evaluation of possible safety and health effects on employees; and potential impacts to the human and marine environments. | 4.3.3 |
| | Hazard Analysis must be performed by person experienced in the operation being evaluated and have hazard analysis methodology experience. | 4.2.1 (& RP75) |
| | Hazard Analysis recommendation(s) must be resolved with resolution documented | 4.6.3, 4.8.1 |
| | Job Safety Analysis (JSA) must be developed and implemented for OCS activities identified or discussed in SEMS program. | 2.3.4 (partial) |
| | Copy of most recent JSA must be accessible on job site | Not specified |
| | JSA must identify, analyse and record the following: a. Steps involved in performing specific job | |
| | b. Existing or potential safety and health hazards associated with each step | Not specified |
| | c. Recommended procedure to eliminate or reduce hazard and risk of injury or illness | |
| | Supervisor of person-in-charge must approve JSA prior to work commencement. | |
| Section 4 | - Develop and implement MOC | |
| §250.1912 – Management of | procedures for modifications with: a. Equipment | 1.2.5, 2.3.2 (specific |
| Change | b. Operating procedures | areas not covered) |
| | c. Personnel changes (including contractors) | |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | d. Materials | |
| | e. Operating conditions | |
| | Review all changes prior to implementation | Not specified |
| | Include the following in MOC procedures a. Technical basis for change b. Impact of change on safety, health, coastal and marine environments c. Necessary time period to implement d. Management of approval procedures for change | 1.2.5, 2.3.2 (specific areas not covered) |
| Section 5 §250.1913 – Operating Procedures | Develop and implement operating procedures that provide instructions for conducting safe and environmentally sound activities for each operation in SEMS program. | 2.3 |
| | Operating procedures need to be accessible to all involved in operation(s) | 2.3.13 |
| | Operating procedures must be reviewed periodically to ensure they remain current | 1.2.5, 2.3.2, 6.2 |
| | Develop and implement environmentally sound work practices for identified hazards | 2.3.6 |
| | Review of procedure changes need to be documented and communicated to responsible personnel. | 2.3.2 |
| Section 6 §250.1914 – Safe Work Practices | Establish and implement safe work practices for operation, maintenance and modification activities and the handling of materials/substances that could affect safety or environment. | 2.3.5, 2.3.12.1 (& RP75) |
| | Contractor selection must include evaluation of their safety and environmental performance. Contractor must have their own written safe practices. Operator must document their agreement on appropriate contractor safety and environmental | 2.3.5, 2.2.4 |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | policies and practices prior to work commencement. | |
| | Document contracted employees are experienced and knowledgeable in work practices to perform their job safely in and environmentally sound manner. Copy available to BOEMRE upon request | 2.2.4 |
| | SEMS program to include procedures and verification for contractor selection to include: | |
| | a. Procedures to verify contractor conducting their activities IAW SEMS program | Not specified |
| | b. Contractors have skills and knowledge for duties assigned. | 2.2.4 |
| | c. Results of contractor selection verification available to BOEMRE upon request | Not specified |
| | d. Perform periodic evaluations of contractor employee performance | 4.1 |
| | e. Maintain contractor employee injury and illness log for 2 years (include info on Form MMS-131) | Not specified |
| | f. Inform contractors of any known hazards at facility | 4.8 |
| | g. Develop and implement safe work practices to control employee presence, entrance and exit in operation areas. | Not specified |
| Section 7 §250.1915 – Training | Establish and implement training program so all personnel are trained to work safely and are aware of environmental considerations related to their duties and responsibilities. Training to address operating procedures, safe work practices, and emergency response and control measures.) | 2.2.4 (& RP75) |
| | - Document qualifications of instructors | Not specified |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | SEMS program to include: a. Initial training | 2.2.4.4, 2.2.4.5 |
| | b. Periodic training | 2.2.4.5,5.3.2 |
| | | (& RP75) |
| | c. Communication requirements to manage changes | 2.3.2 |
| | d. Verify contractors are trained | 2.2.4 |
| Section 8 §250.1916 – Assurance of Quality and Mechanical Integrity of Critical Equipment | Develop and implement written procedures that provide instructions to ensure the mechanical integrity and safe operation of equipment through inspection, testing and quality assurance thereby ensuring "fit-for- purpose." | 2.3.19 (& RP75) |
| | The mechanical integrity program must encompass: a. Design, procurement, fabrication, installation, calibration, and maintenance of equipment IAW Manufacturer's specs | 3.1.5 |
| | b. Employee training regarding maintaining equipment | 2.2.4.4 (partial) |
| | c. Frequency of inspections and tests.(IAW BOEMRE regulations and the manufacturer's recommendations.) | 2.4.1, 6.2 (partial) |
| | d. Documentation of each inspection and test performed. | 6.4 (partial) |
| | e. Timely correction of equipment deficiencies. | Not specified |
| | Installation of new equipment with verification. | 2.3.19 (partial) |
| | g. Modification of existing equipment. | 2.3.19 (partial) |
| | h. Verification of suitable spare parts and materials for maintenance. | Not specified |
| Section 9 §250.1917 – Pre-Start Up | Requires a commissioning process for new and significantly modified facilities to confirm the following: | Not specified |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| Review | a. Construction and equip IAW specifications. | |
| | b. Safety, environmental, operating, maintenance, emergency procedures are in place. | |
| | c. Safety and environmental info is current | |
| | d. Hazard analysis recommendations implemented e. Training of operating personnel completed | |
| | f. Programs to address MOC in place. | |
| Section 10 §250.1918 – Emergency Response and Control | Requires that emergency response and control plans are in place and validated by drills per SEMS program schedule. Plans must include: | 2.3.3, 5.1.3, 5.2.2 (&RP75) |
| | a. Emergency Action Plan that | 5.1.3, 5.2.1 |
| | assigns qualified persons at facility | (& RP 75) |
| | b. Emergency Control center for facility | 5.2.1 (& RP75) |
| | c. Training and drills, which have realistic scenarios, and also incorporate evacuation procedures. Analysis and critique of each drill. | 5.3.1, 5.3.2, 5.3.3, 5.5.1, 5.5.2 (& RP75) |
| Section 11 §250.1919 – Investigation of Accidents | Establish procedures for prompt investigation of all incidents with serious safety or environmental consequences. The investigation must address: a. Nature of incident b. Human or other factors that | 2.4.2, 6.2.1 (& RP75) |
| | c. Recommended changes to procedures | |
| | Establish a corrective action program to analyze root causes. Program should include: | 6.2.1 (partial) |
| | a. Findings of | |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | investigation b. Documented response | |
| | c. Distribution of conclusions | |
| Section 12 | | |
| §250.1920, 1924, & 1925 – Audit of Safety and Environmental Management Program Elements | Comprehensive audit conducted by third party or designated and qualified person within 2 years of initial implementation and 3 years hence. | 2.4.5, 6.3 (& RP75) |
| | Audit plan must meet/exceed API RP75, Section 12 | Not specified |
| | BOEMRE (or rep) will visit / evaluate facility to determine effectiveness of SEMS program. | Not specified |
| | BOEMRE must be notified 30 days prior to conducting an audit of facility. | Not specified |
| | BOEMRE may direct independent third-party audit | Not specified |
| | Audits must be submitted to BOEMRE within 30 days of audit completion | Not specified |
| | BOEMRE is to be provided a copy of the plan to address deficiencies, if findings from audits result in enforcement actions. | Not specified |
| Section 13 §250.1928 – Records and Documentation | SEMS program procedures must ensure that records are maintained for 6 years (esp audits). Copy of SEMS program documents must be maintained at an onshore facility. | Not specified |
| | Person in charge must document results of JSAs in writing and maintain them on facility for 30 days; these records must be retained and available to BOEMRE for 2 years. | Not specified |
| | MOC provisions must be documented and dated and retained and available to BOEMRE for 2 years. | Not specified |

| CFR SECTION | REQUIREMENT | HSE CASE GUIDELINES REF. |
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| | Injury and illness log must be retained and available to BOEMRE for 2 years. | Not specified |
| | Evaluations on contractor safety policies and procedures must be retained and available to BOEMRE for 2 years. | Not specified |
| | All records must be in orderly manner, easily identifiable, retrievable, and legible; and include the date of any and all revisions. | Not specified |
| AD | DITIONAL BOEMRE PROVISIONS FOR SEMS PRO | OGRAM |
| | AS PER THE FINAL RULE | |
| | Recordkeeping and Documentation regarding specification of the amount of time records are to be kept. | Not specified |
| | Clarification of the differences between hazards analysis(facility level) and job safety analysis (task level) | Not specified |
| | Procedures to verify that contractors are conducting their activities IAW the operator's SEMS program and an evaluation ot ensure that contractors have the skills and knowledge to perform their assigned duties | Not specified |
| | An independent third party or your designated and qualified personnel must conduct all SEMS audits | Not specified |
| | Audit documentation must be submitted to BOEMRE | Not specified |
| | Other documentation must be submitted to BOEMRE | Not specified |
| | Other documentation to be made available to BOEMRE upon request | Not specified |
| | - OCS performance measures data (Form MMS-131) | Not specified |

A5.5 EUROPEAN DIRECTIVES

The Directives listed below are for historical reference purposes only. Legislation detailed within sections A4.2 – The Netherlands; A4.3 – Denmark; A4.4 – United Kingdom; and A4.6 – Germany takes precedence over the articles listed below which have been incorporated into national legislation. It is that legislation that must be complied with, these articles are for European Member State use only.

| | ective 89/391/EEC of 12 June 1989 on the introduction of measures to irage improvements in the safety and health of workers at work Official Journal L 183 , 29/06/1989 P. 0001 - 0008 |
|---------------|---|
| Article | Description |
| SECTION I - C | GENERAL PROVISIONS |
| Article 1 | Object |
| | The object of this Directive is to introduce measures to encourage improvements in the safety and health of workers at work. |
| | 2. To that end it contains general principles concerning the prevention of occupational risks, the protection of safety and health, the elimination of risk and accident factors, the informing, consultation, balanced participation in accordance with national laws and/or practices and training of workers and their representatives, as well as general guidelines for the implementation of the said principles. |
| | This Directive shall be without prejudice to existing or future national and Community provisions, which are more favourable to protection of the safety and health of workers at work. |
| Article 2 | Scope |
| | This Directive shall apply to all sectors of activity, both public and private (industrial, agricultural, commercial, administrative, service, educational, cultural, leisure, etc.). |
| | This Directive shall not be applicable where characteristics peculiar to certain specific public service activities, such as the armed forces or the police, or to certain specific activities in the civil protection services inevitably conflict with it. |
| | In that event, the safety and health of workers must be ensured as far as possible in the light of the objectives of this Directive. |
| Article 3 | Definitions |
| | For the purposes of this Directive, the following terms shall have the following meanings: |
| | (a). worker: any person employed by an employer, including trainees and apprentices but excluding domestic servants; |
| | (b). employer: any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/or establishment; |
| | (c). workers' representative with specific responsibility for the safety and health of workers: any person elected, chosen or designated in accordance with national laws and/or practices to represent |

workers where problems arise relating to the safety and health

protection of workers at work;

- (d). prevention: all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks.
- Article 4
 1. Member States shall take the necessary steps to ensure that employers, workers and workers' representatives are subject to the legal provisions necessary for the implementation of this Directive.
 - **2.** In particular, Member States shall ensure adequate controls and supervision.

SECTION II - EMPLOYERS' OBLIGATIONS

Article 5 General provision

- 1. The employer shall have a duty to ensure the safety and health of workers in every aspect related to the work.
- 2. Where, pursuant to Article 7 (3), an employer enlists competent external services or persons, this shall not discharge him from his responsibilities in this area.
- 3. The workers' obligations in the field of safety and health at work shall not affect the principle of the responsibility of the employer.
- 4. This Directive shall not restrict the option of Member States to provide for the exclusion or the limitation of employers' responsibility where occurrences are due to unusual and unforeseeable circumstances, beyond the employers' control, or to exceptional events, the consequences of which could not have been avoided despite the exercise of all due care.

Member States need not exercise the option referred to in the first subparagraph.

Article 6 General obligations on employers

1. Within the context of his responsibilities, the employer shall take the measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means.

The employer shall be alert to the need to adjust these measures to take account of changing circumstances and aim to improve existing situations.

- 2. The employer shall implement the measures referred to in the first subparagraph of paragraph 1 on the basis of the following general principles of prevention:
 - (a) avoiding risks;
 - (b) evaluating the risks which cannot be avoided:
 - (C) combating the risks at source;
 - (d) adapting the work to the individual, especially as regards the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health.
 - (e) adapting to technical progress;
 - (f) replacing the dangerous by the non-dangerous or the less dangerous;
 - (g) developing a coherent overall prevention policy which covers technology, organization of work, working conditions, social relationships and the influence of factors related to the working

environment;

- (h) giving collective protective measures priority over individual protective measures;
- (i) giving appropriate instructions to the workers.
- 3. Without prejudice to the other provisions of this Directive, the employer shall, taking into account the nature of the activities of the enterprise and/or establishment:
 - (a). evaluate the risks to the safety and health of workers, inter alia in the choice of work equipment, the chemical substances or preparations used, and the fitting-out of work places.

Subsequent to this evaluation and as necessary, the preventive measures and the working and production methods implemented by the employer must:

- assure an improvement in the level of protection afforded to workers with regard to safety and health,
- be integrated into all the activities of the undertaking and/or establishment and at all hierarchical levels;
- (b). where he entrusts tasks to a worker, take into consideration the worker's capabilities as regards health and safety;
- (c). ensure that the planning and introduction of new technologies are the subject of consultation with the workers and/or their representatives, as regards the consequences of the choice of equipment, the working conditions and the working environment for the safety and health of workers;
- (d). take appropriate steps to ensure that only workers who have received adequate instructions may have access to areas where there is serious and specific danger.
- 4. Without prejudice to the other provisions of this Directive, where several undertakings share a work place, the employers shall cooperate in implementing the safety, health and occupational hygiene provisions and, taking into account the nature of the activities, shall coordinate their actions in matters of the protection and prevention of occupational risks, and shall inform one another and their respective workers and/or workers' representatives of these risks.
- 5. Measures related to safety, hygiene and health at work may in no circumstances involve the workers in financial cost.

Article 7

Protective and preventive services

- 1. Without prejudice to the obligations referred to in Articles 5 and 6, the employer shall designate one or more workers to carry out activities related to the protection and prevention of occupational risks for the undertaking and/or establishment.
- Designated workers may not be placed at any disadvantage because of their activities related to the protection and prevention of occupational risks.

Designated workers shall be allowed adequate time to enable them to fulfil their obligations arising from this Directive.

3. If such protective and preventive measures cannot be organized for lack of competent personnel in the undertaking and/or establishment, the

employer shall enlist competent external services or persons.

- 4. Where the employer enlists such services or persons, he shall inform them of the factors known to affect, or suspected of affecting, the safety and health of the workers and they must have access to the information referred to in Article 10 (2).
- 5. In all cases:
 - the workers designated must have the necessary capabilities and the necessary means,
 - the external services or persons consulted must have the necessary aptitudes and the necessary personal and professional means, and
 - the workers designated and the external services or persons consulted must be sufficient in number

to deal with the organization of protective and preventive measures, taking into account the size of the undertaking and/or establishment and/or the hazards to which the workers are exposed and their distribution throughout the entire undertaking and/or establishment.

6. The protection from, and prevention of, the health and safety risks which form the subject of this Article shall be the responsibility of one or more workers, of one service or of separate services whether from inside or outside the undertaking and/or establishment.

The worker(s) and/or agency(ies) must work together whenever necessary.

- 7. Member States may define, in the light of the nature of the activities and size of the undertakings, the categories of undertakings in which the employer, provided he is competent, may himself take responsibility for the measures referred to in paragraph 1.
- 8. Member States shall define the necessary capabilities and aptitudes referred to in paragraph 5.

They may determine the sufficient number referred to in paragraph 5.

First aid, fire-fighting and evacuation of workers, serious and imminent danger

- 1. The employer shall:
 - take the necessary measures for first aid, fire-fighting and evacuation of workers, adapted to the nature of the activities and the size of the undertaking and/or establishment and taking into account other persons present,
 - arrange any necessary contacts with external services, particularly as regards first aid, emergency medical care, rescue work and fire-fighting.
- 2. Pursuant to paragraph 1, the employer shall, inter alia, for first aid, firefighting and the evacuation of workers, designate the workers required to implement such measures.

The number of such workers, their training and the equipment available to them shall be adequate, taking account of the size and/or specific hazards of the undertaking and/or establishment.

- 3. The employer shall:
 - (a) as soon as possible, inform all workers who are, or may be, exposed to serious and imminent danger of the risk involved and of the steps taken or to be taken as regards protection;
 - (b) take action and give instructions to enable workers in the event of serious, imminent and unavoidable danger to stop work and/or

Article 8

immediately to leave the work place and proceed to a place of safety;

- (c) save in exceptional cases for reasons duly substantiated, refrain from asking workers to resume work in a working situation where there is still a serious and imminent danger.
- 4. Workers who, in the event of serious, imminent and unavoidable danger, leave their workstation and/or a dangerous area may not be placed at any disadvantage because of their action and must be protected against any harmful and unjustified consequences, in accordance with national laws and/or practices.
- 5. The employer shall ensure that all workers are able, in the event of serious and imminent danger to their own safety and/or that of other persons, and where the immediate superior responsible cannot be contacted, to take the appropriate steps in the light of their knowledge and the technical means at their disposal, to avoid the consequences of such danger.

Their actions shall not place them at any disadvantage, unless they acted carelessly or there was negligence on their part.

Article 9 Various obligations on employers

- 1. The employer shall:
 - (a) be in possession of an assessment of the risks to safety and health at work, including those facing groups of workers exposed to particular risks;
 - (b) decide on the protective measures to be taken and, if necessary, the protective equipment to be used;
 - (c) keep a list of occupational accidents resulting in a worker being unfit for work for more than three working days;
 - (d) draw up, for the responsible authorities and in accordance with national laws and/or practices, reports on occupational accidents suffered by his workers.
- 2. Member States shall define, in the light of the nature of the activities and size of the undertakings, the obligations to be met by the different categories of undertakings in respect of the drawing-up of the documents provided for in paragraph 1 (a) and (b) and when preparing the documents provided for in paragraph 1 (c) and (d).

Article 10 Worker information

- The employer shall take appropriate measures so that workers and/or their representatives in the undertaking and/or establishment receive, in accordance with national laws and/or practices which may take account, inter alia, of the size of the undertaking and/or establishment, all the necessary information concerning:
 - (a) the safety and health risks and protective and preventive measures and activities in respect of both the undertaking and/or establishment in general and each type of workstation and/or job;
 - (b) the measures taken pursuant to Article 8 (2).
- 2. The employer shall take appropriate measures so that employers of workers from any outside undertakings and/or establishments engaged in work in his undertaking and/or establishment receive, in accordance with national laws and/or practices, adequate information concerning

the points referred to in paragraph 1 (a) and (b) which is to be provided to the workers in question.

- 3. The employer shall take appropriate measures so that workers with specific functions in protecting the safety and health of workers, or workers' representatives with specific responsibility for the safety and health of workers shall have access, to carry out their functions and in accordance with national laws and/or practices, to:
 - (a) the risk assessment and protective measures referred to in Article 9(1) (a) and (b);
 - (b) the list and reports referred to in Article 9 (1) (c) and (d);
 - (c) the information yielded by protective and preventive measures, inspection agencies and bodies responsible for safety and health.

Article 11 Consultation and participation of workers

1. Employers shall consult workers and/or their representatives and allow them to take part in discussions on all questions relating to safety and health at work.

This presupposes:

- the consultation of workers,
- the right of workers and/or their representatives to make proposals,
- balanced participation in accordance with national laws and/or practices.
- 2. Workers or workers' representatives with specific responsibility for the safety and health of workers shall take part in a balanced way, in accordance with national laws and/or practices, or shall be consulted in advance and in good time by the employer with regard to:
 - (a) any measure which may substantially affect safety and health;
 - (b) the designation of workers referred to in Articles 7 (1) and 8 (2) and the activities referred to in Article 7 (1);
 - (c) the information referred to in Articles 9 (1) and 10;
 - (d) the enlistment, where appropriate, of the competent services or persons outside the undertaking and/or establishment, as referred to in Article 7 (3);
 - (e) the planning and organization of the training referred to in Article 12.
- 3. Workers' representatives with specific responsibility for the safety and health of workers shall have the right to ask the employer to take appropriate measures and to submit proposals to him to that end to mitigate hazards for workers and/or to remove sources of danger.
- 4. The workers referred to in paragraph 2 and the workers' representatives referred to in paragraphs 2 and 3 may not be placed at a disadvantage because of their respective activities referred to in paragraphs 2 and 3.
- 5. Employers must allow workers' representatives with specific responsibility for the safety and health of workers
- 6. adequate time off work, without loss of pay, and provide them with the necessary means to enable such representatives to exercise their rights and functions deriving from this Directive.
- 7. Workers and/or their representatives are entitled to appeal, in accordance with national law and/or practice, to the authority responsible for safety and health protection at work if they consider that the measures taken and the means employed by the employer are

inadequate for the purposes of ensuring safety and health at work.

8. Workers' representatives must be given the opportunity to submit their observations during inspection visits by the competent authority.

Article 12

Training of workers

- 1. The employer shall ensure that each worker receives adequate safety and health training, in particular in the form of information and instructions specific to his workstation or job:
 - on recruitment,
 - in the event of a transfer or a change of job,
 - in the event of the introduction of new work equipment or a change in equipment,
 - in the event of the introduction of any new technology.

The training shall be:

- adapted to take account of new or changed risks, and
- repeated periodically if necessary.
- 2. The employer shall ensure that workers from outside undertakings and/or establishments engaged in work in his undertaking and/or establishment have in fact received appropriate instructions regarding health and safety risks during their activities in his undertaking and/or establishment.
- 3. Workers' representatives with a specific role in protecting the safety and health of workers shall be entitled to appropriate training.
- 4. The training referred to in paragraphs 1 and 3 may not be at the workers' expense or at that of the workers' representatives.

The training referred to in paragraph 1 must take place during working hours.

The training referred to in paragraph 3 must take place during working hours or in accordance with national practice either within or outside the undertaking and/or the establishment.

SECTION III - WORKERS' OBLIGATIONS

- Article 13
 1. It shall be the responsibility of each worker to take care as far as possible of his own safety and health and that of other persons affected by his acts or Commissions at work in accordance with his training and the instructions given by his employer.
 - 2. To this end, workers must in particular, in accordance with their training and the instructions given by their employer:
 - (a) make correct use of machinery, apparatus, tools, dangerous substances, transport equipment and other means of production;
 - (b) make correct use of the personal protective equipment supplied to them and, after use, return it to its proper place;
 - (c) refrain from disconnecting, changing or removing arbitrarily safety devices fitted, e.g. to machinery, apparatus, tools, plant and buildings, and use such safety devices correctly;
 - (d) immediately inform the employer and/or the workers with specific responsibility for the safety and health of workers of any work situation they have reasonable grounds for considering represents a serious and immediate danger to safety and health and of any

shortcomings in the protection arrangements;

- (e) cooperate, in accordance with national practice, with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable any tasks or requirements imposed by the competent authority to protect the safety and health of workers at work to be carried out;
- (f) cooperate, in accordance with national practice, with the employer and/or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable the employer to ensure that the working environment and working conditions are safe and pose no risk to safety and health within their field of activity.

SECTION IV - MISCELLANEOUS PROVISIONS

Article 14 Health surveillance

- 1. To ensure that workers receive health surveillance appropriate to the health and safety risks they incur at work, measures shall be introduced in accordance with national law and/or practices.
- 2. The measures referred to in paragraph 1 shall be such that each worker, if he so wishes, may receive health surveillance at regular intervals.
- 3. Health surveillance may be provided as part of a national health system.

Article 15 Risk groups

Particularly sensitive risk groups must be protected against the dangers which specifically affect them.

Article 16 Individual Directives - Amendments -General scope of this Directive

- 1. The Council, acting on a proposal from the Commission based on Article 118a of the Treaty, shall adopt individual Directives, inter alia, in the areas listed in the Annex.
- 2. This Directive and, without prejudice to the procedure referred to in Article 17 concerning technical adjustments, the individual Directives may be amended in accordance with the procedure provided for in Article 118a of the Treaty.
- 3. 3. The provisions of this Directive shall apply in full to all the areas covered by the individual Directives, without prejudice to more stringent and/or specific provisions contained in these individual Directives.

Article 17 Committee

- 1. For the purely technical adjustments to the individual Directives provided for in Article 16 (1) to take account of:
 - the adoption of Directives in the field of technical harmonization and standardization, and/or
 - technical progress, changes in international regulations or specifications, and new findings, the Commission shall be assisted by a committee composed of the representatives of the Member States and chaired by the representative of the Commission.
- 2. The representative of the Commission shall submit to the committee a draft of the measures to be taken.

The committee shall deliver its opinion on the draft within a time limit which

the chairman may lay down according to the urgency of the matter. The opinion shall be delivered by the majority laid down in Article 148 (2) of the Treaty in the case of decisions which the Council is required to adopt on a proposal from the Commission.

The votes of the representatives of the Member States within the committee shall be weighted in the manner set out in that Article. The chairman shall not vote.

3. The Commission shall adopt the measures envisaged if they are in accordance with the opinion of the committee.

If the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is delivered, the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken. The Council shall act by a qualified majority.

If, on the expiry of three months from the date of the referral to the Council, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 18 Final provisions

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 1992.

They shall forthwith inform the Commission thereof.

- 2. Member States shall communicate to the Commission the texts of the provisions of national law which they have already adopted or adopt in the field covered by this Directive.
- 3. Member States shall report to the Commission every five years on the practical implementation of the provisions of this Directive, indicating the points of view of employers and workers.

The Commission shall inform the European Parliament, the Council, the Economic and Social Committee and the Advisory Committee on Safety, Hygiene and Health Protection at Work.

4. The Commission shall submit periodically to the European Parliament, the Council and the Economic and Social Committee a report on the implementation of this Directive, taking into account paragraphs 1 to 3.

Article 19 This Directive is addressed to the Member States.

Done at Luxembourg, 12 June 1989.

For the Council

The President

M. CHAVES GONZALES

- (1) OJ No C 141, 30. 5. 1988, p. 1.
- (2) OJ No C 326, 19. 12. 1988, p. 102, and OJ No C 158, 26. 6. 1989.
- (3) OJ No C 175, 4. 7. 1988, p. 22.(4) OJ No C 28, 3. 2. 1988, p. 3.
- (5) OJ No C 28, 3. 2. 1988, p. 1.(6) OJ No L 327, 3. 12. 1980, p. 8.
- (7) OJ No L 356, 24. 12. 1988, p. 74.
- (8) OJ No L 185, 9. 7. 1974, p. 15.
- ANNEX List of areas referred to in Article 16 (1)
 - Work places
 - Work equipment
 - Personal protective equipment

- Work with visual display units
- Handling of heavy loads involving risk of back injury
- Temporary or mobile work sites
- Fisheries and agriculture

Council Directive 92/91/EEC of 3 November 1992 concerning the minimum requirements for improving the safety and health protection of workers in the mineral- extracting industries through drilling (eleventh individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)

Official Journal L 348 , 28/11/1992 P. 0009 - 0024

Article

Description

SECTION I - GENERAL PROVISIONS

Article 1 Subject

- 1. This Directive, which is the eleventh individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC, lays down minimum requirements for the safety and health protection of workers in the mineral-extracting industries through drilling defined in Article 2 (a).
- 2. The provisions of Directive 89/391/EEC shall apply in full to the sphere referred to in paragraph 1, without prejudice to more stringent and/or specific provisions contained in this Directive.

Article 2 **Definitions**

For the purpose of this Directive:

- (a) mineral-extracting industries through drilling shall mean all the industries practising:
 - extraction, in the strict sense of the word, of minerals through drilling by boreholes, and/or
 - (&{È&};) OJ N° L 183, 29. 6. 1989, p. 1.
 - prospection with a view to such extraction, and/or
 - preparation of extracted materials for sale, excluding the activities of processing the materials extracted;
- (b) workplace shall mean the whole area intended to house workstations, relating to the immediate and ancillary activities and installations of the mineral-extracting industries through drilling, including accommodation, where provided, to which workers have access in the context of their work.

SECTION II - EMPLOYERS' OBLIGATIONS

Article 3 General obligations

- 1. To safeguard the safety and health of workers, the employer shall take the necessary measures to ensure that:
 - (a) workplaces are designed, constructed, equipped, commissioned,

operated and maintained in such a way that workers can perform the work assigned to them without endangering their safety and/or health and/or those of other workers;

- (b) the operation of workplaces when workers are present takes place under the supervision of a person in charge;
- (c) work involving a special risk is entrusted only to competent staff and carried out in accordance with the instructions given;
- (d) all safety instructions are comprehensible to all the workers concerned;
- (e) appropriate first-aid facilities are provided;
- (f) any relevant safety drills are performed at regular intervals.
- 2. The employer shall ensure that a document concerning safety and health, hereinafter referred to as 'safety and health document', covering the relevant requirements laid down in Articles 6, 9 and 10 of Directive 89/391/EEC, is drawn up and kept up to date.

The safety and health document shall demonstrate in particular:

- that the risks incurred by the workers at the work place have been determined and assessed,
- that adequate measures will be taken to attain the aims of this Directive,
- that the design, use and maintenance of the workplace and of the equipment are safe.

The safety and health document must be drawn up prior to the commencement of work and be revised if the workplace has undergone major changes, extensions or conversions.

3. Where workers from several undertakings are present at the same workplace, each employer shall be responsible for all matters under his control.

The employer who, in accordance with national laws and/or practices, is in charge of the workplace, shall coordinate the implementation of all the measures concerning the safety and health of the workers and shall state, in his safety and health document, the aim of that coordination and the measures and procedures for implementing it.

The coordination shall not affect the responsibility of the individual employers as provided for in Directive 89/391/EEC.

4. The employer shall, without delay, report any serious and/or fatal occupational accidents and situations of serious danger to the competent authorities.

If necessary, the employer shall update the safety and health document recording measures taken to avoid any repetition.

Article 4 **Protection from fire, explosions and health-endangering** atmospheres

The employer shall take measures and precautions appropriate to the nature of the operation:

- to avoid, detect and combat the starting and spread of fires and explosions,

and

- to prevent the occurrence of explosive and/or health-endangering atmospheres.

| Article 5 | Escape and rescue facilities |
|------------------|--|
| | The employer shall provide and maintain appropriate means of escape and rescue in order to ensure that workers have adequate opportunities for leaving the workplaces promptly and safely in the event of danger. |
| Article 6 | Communication, warning and alarm systems |
| | The employer shall take the requisite measures to provide the necessary warning and other communication systems to enable assistance, escape and rescue operations to be launched immediately if the need arises. |
| Article 7 | Keeping workers informed |
| | 1. Without prejudice to Article 10 of Directive 89/391/EEC, workers and/or their representatives shall be informed of all measures to be taken concerning safety and health at workplaces, and in particular of those relating to the implementation of Article 3 to 6. |
| | 2. The information must be comprehensible to the workers concerned. |
| Article 8 | Health surveillance |
| | 1. To ensure that workers receive health surveillance appropriate to the health and safety risks they incur at work, measures shall be introduced in accordance with national law and/or practices. |
| | 2. The measures referred to in paragraph 1 shall be such that each worker shall be entitled to or shall undergo health surveillance before being assigned to duties related to the activities referred to in Article 2 and subsequently at regular intervals. |
| | Health surveillance may be provided as part of a national health system. |
| Article 9 | Consultation of workers and workers' participation |
| | Consultation and participation of workers and/or of their representatives shall take place in accordance with Article 11 of Directive 89/391/EEC on the matters covered by this Directive. |
| Article 10 | Minimum requirements for safety and health |
| | Workplaces used for the first time after the date on which this Directive is brought into effect as referred to in Article 12 (1) must satisfy the minimum safety and health requirements laid down in the Annex. |
| | 2. Workplaces already in use before the date on which this Directive is brought into effect as referred to in Article 12 (1) must satisfy the minimum safety and health requirements laid down in the Annex as soon as possible and at the latest five years after that date. |
| | 3. When workplaces undergo changes, extensions and/or conversions after the date on which this Directive is brought into effect as referred to in Article 12 (1), the employer shall take the measures necessary to ensure that those changes, extensions and/or conversions are in compliance with the corresponding minimum requirements laid down in the Annex. |
| SECTION III - OT | HER PROVISIONS |

Article 11 Adjustments to the Annexes

Purely technical adjustments to the Annexes in line with:

- the adoption of Directives in the field of technical harmonization and

standardization concerning the mineral-extracting industries through drillina.

and/or

- technical progress, changes in international regulations or specifications, and new findings concerning the mineral-extracting industries through drilling, shall be adopted in accordance with the procedure laid down in Article 17 of Directive 89/391/EEC. Article 12 **Final provisions** 1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 24 months after its adoption. They shall forthwith inform the Commission thereof. 2. When Member States adopt the provisions referred to in paragraph 1. these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States. 3. Member States shall communicate to the Commission the texts of the provisions of national law which they have already adopted or are adopt in the field governed by this Directive. 4. Member States shall report to the Commission every five years on the practical implementation of this Directive, indicating the views of employers and workers. The Commission shall inform the European Parliament, the Council, the Economic and Social Committee, the Safety and Health Commission for the Mining and Other Extractive Industries and the Advisory Committee on Safety, Hygiene and Health Protection at Work thereof. Article 13 This Directive is addressed to the Member States. Done at Brussels, 3 November 1992. For the Council The President DENTON OF WAKEFIELD (1) OJ N° C 32, 7. 2. 1991, p. 7. (2) OJ N° C 280, 28. 10. 1991, p. 79; and OJ N° C 241, 21. 9. 1992, p. 88. (3) OJ N° C 191, 22. 7. 1991, p. 34.
 - (4) OJ N° L 393, 30. 12. 1989, p. 1.

ANNEX

MINIMUM SAFETY AND HEALTH REQUIREMENTS AS REFERRED TO IN ARTICLE 10 OF THE DIRECTIVE

Preliminary note

The obligations laid down in this Annex apply whenever required by the features of the workplace, the activity, the circumstances or a specific risk.

PART A

Common minimum requirements applicable to the on-shore and off-shore

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sectors

1. Stability and solidity

Workplaces must be designed, constructed, erected, operated, supervised and maintained to withstand the environmental forces anticipated.

They must have a structure and solidity appropriate to the nature of their use.

2. Organization and supervision

2.1. Organization of the workplace

- 2.1.1. Workplaces must be so organized as to provide adequate protection against hazards. They must be kept clean, with any hazardous substances or deposits removed or controlled in order not to endanger the health and safety of workers.
- 2.1.2. Workstations must be designed and constructed according to ergonomic principles taking into account the need for workers to follow operations carried out at their workstations.
- 2.1.3. Areas within which there is a special hazard must be delineated and warning signs placed.

2.2. Person in charge

A responsible person who has the skills and competence required for this duty, in accordance with the national laws and/or practices, and who has been appointed by the employer, must at all times be in charge of every workplace when workers are present.

The employer may personally assume responsibility for the workplace as referred to in the first paragraph, if he has the skills and competence required for the purpose, in accordance with national laws and/or practices.

2.3. Supervision

To ensure workers' safety and health protection during all operations undertaken, the necessary supervision must be provided by persons having the skills and competence for this duty, in accordance with the national laws and/or practices, having been appointed by the employer or on his behalf and acting on his behalf.

The employer may personally undertake the supervision referred to in the first subparagraph if he has the skills and competence required for the purpose, in accordance with national laws and/or practices.

2.4. Competent workers

When workers are present at any workplace, there must be a sufficient number of workers with the requisite skills, experience and training to perform the tasks assigned to them.

2.5. Information, instructions and training

Workers must be given the necessary information, instructions, training and retraining to ensure their health and safety.

The employer must ensure that workers receive comprehensible instructions so as not do endanger their safety and health or those of other workers.

2.6. Written instructions

Written instructions specifying rules to be observed to ensure the safety and health of workers and the safe use of equipment must be drawn up for every workplace.

These must include information on the use of emergency equipment and action to be taken in the event of an emergency at or near the workplace.

2.7. Safe working methods

Safe working methods must be applied at each workplace or in respect of each activity.

2.8. Work permits

There required by the safety and health document, a system of work permits must be introduced for carrying out both hazardous activities and usually straightforward activities which may interact with other activities to cause serious hazards.

Work permits must be issued by a person in charge prior to the commencement of work and must specify the conditions to be fulfilled and the precautions to be taken before, during and after the work.

2.9. Regular review of safety and health measures

The employer must ensure that the measures taken to protect the safety and health of the workers, including the safety and health management system, are regularly reviewed to ensure compliance with this Directive.

3. Mechanical and electrical equipment and plant

3.1. General

Selection, installation, commissioning, operation and maintenance of mechanical and electrical equipment must take place with due regard for the safety and health of workers, taking into consideration other provisions of this Directive and of Directives 89/392/EEC (¹) and 89/655/EEC (²).

If located in an area within which risk of fire or explosion from ignition of gas, vapour or volatile liquid exists or is likely to exist, it must be suitable for use in that area.

Equipment must, if necessary, be fitted with suitable protective devices and failsafe systems.

3.2. Specific provisions

Mechanical equipment and plant must be of adequate strength and free from patent defect and suitable for the purpose for which it is intended.

Electrical equipment and plant must be of sufficient size and power for the purpose for which it is intended.

4. Maintenance

4.1. General maintenance

A suitable scheme should be set up providing for the systematic examination, maintenance and, where appropriate, testing of mechanical and electrical equipment and plant.

All maintenance, examination and testing of any part of the plant and equipment must be carried out by a competent person.

Records of examinations and tests must be made and kept in an appropriate manner.

4.2. Safety equipment maintenance

Adequate safety equipment must be maintained ready for use and in good working order at all times.

Maintenance must be undertaken with due regard to operations.

5. Well control

Suitable well control equipment must be provided for use during borehole operations to protect against blowouts.

Deployment of such equipment must take into account the prevailing well and operational conditions.

6. Protection from harmful atmospheres and explosion risks

6.1. Measures must be taken for assessing the presence of harmful and/or potentially explosive substances in the atmosphere and for measuring the concentration of such substances.
(¹) OJ N° L 183, 29. 6. 1989, p. 9. Directive as amended by Directive 91/368/EEC (OJ N° L 198, 22. 7. 1991, p. 16).

(²) OJ N° L 393, 30. 12. 1989, p. 13.

Where required by the safety and health document, monitoring devices measuring gas concentrations at specified places automatically and continuously, automatic alarms and devices to cut off power automatically from electrical installations and internal combustion engines must be provided.

Where automatic measurements are provided for, the values measured must be recorded and kept as stipulated in the safety and health document.

6.2. Protection from harmful atmospheres

6.2.1. Where harmful substances accumulate or may accumulate in the atmosphere, appropriate measures must be taken to ensure their collection at source and removal.

The system must be capable of dispersing such harmful atmosphere in such a way that workers are not at risk.

6.2.2. Without prejudice to Directive 89/656/EEC (¹), appropriate and sufficient breathing and resuscitation equipment must be available in areas where workers must be exposed to atmospheres which are harmful to health.

In such cases, a sufficient number of workers trained to use such equipment must be present at the workplace.

The equipment must be suitably stored and maintained.

6.2.3. Where hydrogen sulphide or other toxic gases are or may be present in the atmosphere, a protection plan detailing the protective equipment available and the preventive measures taken must be held at the disposal of the competent authorities.

6.3. Prevention of risks of explosion

- 6.3.1. All necessary measures must be taken to prevent the occurrence and accumulation of explosive atmospheres.
- 6.3.2. In areas where there are risks of explosion, all necessary measures must be taken to prevent the ignition of explosive atmospheres.
- 6.3.3. An explosion prevention plan detailing the equipment and measures required must be prepared.

7. Emergency routes and exits

- 7.1. Emergency routes and exits must remain clear and lead by the most direct means to the open air or to a safe area, a safe assembly point or a safe evacuation point.
- 7.2. In the event of danger, it must be possible for workers to evacuate all workstations quickly and as safely as possible.
- 7.3. The number, distribution and dimensions of the emergency routes and exits depend on the use, equipment and dimensions of the workplaces and the maximum number of persons that may be present.

Accommodation and rest rooms must have at least two separate escape routes situated as far apart as possible and leading to a safe area, a safe assembly point or a safe evacuation point.

- 7.4. Emergency doors must open outwards or, if this is impossible, be sliding doors. Emergency doors should not be so locked or fastened that they cannot be easily and immediately opened by any person who may require to use them in an emergency.
- 7.5. Specific emergency routes and exits must be indicated by signs in accordance with the national regulations transposing Directive 92/58/EEC (²) into law.

7.6. Emergency doors must not be locked.

The emergency routes and exits, and the traffic routes and doors giving access to them, must be free from obstruction so that they can be used at any time without hindrance.

7.7. Emergency routes and exits requiring illumination must be provided with emergency lighting of adequate intensity in case the lighting fails.

(¹) OJ N° L 393, 30. 12. 1989, p. 18.

(²) OJ N° L 245, 26. 8. 1992, p. 23.

8. Ventilation of enclosed workplaces

8.1. Steps shall be taken to ensure that there is sufficient fresh air in enclosed workplaces, having regard to the working methods used and the physical demands placed on the workers.

If a forced ventilation system is used, it must be maintained in working order.

Any breakdown must be indicated by a control system where this is necessary for workers' health.

8.2. If air-conditioning or mechanical ventilation installations are used, they must operate in such a way that workers are not exposed to draughts which cause discomfort.

Any deposit or dirt likely to create an immediate danger to the health of workers by polluting the atmosphere must be removed without delay.

9. Room temperature

- 9.1. During working hours, the temperature in rooms containing workplaces must be adequate for human beings, having regard to the working methods being used and the physical demands placed on the workers.
- 9.2. The temperature in rest areas, rooms for duty staff, sanitary facilities, canteens and first aid rooms must be appropriate to the particular purpose of such areas.
- 9.3. Windows, skylights and glass partitions should allow excessive effects of sunlight in workplaces to be avoided, having regard to the nature of the work and of the workplace.

10. Floors, walls, ceilings and roofs of rooms

10.1. The floors of workplaces must have no dangerous bumps, holes or slopes and must be fixed, stable and not slippery.

Workplaces containing workstations must be adequately insulated against heat, bearing in mind the type of undertaking involved and the physical activity of the workers.

- 10.2. The surfaces of floors, walls and ceilings in rooms must be such that they can be cleaned or refurbished to an appropriate standard of hygiene.
- 10.3. Transparent or translucent walls, in particular all-glass partitions, in rooms or in the vicinity of workplaces and traffic routes must be clearly indicated and made of safety material or be shielded from such place or traffic routes to prevent workers from coming into contact with walls or being injured should the walls shatter.
- 10.4. Access to roofs made of materials of insufficient strength must not be permitted unless equipment is provided to ensure that the work can be carried out in a safe manner.

11. Natural and artificial lighting

- 11.1. Every workplace must be provided throughout with lighting capable of supplying illumination sufficient to ensure the health and safety of persons therein.
- 11.2. Workplaces must as far as possible receive sufficient natural light and be equipped, taking into account climatological conditions, with artificial lighting

adequate for the protection of workers' safety and health.

- 11.3. Lighting installations in rooms containing workplaces and in passageways must be placed in such a way that the type of lighting does not present a risk of accident to workers.
- 11.4. Workplaces in which workers are especially exposed to risks in the event of failure or artificial lighting must be provided with emergency lighting of adequate intensity.
- 11.5. Lighting installations must be designed to ensure that operational control areas, escape routes, embarkation areas and hazardous areas remain illuminated. Where workplaces are occupied only occasionally, the obligation referred to in the first paragraph is limited to the period during which workers are present.

12. Windows and skylights

12.1. Windows, skylights and ventilation devices which are meant to be opened, adjusted or secured must be designed so that these operations can be carried out safely.

They must not be positioned so as to constitute a hazard to workers when open.

12.2. It must be possible to clean windows and skylights without risk.

13. Doors and gates

- 13.1. The position, number and dimensions of doors and gates, and the materials used in their construction, are determined by the nature and use of the rooms or areas.
- 13.2. Transparent doors must be appropriately marked at a conspicuous level.
- 13.3. Swing doors and gates must be transparent or have see-through panels.
- 13.4. If transparent or translucent surfaces in doors and gates are not made of safety material and if there is a danger that workers may be injured if a door or gate should shatter, the surfaces must be protected against breakage.
- 13.5. Sliding doors must be fitted with a safety device to prevent them from being derailed and falling over unexpectedly.
- 13.6. Doors and gates opening upwards must be fitted with a mechanism to secure them against falling back unexpectedly.
- 13.7. Doors along escape routes must be appropriately marked.

It must be possible to open them from the inside at any time without special assistance.

It must be possible to open the doors when the workplaces are occupied.

- 13.8. Doors for pedestrians must be provided in the immediate vicinity of any gates intended essentially for vehicle traffic, unless it is safe for pedestrians to pass through; such doors must be clearly marked and left permanently unobstructed.
- 13.9. Mechanical doors and gates must function without risk of accident to workers. They must be fitted with easily identifiable and accessible emergency shut-down devices and, unless they open automatically in the event of a power failure, it must also be possible to open them manually.
- 13.10. Where chains or similar devices are used to prevent access at any place, these should be clearly visible and appropriately identified by signs denoting any prohibition or warning.

14. Traffic routes

- 14.1. It must be possible to reach workplaces without danger and leave them quickly and safely in an emergency.
- 14.2. Traffic routes, including stairs, fixed ladders and loading bays and ramps, must be calculated, dimensioned and located to ensure easy, safe and appropriate

access for pedestrians or vehicles in such a way as not to endanger workers employed in the vicinity of these traffic routes.

- 14.3. Routes used for pedestrian traffic and/or goods traffic must be dimensioned in accordance with the number of potential users and the type of undertaking.If means of transport are used on traffic routes, a sufficient safety clearance must be provided for pedestrians.
- 14.4. Sufficient clearance must be allowed between vehicle traffic routes and doors, gates, passages for pedestrians, corridors and staircases.
- 14.5. Traffic and access routes must be clearly identified for the protection of workers.

15. Danger areas

- 15.1. If the workplaces contain danger areas in which, owing to the nature of the work, there are risks including that of the worker or objects falling, the places must be equipped, as far as possible, with devices preventing unauthorized workers from entering those areas.
- 15.2. Appropriate measures must be taken to protect workers authorized to enter danger areas.
- 15.3. Danger areas must be clearly indicated.

16. Room dimensions and air space in rooms - freedom of movement at the workstation

- 16.1. Workrooms must have sufficient surface area, height and air space to allow workers to perform their work without risk to their safety, health or well-being.
- 16.2. The dimensions of the unoccupied area at the workstation must allow workers sufficient freedom of movement and enable them to perform their work safely.

17. Rest rooms

- 17.1. Where the safety or health of workers, in particular because of the type of activity carried out or the presence of more than a certain number of employees, so requires, workers must be provided with an easily accessible rest room. This provision does not apply if the workers are employed in offices or similar workrooms providing equivalent relaxation during breaks.
- 17.2. Rest rooms must be large enough and equipped with an adequate number of tables and seats with backs for the number of workers.
- 17.3. In rest rooms appropriate measures must be introduced for the protection of nonsmokers against discomfort caused by tobacco smoke.
- 17.4. If working hours are regularly and frequently interrupted and there is no rest room, other rooms must be provided in which workers can stay during such interruptions, wherever this is required for the safety or health of workers. Appropriate measures should be taken for the protection of non-smokers against discomfort caused by tobacco smoke.

18. Outdoor workplaces

- 18.1. Workstations, traffic routes and other areas or installations outdoors which are used or occupied by the workers in the course of their activity must be organized in such a way that pedestrians and vehicles can circulate safely.
- 18.2. Workplaces outdoors must be adequately lit by artificial lighting if daylight is not adequate.
- 18.3. When workers are employed at workstations outdoors, such workstations must as far as possible be arranged so that workers:

(a) are protected against inclement weather conditions and if necessary against falling objects;

(b) are not exposed to harmful noise levels nor to harmful external influences

such as gases, vapours or dust;

(c) are able to leave their workstations swiftly in the event of danger or are able to be rapidly assisted;

(d) cannot slip or fall.

19. Pregnant women and nursing mothers

Pregnant women and nursing mothers must be able to lie down to rest in appropriate conditions.

20. Handicapped workers

Workplaces must be organized to take account of handicapped workers, if necessary.

This provision applies in particular to the doors, passageways, staircases, showers, washbasins, lavatories and workstations used or occupied directly by handicapped persons.

PART B

Special minimum requirements applicable to the on-shore sector

1. Fire detection and fire fighting

1.1. Wherever workplaces are designed, constructed, equipped, commissioned, operated or maintained, adequate measures must be taken to prevent fires from starting and spreading from the sources identified in the safety and health document.

Provision must be made for fast and effective fire fighting.

- 1.2. Workplaces must be equipped with appropriate fire-fighting equipment and, as necessary, with fire detectors and alarm systems.
- 1.3. Non-automatic fire-fighting equipment must be easily accessible and simple to use and, where necessary, protected from damage.
- 1.4. A fire protection plan detailing the precautions to be taken, in accordance with Articles 3, 4, 5 and 6 of this Directive, to protect against, detect and combat the outbreak and spread of fires must be kept on site.
- 1.5. The fire-fighting equipment must be indicated by signs in accordance with the national regulations transposing Directive 92/58/EEC into law.

Such signs must be placed at appropriate points and be made to last.

2. Remote control in emergencies

Where required by the safety and health document, certain equipment must be capable of remote control at suitable locations in the event of an emergency. Such equipment must include systems for the isolation and blowdown of wells, plant and pipelines.

3. Communication, general and emergency

- 3.1. Where required by the safety and health document, every workplace at which workers are present must be provided with:
 - (a) an acoustic and optical system capable of transmitting an alarm indication to every manned part of the workplace as necessary;
 - (b) an acoustic system capable of being heard distinctly at all parts of the installation where workers are frequently present.
- 3.2. Facilities for raising the alarm must be provided at suitable locations.

3.2. When workers are present at workplaces which are not normally manned, appropriate communication systems must be placed at their disposal.

4. Safe assembly points and muster list

Where required by the safety and health document, safe assembly points should be specified, muster lists should be maintained and the necessary action should be taken.

5. Means of evacuation and escape

- 5.1. Workers must be trained in the appropriate actions to be taken in emergencies.
- 5.2. Rescue equipment must be provided at readily accessible and appropriately sited places and kept ready for use.
- 5.3. Where escape routes are difficult, and where irrespirable atmospheres are or may be present, self-contained escape apparatus must be provided for immediate use at the workstation.

6. Safety drills

Safety drills must be held at regular intervals at all workplaces at which workers are usually present.

The main purpose of such drills is to train and check the skills of workers to whom specific duties have been assigned in the event of emergency involving the use, handling or operation of emergency equipment, taking into account the criteria laid down in the safety and health document referred to in point 1.1.

Where appropriate, workers, who have been so assigned, should also be drilled in the correct use, handling or operation of that equipment.

7. Sanitary equipment

7.1. Changing rooms and lockers

7.1.1. Appropriate changing rooms must be provided for workers if they have to wear special work clothes and where, for reasons of health or propriety, they cannot be expected to change in another room.

Changing rooms must be easily accessible, be of sufficient capacity and be provided with seating.

7.1.2. Changing rooms must be sufficiently large and have facilities to enable each worker to lock away his/her clothes during working hours.

If circumstances so require (e.g. dangerous substances, humidity, dirt), lockers for work clothes must be separate from those for ordinary clothes. Provision must be made to enable wet work clothes to be dried.

- 7.1.3. Provision must be made for separate changing rooms or separate use of changing rooms for men and women.
- 7.1.4. If changing rooms are not required under point 7.1.1. each worker must be provided with a place to store his/her clothes.

7.2. Showers and washbasins

7.2.1. Adequate and suitable showers must be provided for workers if required by the nature of the work or for health reasons.

Provision must be made for separate shower rooms or separate use of shower rooms for men and women.

- 7.2.2. The shower rooms must be sufficiently large to permit each worker to wash without hindrance in conditions of an appropriate standard of hygiene. The showers must be equipped with hot and cold running water.
- 7.2.3. Where showers are not required under the first subparagraph of point 7.2.1, adequate and suitable washbasins with running hot and could water must be provided in the vicinity of the workstations and the changing rooms.

Such washbasins must be separate for, or used separately by, men and women when so required for reasons of propriety.

7.2.4. Where the rooms housing the showers or washbasins are separate from the changing rooms, there must be easy communication between the two.

7.3. Lavatories and washbasins

Separate facilities must be provided in the vicinity of workstations, rest rooms, changing rooms and rooms housing showers or washbasins, with an adequate number of lavatories and washbasins.

Provision must be made for separate lavatories or separate use of lavatories for men and women.

8. First aid rooms and equipment

8.1. First aid equipment must be appropriate to the type of activity carried out. One or more first aid rooms must be provided.

Clearly visible first aid instruction in the event of accidents must be displayed in these rooms.

8.2. First aid rooms must be fitted with essential first aid installations and equipment and be easily accessible to stretchers.

They must be signposted in accordance with the national regulations transposing Directive 92/58/EEC into law.

8.3. In addition, first aid equipment must be available in all places where working conditions require it.

This equipment must be suitably marked and easily accessible.

8.4. A sufficient number of workers must be trained in the use of the first aid equipment provided.

9. Traffic routes

Where road vehicles enter the workplace, traffic regulations must be established as necessary.

PART C

Special minimum requirements applicable to the off-shore sector

1. Preliminary remark

1.1. Without prejudice to Article 3 (2), the employer who, in accordance with national legislation and/or practice, is responsible for the workplace covered by this Part C must ensure that the safety and health document shows that all relevant measures have been taken to protect the safety and health of workers in both normal and critical situations.

To this end, the document must:

(a) identify the special sources of hazard associated with the workplace, including any concomitant activity which could cause accidents likely to have serious consequences for the health and safety of the workers concerned;

(b) assess the risks involved in the special sources of hazard referred to in (a);

(c) show that adequate precautions have been taken to avoid the accidents referred to in (a), to limit the spread of accidents and to allow efficient and controlled evacuation of the workplace in emergency situations;

(d) show that the management system is adequate to comply with the provisions

of Directive 89/391/EEC and this Directive in both normal and critical situations.

- 1.2. The employer shall observe the procedures and arrangements laid down in the safety and health document during the planning and implementation of all the relevant stages covered by this Directive.
- 1.3. Different employers who are responsible for different workplaces shall cooperate, where appropriate, in preparing safety and health documents and in measures necessary to ensure the safety and health of workers.

2. Fire detection and fire fighting

2.1. Appropriate precautions, as identified by the safety and health document referred to in 1.1, must be undertaken to protect against, detect and combat the outbreak and spread of fires.

Where appropriate, fire walls should be provided for the purpose of segregating fire risk areas.

2.2. Adequate fire detection and protection systems, fire-fighting systems and alarms must be provided at all workplaces in accordance with the risks identified in the safety and health document referred to in point 1.1.

These may include but are not limited to:

- fire detection systems,
- fire alarms,
- fire water mains,
- fire hydrants and hoses,
- water deluge systems and water monitors,
- automatic sprinkler systems,
- gas extinguishant systems,
- foam systems,
- portable fire extinguishers,
- fireman's equipment.
- 2.3. Non-automatic fire-fighting equipment must be easily accessible, simple to use and, where necessary, protected from damage.
- 2.4. A fire protection plan detailing the precautions to protect against, detect and combat the outbreak and spread of fires must be kept at the workplace.
- 2.5. Emergency systems must be segregated or otherwise afforded protection from accidents to the extent necessary to ensure that the emergency functions remain operational in an emergency.

Such systems shall be duplicated where appropriate.

- 2.6. The equipment must be indicated by signs in accordance with the national regulations transposing Directive 92/58/EEC into law.
 - Such signs must be placed at appropriate points and be made to last.

3. Remote control in emergencies

- 3.1. Where required by the safety and health document referred to in point 1.1, a remote control system in the event of an emergency must be set up. That system must incorporate monitoring stations at suitable locations which may be used in the event of an emergency including, if necessary, monitoring stations at safe assembly points and evacuation stations.
- 3.2. Equipment capable of remote control as referred to in point 3.1 must at least include systems for ventilation, emergency shutdown of equipment which could give rise to ignition, the prevention of the escape of flammable liquids and gas, fire

protection and well control.

4. Communication: general and emergency

- 4.1. Where required by the safety and health document referred to in point 1.1, every workplace at which workers are present must be provided with:
 - an acoustic and optical system capable of transmitting an alarm to every manned part of the workplace as necessary,
 - an acoustic system capable of being heard distinctly in all parts of the installation where workers are frequently present,
 - a system capable of maintaining communication with the shore and rescue services.
- 4.2. Such system must be capable of remaining operational in the event of an emergency.

The acoustic system should be supplemented by communication systems which are not reliant on vulnerable power supplies.

- 4.3. Facilities for raising the alarm must be installed at suitable locations.
- 4.4. When workers are present at workplaces which are not normally manned, communications systems appropriate to the circumstances must be provided.

5. Safe assembly points and muster list

5.1. Adequate measures must be taken to protect evacuation points and safe assembly points from heat, smoke and, as far as possible, the effects of explosion, and to ensure that escape routes to and from evacuation points and safe assembly points remain passable.

These measures must be such as to provide protection to workers for a sufficient period to enable safe evacuation, escape and rescue to be organized and carried out where necessary.

- 5.2. Where required by the safety and health document referred to in 1.1, one of the protected locations specified in 5.1 must provide appropriate facilities to enable the equipment specified in point 3 of this Part C to be remote-controlled and the shore and emergency services to be communicated with.
- 5.3. Safe assembly points and evacuation points must be readily accessible from accommodation and work areas.
- 5.4. For each individual safe assembly point, a list containing the names of workers assigned to that safe assembly point must be kept up to date and displayed.
- 5.5. A list of persons assigned special duties in the event of an emergency must be provided and displayed at suitable locations at the workplace. Their names must be noted in the written instructions referred to in point 3.6 of Part A.

6. Means of evacuation and escape

- 6.1. Workers must be trained in the appropriate actions to be taken in emergencies. In addition to general emergency training, workers must receive training specific to the workplace which should be specified in the safety and health document referred to in point 1.1 concerning that workplace.
- 6.2. Workers must be given suitable training in survival techniques, taking into account the criteria laid down in the safety and health document referred to in point 1.1.
- 6.3. Suitable and sufficient means of evacuation in an emergency and means of escape direct to the sea must be provided at every workplace.
- 6.4. An emergency plan for sea rescue and workplace evacuation situations must be drawn up.

The plan, which must be based on the safety and health document referred to in point 1.1, must provide for the use of standby vessels and helicopters and include criteria concerning the capacity and response time of standby vessels and helicopters.

The required response time must be given in the safety and health document for each installation.

Standby vessels must be designed and equipped to meet evacuation and rescue requirements.

- 6.5. The minimum requirement for every survival craft (lifeboat), life-raft, life-buoy and life-jacket which is provided are that they:
 - must be suitable and equipped to maintain life for a sufficient time,
 - must be in sufficient number of all the workers likely to be present,
 - must be of a type suitable for the workplace,
 - must be properly constructed of suitable materials having regard to their lifesaving function and the circumstances in which they may be used and kept ready for use, and
 - must be of such colour as will make them conspicuous when in use, and equipped with devices such that the user can use them to attract the attention of rescuers.
- 6.6. Adequate life-saving appliances must be available for immediate use.

7. Safety drills

At workplaces at which workers are usually present, safety drills must be held at regular intervals in which:

- all workers to whom specific duties have been assigned involving the use, handling or operation of emergency equipment are trained and examined in the execution of such duties, taking into account the criteria laid down in the safety and health document referred to in point 1.1.

Where appropriate, workers must also be drilled in the correct use, handling or operation of that equipment,

- all emergency equipment used in the drill is examined, cleaned and, where appropriate, recharged or replaced and all portable equipment so used is returned to the place where it is ordinarily kept,
- survival craft are verified for operation.

8. Sanitary equipment

8.1. Changing rooms and lockers

8.1.1. Appropriate changing rooms must be provided for workers if they have to wear special work clothes and where, for reasons of health or propriety, they cannot be expected to change in another room.

Changing rooms must be easily accessible, be of sufficient capacity and be provided with seating.

- 8.1.2. Changing rooms must be sufficiently large and have facilities to enable each worker to lock away his/her clothes during working hours.
 If circumstances so require (e.g. dangerous substances, humidity, dirt), lockers for work clothes must be separate from those for ordinary clothes.
 Provision must be made to enable wet work clothes to be dried.
- 8.1.3. Provision must be made for separate changing rooms or separate use of changing rooms for men and women.
- 8.1.4. If changing rooms are not required under point 8.1.1, each worker must be provided with a place to store his/her clothes.

8.2. Showers and washing facilities

In addition to those facilities provided in any accommodation area, suitable showers and washing facilities must if necessary be provided in the vicinity of workstations.

8.3. Lavatories and washbasins

In addition to those facilities provided in any accommodation, lavatories and washbasins must if necessary be provided in the vicinity of workstations.

Provision must be made for separate lavatories or separate use of lavatories for men and women.

9. First-aid rooms and equipment

- 9.1. One or more first-aid rooms must be provided according to the size of the installation and the type of activity being carried out.
- 9.2. The first-aid rooms must have suitable equipment, facilities and medicines and a sufficient number of specialized workers, as required by the circumstances, for giving first-aid or, where necessary, treatment under the direction of a registered medical practitioner (who may or may not be present).

They must be signposted in accordance with national rules transposing Directive 92/58/EEC into law.

9.3. In addition, first-aid equipment must be available in all places where working conditions require it.

This equipment must be suitably signposted and easily accessible.

10. Accommodation

- 10.1. If the nature, scale and duration of operations so require, the employer must also provide employees with accommodation which must be:
 - suitably protected against the effects of explosion, the infiltration of smoke and gas and the outbreak and spread of fire as identified in the safety and health document referred to in point 1.1,
 - suitably equipped with ventilation, heating and lighting facilities,
 - provided at each level with at least two independent exits leading to escape routes,
 - protected against noise, smells and fumes likely to be hazardous to health from other areas, and against inclement weather,
 - separate from any workstation and located away from dangerous areas.
- 10.2. Such accommodation must contain sufficient beds or bunks for the number of persons expected to sleep on the installation.

Any room designated as sleeping accommodation must contain adequate space for the occupants to store their clothes.

Separate sleeping rooms for men and women must be provided.

10.3. Such accommodation must include a sufficient number of showers and washing facilities equipped with hot and cold running water.

Provision must be made for separate shower rooms or separate use of shower rooms for men and women.

Showers must be sufficiently spacious to permit each worker to wash without hindrance in suitably hygienic conditions.

10.4. The accommodation must be equipped with a sufficient number of lavatories and washbasins.

Provision must be made for separate facilities or separate use of such facilities for men and women.

10.5. The accommodation and its equipment must be maintained to adequate

standards of hygiene.

11. Helicopter operations

- 11.1. Helicopter decks at workplaces must be of sufficient size and located so as to provide a clear approach to enable the largest helicopter using the deck to operate under the most severe conditions anticipated for helicopter operations. The helicopter deck must be of a design and construction adequate for the intended service.
- 11.2. There should be provided, and stored in the immediate vicinity of the helicopter landing area, equipment needed for use in the event of an accident involving a helicopter.
- 11.3. On installations with a resident workforce, a sufficient number of emergency response trained personnel for the purpose must be available on the helicopter deck during helicopter movements.

12. Positioning of installations at sea - safety and stability

- 12.1. All the necessary measures must be taken to ensure the safety and health of workers in the mineral-extracting industries through drilling while off-shore installations are being positioned at sea.
- 12.2. Operations in preparation for the positioning of off-shore installations must be carried out in such a way as to ensure their stability and safety.
- 12.3. Equipment used and procedures followed for the activities referred to in point12.1 must be such as to reduce any risk to workers in the mineral-extracting industries through drilling, having regard to both normal and critical conditions.

Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on Safety of Offshore Oil and Gas Operations and amending Directive 2004/35/EC – Specifically Annex 1, Section 3 "Information to be Submitted in a Report on Major Hazards for a Non-production Installation"

| Regulation | Requirement | HSE Case Reference |
|------------------------|---|---|
| Annex I, Section 3 | INFORMATION TO BE SUBMITTED IN A REPORT ON MAJOR HAZARDS FOR A NON-PRODUCTION INSTALLATION | |
| | Reports on major hazards for a non-production installation to be prepared in accordance with Article 13 and submitted pursuant to point (e) of Article 11(1) shall contain at least the following information: | |
| Annex I, Section 3 (1) | the name and address of the owner; | Not specified |
| Annex I, Section 3 (2) | A summary of any worker involvement in the preparation of the report on major hazards; | 2.2.1.3 |
| Annex I, Section 3 (3) | A description of the installation and, in the case of a mobile installation, a description of its means of transfer between locations, and its stationing system; | 3.0, 3.2.4.3, 3.2.4.4 |
| Annex I, Section 3 (4) | A description of the types of operations with major hazard potential that the installation is capable of performing, and the maximum number of persons that can be on the installation at any time; | 2.2.3.6, 3.7, 4.3.1, 4.3.2, 4.3.3 |
| Annex I, Section 3 (5) | demonstration that all major hazards have been identified, their likelihood and consequences assessed, including any environmental, meteorological and seabed limitations on safe operations and that their control measures including associated safety and environmental critical elements are suitable so as to reduce the risk of a major accident to an acceptable level; this demonstration shall include an assessment of any oil spill response effectiveness; | 2.3.6, 4.3.1, 4.3.2, 4.3.3, 4.4.2, 4.7 * Not specified "assessment of any oil spill response effectiveness" |
| Annex I, Section 3 (6) | a description of the plant and arrangements to ensure well control, process safety, containment of hazardous substances, prevention of fire and explosion, protection of the workers from hazardous substances, and protection of the environment from a major accident; | 2.3.6, 2.3.12, 2.3.17, 3.0, 3.5 * Not specified "containment" and "prevention of fire and explosion" |

Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on Safety of Offshore Oil and Gas Operations and amending Directive 2004/35/EC – Specifically Annex 1, Section 3 "Information to be Submitted in a Report on Major Hazards for a Non-production Installation"

| Regulation | Requirement | HSE Case Reference |
|-------------------------|--|--|
| Annex I, Section 3 (7) | a description of the arrangements to protect persons on the installation from major hazards, and to ensure their safe escape, evacuation and rescue, and arrangements for the maintenance of control systems to prevent damage to the installation and the environment in the event that all personnel are evacuated; | 2.0, 5.4.1, 5.5.1, 5.5.2 * Not specified "…in the event that all personnel are |
| Annex I, Section 3 (8) | relevant codes, standards and guidance used in the construction and commissioning of the installation; | evacuated" 1.3, 3.1.2, 3.1.5, 3.2.1 |
| Annex I, Section 3 (9) | demonstration that all the major hazards have been identified for all operations the installation is capable of performing, and that the risk of a major accident is reduced to an acceptable level; | 4.0 |
| Annex I, Section 3 (10) | a description of any environmental, meteorological and seabed limitations on safe operations, and the arrangements for identifying risks from seabed and marine hazards such as pipelines and the moorings of adjacent installations; | 2.3.6, 2.3.13, 4.4.2 |
| Annex I, Section 3 (11) | information, regarding the safety and environmental management system, that is relevant to the non-production installation; | 2.0 * see Annex I, Section 9 for add'l info |
| Annex I, Section 3 (12) | an internal emergency response plan or an adequate description thereof; | 5.1 |
| Annex I, Section 3 (13) | a description of the independent verification scheme; | 6.5 |

Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on Safety of Offshore Oil and Gas Operations and amending Directive 2004/35/EC – Specifically Annex 1, Section 3 "Information to be Submitted in a Report on Major Hazards for a Non-production Installation"

| Regulation | Requirement | HSE Case Reference |
|-------------------------|--|---|
| Annex I, Section 3 (14) | any other relevant details, for example where two or more installations operate in combination in a way which affects the major hazard potential of either or all installations; | 2.3.12.1, 2.3.12.1.1 |
| Annex I, Section 3 (15) | in respect of operations to be conducted from the installation, any information obtained pursuant to Directive 2011/92/EU relating to the prevention of major accidents resulting in significant or serious damage to the environment relevant to other requirements under this Directive; | Annex 4, Please see note re: European Union Directives |
| Annex I, Section 3 (16) | an assessment of the identified potential environmental effects resulting from the loss of containment of pollutants arising from a major accident, and a description of the technical and non-technical measures envisaged to prevent, reduce or offset them, including monitoring. | 5.2.2 |