International Association of Drilling Contractors

Appendix 1
to
Health, Safety and Environment
Case Guidelines
for
Offshore Drilling Contractors

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A1 - REFERENCE DOCUMENTS

A.1.1 INTERNATIONAL STANDARDS & INDUSTRY GUIDELINES


18. IEC 61882, Dependability management - Hazard and Operability (HAZOP) Studies.
22. European Standards, European Standards as appropriate - refer to www.cenorm.be.
27. International Association of Drilling Contractors, Guidelines for Preparing a MODU Verification Scheme. 1996.
32. American Bureau of Shipping, Rules for Building & Classing Mobile Offshore Drilling Units.
33. Det Norske Veritas, Rules for Classifying Mobile Offshore Drilling and Support Units.
35. Health & Safety Executive Offshore Information Sheet No. 3/2006 – Guidance on Risk Assessment for Offshore Installations
39. International Association of Oil and Gas Producers (OGP), Other OGP Publications as Appropriate -refer to http://www.ogp.org.uk/publications/
40. OREDA - Offshore Reliability Data.
41. DNV, WOAD - World Offshore Accident Databank.

A.1.2 COASTAL STATE LEGISLATION & GUIDANCE

Australia
For information on Australian Legislation, Standards and Guidelines see http://www.nopsema.gov.au/

Netherlands
For information on Dutch Legislation, Standards and Guidelines see http://www.sodm.nl
English translations of the Conditions of Employment Law are available from Alescon e-mail info@alescon.nl

Denmark
For information on Danish Legislation and Guidelines see www.ens.dk
Note: copies currently available by e-mail from safety@ens.dk.

Italy
For information on Italian Publications and Services see http://unmig.sviluppoeconomico.gov.it/home.asp#

UK
For information on UK Legislation, ACOP’s and Guidance see http://www.hse.gov.uk/offshore/index.htm and www.hsedirect.com
Note: the latter is a subscription service.

Norway
For information on Norwegian Legislation & Guidelines see http://www.ptil.no.

Germany
For information on German Legislation & Guidelines see www.lbeg.niedersachsen.de

New Zealand
# A2 ABBREVIATIONS & DEFINITIONS

## A.2.1 ABBREVIATIONS

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<tr>
<td>ABS</td>
<td>American Bureau of Shipping</td>
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<tr>
<td>ACoP</td>
<td>Approved Code of Practice</td>
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<td>ALARP</td>
<td>As Low As Reasonably Practicable</td>
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<tr>
<td>AoC</td>
<td>Acknowledgement of Compliance (Norway)</td>
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<td>API</td>
<td>American Petroleum Institute</td>
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<tr>
<td>BA</td>
<td>Breathing Apparatus</td>
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<td>Bbls</td>
<td>Barrels</td>
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<td>BHA</td>
<td>Bottom Hole Assembly</td>
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<td>BOP</td>
<td>Blow-out Preventer</td>
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<td>BS</td>
<td>British Standard</td>
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<tr>
<td>CAA</td>
<td>Civil Aviation Authority</td>
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<tr>
<td>CE</td>
<td>European Conformity Assessment Marking</td>
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<tr>
<td>CNLOPB</td>
<td>Canada Newfoundland Labrador Offshore Petroleum Board</td>
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<tr>
<td>CNSOPB</td>
<td>Canada Nova Scotia Offshore Petroleum Board</td>
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<tr>
<td>COSHH</td>
<td>Control of Substances hazardous to Health Regulations, UK</td>
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<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
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<tr>
<td>DCR</td>
<td>Design and Construction Regulations, UK</td>
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<td>DEA</td>
<td>Danish Energy Authority</td>
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<td>DP</td>
<td>Dynamic Positioning</td>
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<tr>
<td>EER</td>
<td>Escape, Evacuation and Rescue</td>
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<td>EEER</td>
<td>Escape, Evacuation and Emergency Response</td>
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<tr>
<td>EERA</td>
<td>Escape, Evacuation and Rescue Analysis</td>
</tr>
<tr>
<td>EI</td>
<td>Energy Institute, London</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>ESD</td>
<td>Emergency Shutdown</td>
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<td>ETA</td>
<td>Event Tree Analysis</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>F&amp;G</td>
<td>Fire &amp; Gas</td>
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<tr>
<td>FMEA</td>
<td>Failure Modes and Effects Analysis</td>
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<tr>
<td>FMECA</td>
<td>Failure Mode, Effect, and Criticality Analysis</td>
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<tr>
<td>FRC</td>
<td>Fast Rescue Craft</td>
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<td>FSA</td>
<td>Formal Safety Assessment</td>
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<td>FTA</td>
<td>Fault Tree Analysis</td>
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<td>GHA</td>
<td>Gross Hazard Analysis</td>
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<td>HAZAN</td>
<td>Hazard Analysis</td>
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<tr>
<td>HAZID</td>
<td>Hazard Identification Study</td>
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<td>HAZOP</td>
<td>Hazard and Operability Study</td>
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<td>HC</td>
<td>Hydrocarbon</td>
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<td>HLO</td>
<td>Helicopter Landing Officer</td>
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<td>HPHT</td>
<td>High Pressure - High Temperature</td>
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<td>HRA</td>
<td>Health Risk Assessment</td>
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<td>H₂S</td>
<td>Hydrogen Sulphide</td>
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<td>Acronym</td>
<td>Description</td>
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<tr>
<td>HSE</td>
<td>Health and Safety Executive, UK</td>
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<td>HSE</td>
<td>Health, Safety and Environment</td>
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<td>HSE MS</td>
<td>Health Safety &amp; Environmental Management System</td>
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<td>HSWA</td>
<td>Health and Safety at Work Act, UK</td>
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<tr>
<td>HVAC</td>
<td>Heating, Ventilation and Air Conditioning</td>
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<td>IADC</td>
<td>International Association of Drilling Contractors</td>
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<tr>
<td>ICP</td>
<td>Independent Competent Person</td>
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<td>IEC</td>
<td>International Electrotechnical Commission</td>
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<td>IMO</td>
<td>International Maritime Organization</td>
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<td>IRF</td>
<td>International Regulators Forum</td>
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<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>ISM</td>
<td>International Safety Management Code - IMO</td>
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<td>ISPS</td>
<td>International Ship and Port Security Code - IMO</td>
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<tr>
<td>JHA</td>
<td>Job Hazard Analysis</td>
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<td>JSA</td>
<td>Job Safety Analysis</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
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<tr>
<td>LPG</td>
<td>Liquefied Petroleum Gases</td>
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<tr>
<td>MAE</td>
<td>Major Accident Event</td>
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<tr>
<td>MAR</td>
<td>Management and Administration Regulations, UK</td>
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<td>MARPOL</td>
<td>International Convention for the Prevention of Marine Pollution</td>
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<tr>
<td>MH</td>
<td>Major Hazard</td>
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<tr>
<td>MHSWR</td>
<td>Management of Health and Safety at Work Regulations, UK</td>
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<tr>
<td>MODU</td>
<td>Mobile Offshore Drilling Unit</td>
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<td>MOB</td>
<td>Man Overboard Boat</td>
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<td>MOC</td>
<td>Management of Change</td>
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<td>MS</td>
<td>Management System</td>
</tr>
<tr>
<td>NACE</td>
<td>NACE International (formerly National Association of Corrosion Engineers)</td>
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<tr>
<td>NDT</td>
<td>Non-destructive testing</td>
</tr>
<tr>
<td>NEB</td>
<td>National Energy Board, Canada</td>
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<td>NGL</td>
<td>Natural Gas Liquids</td>
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<tr>
<td>NOGEPA</td>
<td>Netherlands Oil and Gas Exploration and Production Association</td>
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<tr>
<td>NOPSA</td>
<td>National Offshore Petroleum Safety Authority, Australia</td>
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<tr>
<td>NORSOK</td>
<td>Standardization Organizations in Norway</td>
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<tr>
<td>NPD</td>
<td>Norwegian Petroleum Directorate (now PSA Norway)</td>
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<tr>
<td>NSOAF</td>
<td>North Sea Offshore Authorities Forum</td>
</tr>
<tr>
<td>OGP</td>
<td>International Association of Oil and Gas Producers</td>
</tr>
<tr>
<td>OHSAS</td>
<td>Occupational Health and Safety Management System</td>
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<tr>
<td>OIM</td>
<td>Offshore Installation Manager (Person in Charge)</td>
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<td>OREDA</td>
<td>Offshore Reliability Data</td>
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<tr>
<td>OWH</td>
<td>Other Workplace Hazard</td>
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<tr>
<td>PA</td>
<td>Public Address</td>
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<td>PEM</td>
<td>Physical Effects Modelling</td>
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<td>PFEER</td>
<td>Prevention of Fire and Explosion and Emergency Response Regulations, UK</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>PHA</td>
<td>Preliminary Hazard Analysis</td>
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<td>PIC</td>
<td>Person in Charge (OIM)</td>
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<tr>
<td>PLL</td>
<td>Potential Loss of Life</td>
</tr>
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<td>PM</td>
<td>Preventative Maintenance</td>
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<td>PMS</td>
<td>Planned Maintenance Systems</td>
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<td>POB</td>
<td>Persons on Board</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<td>PSA</td>
<td>Petroleum Safety Authority Norway</td>
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<td>PTIL</td>
<td>Petroleumstilsynet (Petroleum Safety Authority Norway)</td>
</tr>
<tr>
<td>PTW</td>
<td>Permit to Work</td>
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<tr>
<td>PUWER</td>
<td>Provision and Use of Work Equipment Regulations, UK</td>
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<tr>
<td>QA</td>
<td>Quality Assurance</td>
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<tr>
<td>QRA</td>
<td>Quantitative Risk Assessment</td>
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<td>RAM</td>
<td>Risk Assessment Matrix</td>
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<tr>
<td>RIE</td>
<td>Risk Inventory and Evaluation</td>
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<tr>
<td>ROV</td>
<td>Remote Operated Vehicle</td>
</tr>
<tr>
<td>SHIDAC</td>
<td>Structured Hazard Identification, Assessment &amp; Control</td>
</tr>
<tr>
<td>SIMOPS</td>
<td>Simultaneous Operations</td>
</tr>
<tr>
<td>SMS</td>
<td>Safety Management System</td>
</tr>
<tr>
<td>SOOB</td>
<td>Summary of Operation Boundaries</td>
</tr>
<tr>
<td>SSoM</td>
<td>State Supervision of Mines, Netherlands</td>
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<tr>
<td>SOLAS</td>
<td>Safety of Life at Sea, International Maritime Organization</td>
</tr>
<tr>
<td>TEMPSC</td>
<td>Totally Enclosed Motor Propelled Survival Craft</td>
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<td>TR</td>
<td>Temporary Refuge</td>
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<tr>
<td>TRA</td>
<td>Task Risk Assessment</td>
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<tr>
<td>UPS</td>
<td>Uninterruptible Power Supply</td>
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<tr>
<td>WOAD</td>
<td>World Offshore Accident Database</td>
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</table>
A.2.2 DEFINITIONS

IADC recognises the global variation in the meaning and understanding of commonly used terms in Risk Management. In an effort to overcome this and provide more clarity for Drilling Contractors and other users of this document, IADC has adopted the following definitions for the words and phrases used throughout this guideline. These definitions predominantly reflect those stated in International Standards referenced in Appendix 1 of this guideline. In a few instances, industry accepted definitions have been added to address specific national and or regional terminology.

Activity
Work to be carried out as part of a process characterized by a set of specific inputs and tasks that produce a set of outputs to meet customer requirements.

Auditing (see also Risk Management Audit)
A structured independent assessment of the efficiency, effectiveness, and reliability of the management system.

ALARP (As Low As Reasonably Practicable)
A process for assessing the amount of effort and resources that should reasonably be applied to reduce risk. Reducing a risk to a level which is ALARP involves objectively determining the balance where the effort and cost of further reduction measures become disproportionate to the additional amount of risk reduction obtained.

Availability
Probability that a system will operate on demand.

Barrier (See also Control and Defence)
Measure which reduces the probability of releasing a hazard’s potential for harm or which reduces its consequences. (Barriers are Controls or Defences.)

The hierarchy of barriers is:
1. prevention,
2. detection,
3. control,
4. mitigation,
5. emergency response.

Other Related Terms and Definitions:
API RP 96 (2013): Components or practices that contribute to the total system reliability to prevent or stop formation fluid or gas flow.
ISO-17776 - Measure which reduces the probability of realizing a hazard’s potential for harm and which reduces its consequences

Blow-out
An uncontrolled escape of reservoir fluid.

Cause
Anything with the potential to release a hazard. Cause classes include (but are not limited to): thermal energy, chemical energy, biological energy, radiation, kinetic energy, electrical energy, climatic condition, uncertainty or human factors.
Classification
A service provided by Classification Societies which establishes and administers standards, known as Rules, for the design, construction and periodic survey of merchant ships and other marine and offshore structures.

Classification certifies adherence to these Rules, and means that a vessel possesses the structural and mechanical fitness required for its intended service.

Class Rules
Rules set by the Classification Societies and intended to ensure safety of lives, the protection of assets and the marine environment.

Consequence
An event or chain of events that results from the release of a hazard.

Other Related Terms and Definitions:

Control (See also Barrier)
Barrier which reduces the probability of releasing the hazard’s potential for harm. (Preventing the Top Event.)

Other Related Terms and Definitions:

Cost Benefit Analysis (CBA)
An analysis which evaluates the costs to be made versus the benefits obtained to reduce risk associated with an activity.

Defeating Factor
Condition that defeats a barrier, leading to increased risk.

Defeating Factor Barrier
Measure put in place to prevent or mitigate the effects of a Defeating Factor.

Defence (See also Barrier)
Barrier which reduces the consequences of the release of a hazard by limiting the chain of events arising from the Top Event.

Other Related Terms and Definitions:
IADC HSE Case Guidelines Issue 02 – (Control) - Means of intervention permitted by the design (e.g., pressure relief valves, emergency power supplies), hardware (e.g., dump tanks, coolant sprays), or the presence of manually or automatically initiated ESD procedures which are intended to contain a developing situation so that escalation to a major accident may be avoided.

Diversity
The ability to perform the same function through a number of different and independent means.

Electrical Equipment and Power Systems
Electrical equipment and power systems include all plant and apparatus designed for the generation, conversion, storage, distribution, transformation or use of electricity.
**Electrical Isolation**
Electrical isolation is the secure, proven disconnection and separation of a circuit or item of equipment from every source of electrical energy.

**Environment**
The surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation.

**Environmental Aspect**
Element of an organization’s activities, products or services that can interact with the environment.

**Other Related Terms and Definitions:**
- ISO-17776 – Element of an organization’s activities, products or services that can interact with the environment. [ISO 14001]
- IADC HSE Case Guidelines Issue 02 – Element of an organization’s activities or services that can interact with the environment.

**Environmental Impact**
Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organization’s activities, products or services.

**Other Related Terms and Definitions:**
- ISO-17776 – Any change to the environment whether adverse or beneficial, wholly or partially resulting from an organization’s activities, products or services. [ISO 14001]
- IADC HSE Case Guidelines Issue 02 – Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization’s activities or services.

**Environmental Significance**
A threshold criteria for judging the significance of an environmental aspect.

**Escalation**
Spread of the impact of a hazardous event to equipment or other areas, thereby causing an increase in the consequences of the event.

**Other Related Terms and Definitions:**
- ISO-17776 – Spread of the impact of a hazardous event to equipment or other areas, thereby causing an increase in the consequences of the event

**Escape**
The process of leaving an offshore installation in the event that part, or all, of an evacuation and / or communication system fails, whereby personnel on the MODU make their way directly to the sea.

**Evacuation**
The planned method for leaving an offshore installation in an emergency, e.g., helicopter or TEMPS.

**Event**
Occurrence or change of a particular set of circumstances.

**Other Related Terms and Definitions:**
- ISO Guide 73:2009 3.5.1.3 – occurrence or change of a particular set of circumstances

[ISO 31000:2009 2.17]
**Exposure**
Extent to which an organization and/or stakeholder is subject to an event.

**Other Related Terms and Definitions:**
*ISO Guide 73:2009 3.6.1.2* – extent to which an organization and/or stakeholder is subject to an event

**Fatal Accident Rate (FAR)**
The number of calculated fatalities that will occur for every 100 million man-hours worked.

**Failure Modes and Effects Analysis (FMEA)**
A hazard identification technique in which known failure modes of components or features of a system are considered and undesired outcomes are noted. FMEA is related to Fault Tree and Event Tree Analyses.

**Functional Requirements**
Minimum criteria which should be satisfied to meet the stated health, safety and environmental objectives.

**Other Related Terms and Definitions:**
*ISO-17776* – Minimum criteria which should be satisfied to meet the stated health, safety and environmental objectives

*IADC HSE Case Guidelines Issue 02* – (Risk Acceptance Criteria) – A description of the target performance, to satisfy objective corporate policy, with regard to the safe and efficient operability and functionality of the installation, facility or unit as a whole, or major systems within it.

*IADC HSE Case Guidelines Issue 02* – (Health, Safety and Environmental Performance Criteria) – Standards or benchmarks, quantified where possible, that provide measures against which an organization can determine the degree to which they are succeeding in managing risks, and hence in meeting their objectives.

**Functionality**
The ability of a system to perform its specified role. This may be characterized and demonstrated by identifying critical functional parameters.

**General Workplace Practices**
Routine practices that are common to many industries and businesses, e.g., operations in construction and maintenance. Local regulations or industry standards often exist for the practice or elements of the practice.

**Harm**
Physical injury or damage to the health of people, or damage to property or the environment.

**Other Related Terms and Definitions:**
*IADC HSE Case Guidelines Issue 02* – The damage, injury or ill-health, whether physical or mental, inflicted upon animate or inanimate objects.

**Hazard**
An intrinsic property of anything with the potential to cause harm. Harm includes ill-health and injury, damage to property, plant, products or the environment, production losses, or increased liabilities.

**Other Related Terms and Definitions:**
*ISO Guide 73:2009 3.5.1.4* – source of potential harm
IADC HSE Case Guidelines Issue 02 – The intrinsic property or ability of an agent with the potential to cause harm, including ill-health and injury, damage to property, plant, products or the environment, production losses, or increased liabilities.

Hazard Hierarchy
A checklist of hazards, consequences and sources which may be used, as appropriate, for risk assessment (risk identification and assessment). Before using the checklist it should be reviewed to confirm that it is appropriate and complete for the intended application.

Hazard Identification (HAZID)
A process to find, list and characterize hazards.

Hazardous Activity
Activity or task which exposes the person(s) carrying out the task to a hazard, e.g., working at height, welding, etc.

Hazardous Event
Incident which occurs when a hazard is realized. (Not all Hazardous Events are Top Events; Hazardous Events can also be Consequences.)

Other Related Terms and Definitions:
ISO-17776 – Incident which occurs when a hazard is realized

Hazardous Operation (See also Operation)
Operation with the potential to release one or more Major Hazards or defeat Barriers for one or more Major Hazards.

Hazardous Situation
Circumstances in which people, property or the environment are exposed to one or more hazards.

Hazard Register
Brief, but complete, summary that demonstrates that hazards have been identified, assessed, and that barriers (both controls and defences) are in place.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.2.4 – risk register – record of information about identified risks
ISO-17776 – Document providing a brief, but complete, overview of the identified hazards and the measures necessary to manage them

HSE Critical Activity
Activity or task which provides or maintains Barriers. (These tasks may or may not be hazardous in themselves, e.g., monitoring alarms, gas detector testing, Permit-To-Work.)

Other Related Terms and Definitions:
IADC HSE Case Guidelines Issue 02 – Activity or task which exposes the person(s) carrying out the task to hazards [interpretation from context]

HSE Critical System / Equipment
Any part of an installation (system, equipment, software, etc.) which: has the purpose of preventing the release, or limiting the effect of, a major hazard; or could cause, or substantially contribute to, the release of a major hazard if it failed.
Other Related Terms and Definitions:

**IADC HSE Case Guidelines Issue 02** – (Safety Critical System/Element) – Such part of an installation and such of its plant (including computer programs), or any part thereof; a) the failure of which could cause or contribute substantially to a major accident; or b) the purpose of which is to prevent, or limit the effect of a major accident.

**HSE Management Objectives**
The goals, in terms of health, safety and environmental performance that an organization sets for itself to achieve.

**Human Error**
Intended and unintended behaviour by people which results in an action, omission or occurrence that directly causes a Barrier to become ineffective or to fail.

**Human Factors**
The interactions between people, the organisation and the plant, equipment and systems that they interface with. It is also sometimes defined as “fitting the work to the worker” or “the science and practice of designing systems to fit people”.

**IMO MODU Code (‘79, ’89 & ‘09)**
Standards set by the International Maritime Organization for the design, construction and other safety measures for mobile drilling units in order to minimize the risks to the unit, to the personnel onboard and to the environment.

**Incident**
Event, or chain of events, which cause, or could have caused, injury, illness and/or damage (loss) to assets, the environment or third parties.

Other Related Terms and Definitions:

**ISO-17776** – Event, or chain of events, which cause, or could have caused, injury, illness and/or damage (loss) to assets, the environment or third parties

**IADC HSE Case Guidelines Issue 02** – Includes all undesired circumstances and occurrences that have the potential to cause accidents.

**IADC HSE Case Guidelines Issue 02** – (Accident) – Includes any undesired circumstances which gives rise to ill-health or injury, damage to property, plant, products or the environment.

**Individual Risk Per Annum (IRPA)**
The probability that an individual will become a fatality each year.

**Job Safety Analysis (JSA)**
A method that can be used to identify, analyze and record:
1. the steps involved in performing a specific job;
2. the existing or potential safety and health hazards associated with each step; and
3. the recommended action(s)/procedure(s) that will eliminate or reduce these hazards and the risk of an injury or illness.

(Used interchangeably with the terms “Job Hazard Analysis”, but also refer to “Task Risk Analysis” for the purposes of this guideline.)
**Level of Risk**
Magnitude of a risk or combination of risks, expressed in terms of the combination of consequences and their likelihood.

Other Related Terms and Definitions:

**Likelihood** (see also Probability)
Chance of something happening.

Other Related Terms and Definitions:

NOTE 1: In risk management terminology, the word “likelihood” is used to refer to the chance of something happening, whether defined, measured or determined objectively or subjectively, qualitatively or quantitatively, and described using general terms or mathematically [such as a probability or a frequency over a given time period].

NOTE 2: The English term “likelihood” does not have a direct equivalent in some languages; instead, the equivalent of the term “probability” is often used. However, in English, “probability” is often narrowly interpreted as a mathematical term. Therefore, in risk management terminology, “likelihood” is used with the intent that it should have the same broad interpretation as the term “probability” has in many languages other than English.

**Major Hazard** (note: also refer to any applicable regulatory definition.)
Hazard with the potential to result in:

a. multiple fatalities or permanent total disabilities;
b. extensive damage to structure at installation or plant;
c. massive effect to the environment (persistent and severe environmental damage that may lead to loss of commercial, recreational use, or loss of natural resources over a wide area) (alternatively: severe environmental damage that will require extensive measure to restore beneficial uses of the environment).

Other Related Terms and Definitions:
IADC HSE Case Guidelines Issue 02 – hazards with potential to cause multiple fatalities, fire/explosion etc.

**Management Review**
The formal evaluation of a company's management system.

**Management System**
A structured set of interdependent doctrines, processes, documents and principles that are intended to ensure that the activities of an organization are directed, planned, conducted and controlled in such a way to provide reasonable assurance that the objectives of the organization are met.

**Mitigation**
Limitation of the undesirable effects of a particular event.

Other Related Terms and Definitions:
ISO-17776 – Limitation of the undesirable effects of a particular event
IADC HSE Case Guidelines Issue 02 – Means taken to minimize the consequences of an incident that has occurred.

MODU HSE Case
A formal demonstration that the Health Safety Environmental risks associated with the MODU have been assessed and are being effectively managed.

Monitoring
The repetitive and continued observation, measurement and evaluation of specific quality or performance criteria, to follow changes over a period of time and for a defined purpose.

This term is sometimes further qualified to identify its specific purpose such as Environmental Monitoring, Health Monitoring, etc. The monitored criteria are compared with the Screening Criteria to appraise compliance with regulatory standards and how well the operation is meeting company objectives.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.2.1 – continual checking, supervising, critically observing or determining the status in order to identify change from the performance level required or expected. [ISO 31000:2009 2.28]

Muster
Process of accounting for all personnel, in a drill, simulated emergency or real emergency.

Muster Point
A place of assembly for accounting all personnel assigned to that point.

Muster Time
The elapsed time for personnel to assemble at their designated Muster Station and complete checks, from first call to full muster check.

Non-Hazardous Area
Any area not classified as Zone 0, 1 or 2 and deemed to be non-hazardous with respect to the absence of any possibility of occurrence of a flammable atmosphere.

Operation (see also Hazardous Operation)
A set of physical activities and tasks within a process to achieve a desired result, e.g., running casing, rig move, etc.

Organization
An organization body or establishment, for example, a business or Company with more than one site, each site may be defined as an organization.

Other Workplace Hazard (also refer to any applicable regulatory definition.)
A Hazard with the potential to result in:

a. injury or ill health, up to and including single fatalities;
b. significant damage to structure or equipment at installation or plant;
c. limited environmental damage that will persist or require remedial action.

Other Workplace Hazard incorporates all hazards that are not Major Hazards (see definition of Major Hazards).
Other Related Terms and Definitions:

IADC HSE Case Guidelines Issue 02 – those that have potential to cause serious injury or ill health, including single fatalities. Within the Guidelines these hazards are referred to as Other Workplace Hazards and include Area and Task Hazards.

**Performance Standard**

Describes the essential requirements, which can be expressed in quantitative or qualitative terms, of the performance required of a system, item, equipment, or procedure that should be maintained throughout its working life. Some companies also refer to Performance Standards as goals or targets.

**Personal Protective Equipment**

Equipment intended to be held or worn by the worker to obtain protection from hazards.

**Potential Loss of Life (PLL)**

Expected number of statistical fatalities per year.

**Pollution**

Pollution is the introduction into the environment of substances or effects that are potentially harmful or interfere with man’s use of his environment or interfere with species or habitats.

**Probability** (see also Likelihood)

Measure of the chance of occurrence expressed as a number between 0 and 1, where 0 is impossibility and 1 is absolute certainty.

Other Related Terms and Definitions:

ISO Guide 73:2009 3.6.1.4 - Measure of the chance of occurrence expressed as a number between 0 and 1, where 0 is impossibility and 1 is absolute certainty.

**Quantitative Risk Assessment (QRA)**

The evaluation of the extent of risk arising, with incorporation of calculations based upon the frequency and magnitude of hazardous events.

**Residual Risk**

Risk remaining after risk treatment.

Other Related Terms and Definitions:


**Risk**

Combination of the probability of occurrence of a consequence and the severity of that consequence.

Other Related Terms and Definitions:


ISO-17776 – Combination of probability of an event and the consequences of the event

IADC HSE Case Guidelines Issue 02 – Means the likelihood that a specified undesired event will occur due to the realization of a hazard by, or during, activities, or by the products and services created by activities. The combination of the frequency, or probability, and the consequence of a specified hazardous event.

**Risk Acceptance**

Decision to accept risk in a given context based on the current values of society.
Other Related Terms and Definitions:

**ISO Guide 73:2009 3.7.1.6** – informed decision to take a particular risk.

**ISO-17776** – Risk which is accepted in a given context based on the current values of society

**Risk Analysis**
Systematic use of information to identify hazards and to estimate risk.

Other Related Terms and Definitions:

**ISO Guide 73:2009 3.6.1** – process to comprehend the nature of risk and to determine the level of risk **[ISO 31000:2009 2.21]**

**ISO-17776** – Use of available information to identify hazards and to estimate risk

**Risk Assessment**
Overall process of risk analysis and risk evaluation.

Other Related Terms and Definitions:


**ISO-17776** – Overall process of risk analysis and risk evaluation

**Risk Avoidance**
Decision not to become involved in, or action to withdraw from, a risk situation.

Other Related Terms and Definitions:

**ISO Guide 73:2009 3.8.1.2** – informed decision not to be involved in, or to withdraw from, an activity in order not to be exposed to a particular risk

**Risk Communication**
Exchange or sharing of information about risk between the decision-maker and other stakeholders.

Other Related Terms and Definitions:

**ISO Guide 73:2009 3.2.1** – communication and consultation – continual and iterative processes that an organization conducts to provide, share or obtain information, and to engage in dialogue with stakeholders regarding the management of risk. **[ISO 31000:2009 2.12]**

**Risk Criteria**
Terms of reference against which the significance of risk is evaluated.

Other Related Terms and Definitions:

**ISO Guide 73:2009 3.3.1.3** – terms of reference against which the significance of risk is evaluated **[ISO 31000:2009 2.22]**

**Risk Evaluation**
Process of comparing the estimated risk against given risk criteria to determine the significance of the risk.

Other Related Terms and Definitions:

**ISO Guide 73:2009 3.7.1** – process of comparing the results of risk analysis with risk criteria to determine whether the risk and/or its magnitude is acceptable or tolerable **[ISO 31000:2009 2.24]**

**Risk Identification**
Process of finding, recognizing and describing risks.
Other Related Terms and Definitions:

Risk Management
Coordinated activities to direct and control an organization with regard to risk.

Other Related Terms and Definitions:
ISO Guide 73:2009 2.1 – Coordinated activities to direct and control an organization with regard to risk [ISO 31000:2009 2.2]

Risk Management Audit
Systematic, independent and documented process for obtaining evidence and evaluating it objectively in order to determine the extent to which the risk management framework, or any selected part of it, is adequate and effective.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.2.6 - systematic, independent and documented process for obtaining evidence and evaluating it objectively in order to determine the extent to which the risk management framework, or any selected part of it, is adequate and effective

Risk Management Framework
Set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organization.

Other Related Terms and Definitions:
ISO Guide 73:2009 2.1.1 - Set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organization. [ISO 31000:2009 2.3]

Risk Management Process
Systematic application of management policies, procedures and practices to the activities of communicating, consulting, establishing the context, and identifying, analysing, evaluating, treating, monitoring and reviewing risk.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.1 – Systematic application of management policies, procedures and practices to the activities of communicating, consulting, establishing the context, and identifying, analysing, evaluating, treating, monitoring and reviewing risk [ISO 31000:2009 2.8]

Risk Matrix
Tool for ranking and displaying risks by defining ranges for consequence and likelihood.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.6.1.7 – tool for ranking and displaying risks by defining ranges for consequence and likelihood

Risk Optimization
Process, related to a risk, to minimize the negative and to maximize the positive consequences and their respective probabilities.

Risk Owner
Person or entity with the accountability and authority to manage a risk.
Other Related Terms and Definitions:
ISO Guide 73:2009 3.5.1.5 – person or entity with the accountability and authority to manage a risk [ISO 31000:2009 2.7]

Risk Profile
Description of any set of risks.

Other Related Terms and Definitions:

Risk Register
(See Hazard Register)

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.2.4 – record of information about identified risks

Risk Retention
Acceptance of the burden of loss, or benefit of gain, from a particular risk.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.1.5 – acceptance of the potential benefit of gain, or burden of loss, from a particular risk

Risk Sharing
Form of risk treatment involving the agreed distribution of risk with other parties

Other Related Terms and Definitions:
ISO Guide 73:2009 3.8.1.3 – risk sharing – form of risk treatment involving the agreed distribution of risk with other parties
IADC HSE Case Guidelines Issue 02 – Risk Transfer - Sharing with another party the burden of loss, or benefit of gain, for a risk.

Risk Source
Element which alone or in combination has the intrinsic potential to give rise to risk.

Other Related Terms or Definitions:
ISO Guide 73:2009 3.5.1.2 – element which alone or in combination has the intrinsic potential to give rise to risk [ISO 31000:2009 2.16]

Risk Tolerance
Organization’s or stakeholder’s readiness to bear the risk after risk treatment in order to achieve its objectives.

Other Related Terms and Definitions:
ISO Guide 73:2009 3.7.1.3 - Organization’s or stakeholder’s readiness to bear the risk after risk treatment in order to achieve its objectives

Risk Treatment
The process of selection and implementation of measures to modify risk.

Other Related Terms and Definitions:

Safety Committee
A committee of management and staff representatives with the remit to advise on and assess the adequacy of preventive measures affecting health, safety and environment.
**Screening Criteria**
Values, targets or performance standards used to evaluate or compare the significance of an identified hazard, event or associated risk to determine the tolerability. They may be defined both in quantitative and qualitative terms.

Screening Criteria includes (but is not limited to): regulatory requirements, industry standards, client requirements, internal company requirements (based on company values and experience).

**Other Related Terms and Definitions:**
- **ISO-17776** – Target or standard used to judge the tolerability of an identified hazard or effect
- **IADC HSE Case Guidelines Issue 02** – (Acceptance Criteria) – The limits within which risks are acceptable.

**SOLAS**
International Convention of the International Maritime Organization, dealing with safety of life at sea.

**SHIDAC (Structured Hazard Identification, Assessment and Control)**
Structured Hazard Identification, Assessment and Control (SHIDAC) Process incorporating the basics of fault-tree and event-tree, implementing measures to control hazards and to recover in case of barrier failure.

A key deliverable is the identification or determination of Critical Activities or Tasks that ensure the identified Barriers are established, maintained and effective.

The steps are:
1. Identify the hazards
2. Assess the potential consequences, their likelihoods and their associated risks
3. Identify hazard Control Barriers to prevent release, and
4. Identify Defence Barriers to protect people, assets, environment and reputation in the event of such a hazard release.

**Source**
Reason for the presence of a cause or defeating factor, or for the presence of the hazard itself. Sources can be operations (e.g., running casing), necessary equipment (e.g., pressure vessel, energized electrical panel, etc.), necessary materials (e.g., hazardous chemicals), etc.

**Other Related Terms and Definitions:**
- **ISO Guide 73:2009 3.5.1.2** – risk source – element which alone or in combination has the intrinsic potential to give rise to risk.

**Source Identification**
Process to find, list and characterize sources.

**Stakeholder**
Person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity.

**Other Related Terms and Definitions:**
- **ISO Guide 73:2009 3.2.1.1** – person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity. [ISO 31000:2009 2.13]
Summary of Operation Boundaries (SOOB)
A summary of defeating factors (either single or in combination) that have the potential to exceed the tolerability limits of safe operations. These defeating factors are qualitatively determined using experience, and establish the boundaries in which operations are carried out.

Other Related Terms and Definitions:
Shell EP95-0010 (Revision 1 – 25 Jan 2001) – (Manual of Permitted Operations – MOPO) – Manual of Permitted Operations defines the limits of safe operation when barrier effectiveness is reduced. The limit of safe operation permitted during periods of escalated risk in either likelihood or consequence. The limit of safe operations if the barriers are reduced, removed, or purposely defeated.

Survey
An examination of a piece of equipment or a vessel in accordance with the appropriate Classification Society rules, guides, standards or other criteria of the Classification Society / Certifying Authority or in accordance with other specific standards. The examination may be required under classification or certification, or requested as a result of damage sustained by the piece of equipment or vessel.

Temporary Refuge (TR)
The facilities provided for monitoring and control of the incident and protecting personnel prior to evacuation.

Tolerability
Tolerability refers to the willingness to operate with a risk to secure certain benefits and in the confidence that it is being properly controlled.

Tolerability Criteria
Screening Criteria which express the level of health, safety and/or environmental performance deemed tolerable for a given period of phase of activities. This may be defined both in quantitative and qualitative terms.

Top Event
The release of a hazard is the first undesired event. This event is called the Top Event (the first Hazardous Event.) The Top Event is at the end of the fault tree and at the beginning of an event tree.

Other Related Terms and Definitions:
ISO-17776 – Particular hazardous event considered in the development of fault and event trees

Verification Scheme
A written scheme of examination for ensuring that identified HSE-critical activities / tasks and equipment / systems are suitable and remain in good repair and condition.

Workplace
The whole area of an installation, including accommodation, to which workers have access in the context of their work, (i.e., all areas on the MODU).

Working Environment
The surroundings and conditions in which work is performed.
Waste
a. Any substance which constitutes a scrap material or an effluent or any other unwanted surplus substance arising from the application of any process; and
b. Any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled.

Work Equipment
Work equipment includes all machinery, apparatus, tools or plant used in the course of work.

References
- API RP 96 – Deepwater Well Design and Construction (First edition March 2013)
- IADC North West European Health, Safety & Environment Case Guidelines for Mobile Offshore Drilling Unit (Issue 2, 30th June 2004)
- IADC Report No. 107-12-R-1 - Guidelines for Preparing a MODU Verification Scheme (Issue: 1, 16 December 1996)
- UK HSE Safety Case Regulations
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A3 DRAWINGS & SCHEMATICS

This list has been developed only as a guide to the drawings that should be included in the HSE Case. It is recommended that Drilling Contractors consult the relevant national authority and where appropriate, national regulations, to ensure that the HSE Case contains the required documentation.

One drawing may contain relevant information for more than one title on the list, e.g. the General Arrangement drawings may contain sufficient detail on Temporary Refuge lay out.

General Arrangements
1. Outboard Profile
2. Main Deck Plan View
3. General Arrangement Tween Deck Spaces
4. General Arrangement of Accommodation

For Column Stabilised Units (Semi-Submersibles)
5. General Arrangement Columns
6. General Arrangement Pontoons

For Jack-up Units
7. General Arrangement of Leg/Spudcan
8. General Arrangement of Jacking System

Stability
9. Allowable VCG curves

Ballast & Bilge Arrangements
10. Ballast Piping Schematic
11. Bilge System

Drilling & Well Control
12. Mud Process Schematic
13. Choke and Kill Isometric
    Design Basis of the Relief System
    Description of the well control systems

Power Generation & Distribution
14. Main Power Single Line Diagram with Switchboard layout
15. Emergency Power Single Line
    Description of alarm, shutdown and interlock systems

Fire & Explosion
16. Electrical Area (Hazardous Area) Classifications
    Design basis for active and passive fire and explosion protective arrangements
17. Bulkhead Classification
18. Temporary Refuge
19. Fire Control Plan
20. Fire Main Schematic

Evacuation & Escape
    Design basis for emergency evacuation procedures
21. Emergency Plan (Station Bill / Muster List)
22. Escape Routes
23. Lifesaving Equipment Plan Certification

24. Listing of all relevant and valid certificates for the MODU
Appendix 4

to

Health, Safety and Environment Case Guidelines

for

Mobile Offshore Drilling Units

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# Appendix 4 Review Status

<table>
<thead>
<tr>
<th>Issue</th>
<th>Review Status</th>
<th>Date</th>
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<tr>
<td>01</td>
<td>First formal issue following receipt of NSOAF Acknowledgement</td>
<td>February 2003</td>
</tr>
<tr>
<td>02</td>
<td>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)</td>
<td>30 June 2004</td>
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<tr>
<td>3.1</td>
<td>First Global Issue - Complete document update of all parts and appendices. Draft issued for consultation and comment</td>
<td>6 March 2006</td>
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<tr>
<td>3.2</td>
<td>Formal issue of Global version, incorporating comments and suggestions made by all stakeholders.</td>
<td>3 October 2006</td>
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<tr>
<td>3.3</td>
<td>Legislative update for Denmark and Italy, amendments to Australian, The Netherlands, UK and Norwegian regulatory sections.</td>
<td>9 October 2007</td>
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<tr>
<td>3.3.1</td>
<td>Administrative Update</td>
<td>1 May 2009</td>
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<tr>
<td>3.3.2</td>
<td>Administrative Update</td>
<td>3 February 2010</td>
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<tr>
<td>3.5</td>
<td>Legislative updates for Denmark and New Zealand. Also European Union Safety Directive published June 2013.</td>
<td>1 January 2014</td>
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A4 COASTAL STATE LEGISLATION REFERENCE INDEX

This appendix contains information on:

- Contact details of the Regulatory Authorities in:
  - Australia
  - Netherlands
  - Denmark
  - Italy
  - UK
  - Norway
  - Germany
  - New Zealand

- Information regarding submission of the Cases for each regime.
- Reference indexes of the primary legislation as of June 2006.
- Reference index for ISM Code.
- Reference index to OHSAS 18001
- 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 *****

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.

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)
A4.1. AUSTRALIA

Regulator: National Offshore Petroleum Safety Authority (NOPSA)

Location: Level 15
100 St. Georges Tce.
Perth
WA 6001
Australia

Postal Address: GPO Box 2568
Perth
WA 6001
Australia

Telephone: +61 (0)8 6461 7000
Fax: +61 (0)8 6461 7037
E-mail: info@nopsa.gov.au
Web-site: www.nopsa.gov.au

Safety Case Submission Requirements and Acceptance

The duties of an Operator and others in relation to health & safety at a facility are specified in Schedule 7 of the Petroleum (Submerged Lands) Act 1967. Activities at (or in relation to) a facility to be in accordance with an accepted Safety Case, or as otherwise approved by NOPSA:

- 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 NOPSA where records 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 NOPSA 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 NOPSA, it must first be submitted to NOPSA by the operator. The safety case may relate to 1 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 1 or more facilities.

- After having received a Safety Case, NOPSA 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.

- NOPSA 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. NOPSA must give the operator a reasonable opportunity to change and resubmit a Safety Case that does not initially meet the requirements. NOPSA also has the option to accept a Safety Case for particular stages of the life of the facility, or to impose limitations or conditions.

- NOPSA 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 NOPSA may authorise departure from an accepted Safety Case. NOPSA is 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 include new technical knowledge, or new methods for identifying and assessing risks of major accident events, that make the Safety Case outdated. 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 NOPSA.

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, NOPSA 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 NOPSA 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 Contractor’s 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:

AUSTRALIAN LEGISLATION

Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Ref</th>
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<tbody>
<tr>
<td>Part 3 – Safety Cases</td>
<td>The Safety Case must contain:</td>
<td></td>
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<tr>
<td>Division 1 – Content of Safety Cases</td>
<td>• a Facility Description that complies with Regulation 9 – (2);</td>
<td>Part 3</td>
</tr>
<tr>
<td>Subdivision A – Contents of a Safety Case</td>
<td>• a detailed description of the Formal Safety Assessment for the MODU that complies with Regulation 9 – (3); and</td>
<td>Part 4</td>
</tr>
<tr>
<td>Regulation 9 – Facility description, formal safety assessment and safety management system</td>
<td>• a detailed description of the Safety Management System that complies with Regulation 9 – (4).</td>
<td>Part 2</td>
</tr>
<tr>
<td>(1)</td>
<td>The Safety Case must show that the three parts of the Safety Case are linked and contribute to controlling safety.</td>
<td></td>
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<tr>
<td>Part 3 – Division 1 – Subdivision A – Regulation 9 – (2)</td>
<td>The description of the facility must contain:</td>
<td>Parts 3 &amp; 4</td>
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<tr>
<td></td>
<td>• the layout of the facility;</td>
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<td>• the technical and other control measures identified as a result of the formal safety assessment;</td>
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<td></td>
<td>• the activities that will, or are likely to, take place at, or in connection with, the facility; and</td>
<td></td>
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<tr>
<td></td>
<td>• any other relevant matters.</td>
<td></td>
</tr>
<tr>
<td>Part 3 – Division 1 – Subdivision A – Regulation 9 – (3)</td>
<td>The formal safety assessment is an assessment, or series of assessments, conducted by the operator that:</td>
<td>Part 4</td>
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<tr>
<td></td>
<td>• identifies all hazards having the potential to cause a major accident event;</td>
<td>Part 4.4</td>
</tr>
<tr>
<td></td>
<td>• is a detailed and systematic assessment of the risk associated with each of those hazards, including the likelihood and consequences of each potential major accident event; and</td>
<td>Parts 4.5 &amp; 4.6</td>
</tr>
<tr>
<td></td>
<td>• identifies the technical and other control measures that are necessary to reduce that risk to a level that is as low as reasonably practicable.</td>
<td>Part 4.7</td>
</tr>
</tbody>
</table>

Note: A formal safety assessment relates only to major accident events.
The safety management system for a facility must:

- be comprehensive and integrated;  
- provide for all activities that will, or are likely to take place at, or in connection with the facility;  
- provide for the continual and systematic identification of hazards to health and safety of persons at or near the facility;  
- provide for the continual and systematic assessment of:
  - the likelihood of the occurrence, during normal or emergency situations, of injury or occupational illness associated with those hazards;  
  - the likely nature of such injury or occupational illness;  
- provide for the reduction to a level that is as low as reasonably practicable of risks to health and safety of persons at or near the facility including, but not limited to:
  - risks arising during evacuation, escape and rescue in case of emergency;  
  - risks arising from equipment and hardware;  
- provide for inspection, testing and maintenance of the equipment and hardware that are the physical control measures for those risks;  
- provide for adequate communications between the facility and any relevant:
  - facility; or  
  - vessel; or  
  - aircraft; or  
  - on-shore installation;  
- provide for any other matter that is necessary to ensure that the safety management system meets the requirements and objectives of these Regulations; and  
- specify the performance standards that apply.

Note  The safety management system must provide for all hazards and risks to persons at the facility, not just risks of major accident events.
The safety case for a facility must demonstrate that there are effective means of ensuring:

- the implementation of the safety management system;
- continual and systematic identification of deficiencies in the safety management system; and
- continual and systematic improvement of the safety management system.

The safety case for a facility must specify all Australian and international standards that have been applied, or will be applied, in relation to the facility or plant used on or in connection with the facility for the relevant stage or stages in the life of the facility for which the safety case is submitted.

(1) The safety case for a facility must specify:

- an office or position at the facility, the occupant of which is in command of the facility and responsible for its safe operation when on duty;
- an office or position at the facility, the occupant of which is responsible for implementing and supervising procedures in the event of an emergency at the facility; and
- the command structure that applies in the event of an emergency at the facility.

\textit{Note} The same person may occupy both of the offices or positions mentioned in the first and second paragraph above.

(2) The safety case must describe, in detail, the means by which the operator will ensure that, as far as reasonably practicable:

- the offices or positions mentioned in (1) above, are continuously occupied while the facility is in operation;
- the person who occupies each office or position mentioned in (1) above, has the necessary skills, training and ability to perform the functions of the office or position; and
- 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 3 – Safety Cases**

**Division 1 – Content of Safety Cases**

**Subdivision B – Safety Measures**

**Regulation 13 – Members of the workforce must be competent**

The safety case for a facility must describe the means by which the operator will ensure that each member of the workforce at the facility has the necessary skills, training and ability:

- to undertake routine and non-routine tasks that might reasonably be given to him or her:
  - in normal operating conditions;
  - in abnormal or emergency conditions;
  - during any changes to the facility; and
- to respond and react appropriately, and at the level that might be reasonably required of him or her, during an emergency.

**Part 3 – Safety Cases**

**Division 1 – Content of Safety Cases**

**Subdivision B – Safety Measures**

**Regulation 14 – Permit to work system for safe performance of various activities**

(1) The Safety Case in respect of a facility must provide for the operator of the facility to establish and maintain, in accordance with (2) below, a documented system of coordinating and controlling the safe performance of all work activities of members of the workforce at the facility including in particular:

- welding and other hot work;
- cold work (including physical isolation);
- electrical work (including electrical isolation);
- entry into, and working in a confined space;
- procedures for working over water; and
- diving operations.

(2) The system must:

- form part of the Safety Management System described in the Safety Case in force for the facility;
- identify the persons having responsibility to authorise and supervise work; and
- ensure that members of the workforce are competent in the application of the permit to work system.

**Part 3 – Safety Cases**

**Division 1 – Content of Safety Cases**

**Subdivision B – Safety Measures**

**Regulation 15 – Involvement of members of the workforce**

(1) The Drilling Contractor must demonstrate to the Safety Authority, to the reasonable satisfaction of the Safety Authority, that:

- in the development or revision of the Safety Case in relation to the facility, there has been effective consultation with, and participation of, members of the workforce; and
the Safety Case provides adequately for 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) above must be supported by adequate documentation.

(3) In this regulation, members of the workforce includes members of the workforce who are:

• identifiable before the Safety Case is developed; and

• working, or likely to be working, on the relevant facility.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision B – Safety Measures
Regulation 16 – 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:

• adequate means of inventory isolation and pressure relief in the event of an emergency;

• adequate means of gaining access for servicing and maintenance of the facility and machinery and other equipment on board the facility;

• adequate means of maintaining the structural integrity of a facility; and

• implementation of the technical and other control measures identified as a result of the formal safety assessment.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision B – Safety Measures
Regulation 17 – 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.
Part 3 – Safety Cases

Division 1 – Content of Safety Cases

Subdivision B – Safety Measures

Regulation 18 – Machinery and equipment

(1) The Safety Case in respect of a facility must specify the equipment required on the facility (including process equipment, machinery and electrical and instrumentation systems) that relates to, or may affect, the safety of the facility.

(2) The equipment must be fit for its function or use:

- in normal operating conditions;
- to the extent that it is intended to function, or be used, in an emergency — in case of emergency.

Part 3 – Safety Cases

Division 1 – Content of Safety Cases

Subdivision B – Safety Measures

Regulation 19 – Drugs and intoxicants

The safety case for a facility must describe the means by which the operator will ensure that there is in place, or will be put in place, a method of:

- securing, supplying, and monitoring the use of, therapeutic drugs on the facility;
- preventing the use of:
  - controlled substances (other than therapeutic drugs);
  - intoxicants;

on the facility.

Part 3 – Safety Cases

Division 1 – Content of Safety Cases

Subdivision C – Emergencies

Regulation 20 – Evacuation, escape and rescue analysis

(1) The safety case for a facility must contain a detailed description of an evacuation, escape and rescue analysis.

(2) The evacuation, escape and rescue analysis must:

- identify the types of emergency that could arise at the facility;
- consider a range of routes for evacuation and escape of persons at the facility in the event of an emergency;
- consider alternative routes for evacuation and escape if a primary route is not freely passable;
- consider different possible procedures for managing evacuation, escape and rescue in the event of an emergency;
- consider a range of means of, and equipment for, evacuation, escape and rescue;
- consider a range of amenities and means of emergency communication to be provided in a temporary refuge;
- consider a range of life saving equipment, including:
life rafts to accommodate safely the maximum number of persons that are likely to be at the facility at any time;

- equipment to enable that number of persons to obtain access to the life rafts after launching and deployment; and

- in the case of a floating facility — suitable equipment to provide a float-free capability and a means of launching; and

- 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.

**Part 3 – Safety Cases**

**Division 1 – Content of Safety Cases**

**Subdivision C – Emergencies**

**Regulation 21 – Fire and explosion risk analysis**

(1) The safety case for a facility must contain a detailed description of a fire and explosion risk analysis.

(2) The fire and explosion risk analysis must:

- identify the types of fires and explosions that could occur at the facility;

- consider a range of measures for detecting those fires and explosions in the event that they do occur;

- consider a range of measures for eliminating those potential fires and explosions, or for otherwise reducing the risk arising from fires and explosions;

- consider the incorporation into the facility of both automatic and manual systems for the detection, control and extinguishment of:

  - outbreaks of fire;

  and

  - leaks or escapes of petroleum;

- 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;

- consider the evacuation, escape and rescue analysis, in so far as it relates to fires and explosions; and
• 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.

Note In so far as it addresses major accident events, the fire and explosion risk analysis forms part of the formal safety assessment.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision C – Emergencies
Regulation 22 – Emergency communications systems

(1) The Safety Case in respect of a facility must provide for communications systems:
• within the facility;
• between the facility and:
  ▪ appropriate on-shore installations;
  ▪ appropriate vessels and aircraft; and
  ▪ other appropriate facilities;
that, in the event of an emergency in connection with the facility, is adequate for those kinds of communication.

(2) In particular, the Safety Case must provide for the communications systems of the facility to be:
• adequate to handle:
  ▪ a likely emergency on or relating to the facility; and
  ▪ the operation requirements of the facility; and
• protected so as to be capable of operation in an emergency to the extent specified by the Formal Safety Assessment relating to the facility.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision C – Emergencies
Regulation 23 – Control systems

The Safety Case in respect of a facility must make adequate provision for the facility, in the event of an emergency, in respect of:
• back-up power supply;
• lighting;
• alarm systems;
• ballast control; and
• emergency shut-down systems.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision C – Emergencies
Regulation 24 –

(1) The safety case for a facility must:
• describe a response plan designed to address possible emergencies, the risk of which has been identified in the formal safety assessment for the facility; and
• provide for the implementation of that plan.
Emergency preparedness

(2) The plan must:

- 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
- 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 in respect of a mobile facility must also specify systems that are adequate to:

- shut down or disconnect, in the event of emergency, all operations on the facility that could adversely affect the safety of the facility; and
- give appropriate audible and visible warnings of the shutting down or disconnecting of those operations.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases
Subdivision C – Emergencies
Regulation 26 – 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.

Part 3 – Safety Cases
Division 1 – Content of Safety Cases

(1) This regulation applies to the following documents:

(a) the safety case in force for the facility;
Subdivision D – Record Keeping

Regulation 27 – Arrangements for records

(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 the Safety Authority in accordance with regulation 46 (2).

(2) The safety case for a facility must include arrangements for:
• making a record of the documents;
• securely storing the documents and records:
  ▪ at an address nominated for the facility;
  and
  ▪ 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 by the Safety Authority.

(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 the Safety Authority.
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.
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## Working Conditions Act 1998 – revision 7th April 2005

*(Arbeidsomstandighedenwet 1998 - Revisie 2005)*

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<td>Chapter 3 Article 3.9i &amp; j</td>
<td>A list of the risk reduction measures, including a summary of all the research conducted in this framework</td>
<td>4.7</td>
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<td>Chapter 3 Article 3.9k</td>
<td>Details of performance standards for all protective and critical systems</td>
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<td>Chapter 3 Article 3.9l</td>
<td>Details of the environmental and functional boundaries within which the equipment and control systems of the mobile mining installation can function normally</td>
<td>3.2.1</td>
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<td>Chapter 3 Article 3.9m</td>
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<td>Chapter 3 Article 3.9o</td>
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### Working Conditions Act 1998 – revision 7th April 2005

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<td>Chapter 3 Article 3.9p</td>
<td>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</td>
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<td>The managers must regularly and systematically assess compliance with and effectiveness of a Safety and Health Document</td>
<td>Report to Industry 5.2</td>
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<td>Chapter 3 Article 3.13 Clause 3</td>
<td>If the results of the assessment referred to in Chapter 3 Art. 9.2, deem this necessary, the Managers must revise the Safety &amp; Health Document.</td>
<td>Report to Industry 5.2</td>
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<td>Chapter 3 Article 3.14</td>
<td>Emergency control plan</td>
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#### Other Relevant Information

- **Report to Industry 4.2 & 5.3**
  - A justification for any assumptions, conclusions and decisions made.
  - 4.7

- **Report to Industry 4.2 & 5.5**
  - Assessment and listing of the scenarios developed from escape, evacuation and rescue analysis
  - 4.6.3, 5.1.3

- **Report to Industry 5.6**
  - The process by which risks have been analysed (operational activities and critical tasks)
  - 4.2, 4.3, 4.4, 4.5 & 4.6

- **Report to Industry 4.2**
  - Determine the degree of compliance with the stated acceptance criteria
  - 4.6 & 4.7

- **Report to Industry 4.2 & 5.4**
  - Details of all key items, critical or protective systems
  - Part 3, 4.7.3

- **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, 4.9.3 & 6.3
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<td>Report to Industry 2.0, 4.2 &amp; 5.1</td>
<td>Risks to personnel have been eliminated or reduced to a level 'As Low As Reasonably Practicable'</td>
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<td>Report to Industry 2.0</td>
<td>Advances in technology and technical knowledge are adopted to improve existing situation</td>
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<td>A remedial action plan with priorities, dates and strategy for implementation</td>
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<td>Report to Industry 4.2 &amp; 5.1</td>
<td>A detailed assessment of the review, to determine the adequacy, appropriateness and effectiveness of the management system</td>
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<td>Report to Industry 4.2</td>
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<td>Report to Industry 4.2</td>
<td>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</td>
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<td>Report to Industry 4.2</td>
<td>Details of the verification scheme in place to monitor compliance with legislation and the safety and health document</td>
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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: ens@ens.dk

Web-site: www.ens.dk

**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).**

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<td>Section 48</td>
<td>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.</td>
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<tr>
<td>Section 50(3)</td>
<td>Persons under the age of 18 shall not be allowed to carry out work on offshore installations.</td>
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| 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.**

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<td>No financial burdens must be put on employees in connection with risk assessment and reduction as per sec. 5 (1) of Executive Order 686</td>
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<td>Section 24</td>
<td>External competence</td>
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*Executive Order No. 1509 of 15 December 2010 on Certain Aspects of the Organisation of Working Time on Offshore Installations.*

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<td>Daily rest periods, offshore periods, onshore leave, night work</td>
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<tr>
<td>Sections 16</td>
<td>Employer-employee agreements on deviation from standard rest</td>
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</table>
### Consolidated act no. 520 of 13 May 2013 on Safety, etc. on Offshore Installations for Exploration, Extraction and Transport of Hydrocarbons.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Ref.</th>
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| 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 |
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.

Section 4(5) Employer shall be construed as the company that is authorised to instruct the employees who carry out work on offshore installations.

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.

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.

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.

Section 8(1) On manned offshore installations the operating company shall appoint an offshore installation manager.

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.

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.

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.

Section 8(5) The operating company shall ensure that equipment, before put into service, fulfils existing legislation.

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.

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.
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.

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.

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.

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).

Section 10(6) The provisions in subsections (1)-(5) on the duties of the employer shall also apply to company managers.

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.

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.

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.

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.

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.

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.

Section 12(3) The supervisor shall participate in the co-operation on safety and health, cf. section 46 below.
Section 13(1) The employees shall participate in the co-operation on safety and health, cf. section 46 below. 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.

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.

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).

Section 13(5) Employees whose rights are infringed pursuant to subsection (4) can be awarded compensation.

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.

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.

Section 14(3) Employees whose rights have been infringed pursuant to subsection (2) can be awarded compensation.

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.

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.

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
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 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
i) have been reduced as much as reasonably practicable, 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.

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.

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.

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.

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).

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.

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.

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
secure manner.

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 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.

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.

Section 42  
(1) 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.

(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.

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.
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. 

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. 

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. 

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. 

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. 

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

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

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Section 14 Other risks. Risk assessment and reduction. Preventive measures. 4. (other workplace hazards)

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

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

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

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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° 624, 25th November 1996
(Decreto Legislativo 25 novembre 1996, n. 624)

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Part 1 – General Provisions (Disposizioni Generali)

Section 1 – Area of Application (Campo di Applicazione)

Article 1 Activities covered (Attività soggette) NA / information only
Article 2 Definitions (Definizioni) NA / information only
Article 3 Supervision by the Authorities (Vigilanza) 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 (Obblighi) Part 1
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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 & 4.9
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

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Article 18 Submission of Documentation (Trasmissione documentazione) NA / information only

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A4.5 UNITED KINGDOM

Regulator: Offshore Safety Division

Health & Safety Executive
Lord Cullen House
Fraser Place
Aberdeen
AB25 3UB
United Kingdom
Telephone: +44-1224-252500

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

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<td>Safety Case for non-production installation :-</td>
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<td>(a)Contains the particulars specified in regulation 12 and Schedule 3</td>
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<td>(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</td>
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<td>(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</td>
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(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

(1) 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 to ensure:

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

(ii) 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 1.2.5 & 2.5.1

(1) 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 1.2.5 & 1.2.6

(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:-
(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. 15 Power of Executive in relation to safety cases and related documents

(1) 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.
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) 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

(1) A duty holder shall:-

(a) ensure that, when he sends:-

(i) 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
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. 20 Review and revision of verification schemes

The 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. 21 Continuing effect of verification schemes

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

For information

Reg. 23 Exemptions

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 suitable diagrams, and a summary of the other design options which were considered;
(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. Conversion not part of HSE Case guideline scope
Para. 4 A description of:-
(a) the principal systems on the installation;
(b) the installation layout;
(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 Conversion not part of HSE Case guideline scope
(f) the basis of design for any wells to be connected to the installation.

Para. 5  A suitable plan of the intended location of the installation and of anything which may be connected to it, and particulars of:-

(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 activities in connection with an operation, which the installation may perform.

Para. 7  A general description of the means by which the management system of the operator will ensure that the structure and plant of the installation will be designed, selected, 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 prepared pursuant to sub-paragraph (b) of paragraph (2) of regulation 19.

Para. 9  Where a non-production installation is to be converted for use as a production installation, an explanation of why the owner considers the installation suitable for conversion.

Para. 10 Where a production installation is to be moved to a new location, an explanation of why the operator considers the installation suitable for the new location.

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).
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.

Para. 4  A description, with suitable diagrams, of:
(a) the main and secondary structure of the installation and its materials;
(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:
(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.

Para. 7  The maximum number of persons:-
(a) expected to be on the installation at any time; and
(b) for whom accommodation is to be provided.

Para. 8  Particulars of the plant and arrangements for the control of well operations, including those:-
(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:-
(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. N/A for MODU’s, for information only

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. N/A for MODU’s, for information only

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. N/A for MODU’s, for information only

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
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:-

(i) 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 co-operated 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.

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
Para. 3 A description, with suitable diagrams, of:-
(a) the main and secondary structure of the
installation and its materials;
(b) its plant; and
(c) the layout and configuration of its plant.

Para. 4 Particulars of the types of operation, and
activities in connection with an operation,
which the installation is capable of
performing.

Para. 5 The maximum number of persons:-
(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:-
(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.

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.

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
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(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. 10  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 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;
(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:-

(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. 13  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 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:-

(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

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:-

(a) from an installation, the name of the installation and the name and address of the duty holder for that installation; or
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:-
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.  See note above*

Para. 7  A description of:-
(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
(b) such hazards.  See note above*

Para. 8  In the case of a well which is to be drilled:-
(a) particulars, with suitable diagrams, of—
   (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.  See note above*
Para. 9 In the case of an existing well:-
(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

See note above*

Para. 10 Where a well operation is to be carried out by means of a non-production installation or 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 co-ordinate their management systems so as to reduce the risks from a major accident to comply with the relevant statutory provisions.

See note above*

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 holder for the installation in selecting persons:-
   a) to perform functions under the scheme; and
   b) to keep the scheme under review.

2.4, & Part 6

Para. 2 Arrangements for the communication of information necessary for the proper implementation, or revision, of the scheme to the persons referred to in paragraph 1.

2.4.6, & 6.5
Para. 3  The nature and frequency of examination and testing.  2.4.6, & 6.5

Para. 4  Arrangements for review and revision of the scheme.  2.4.6, & 6.5

Para. 5  The arrangements for the making and preservation of records showing—  2.4.6, & 6.5
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, & 6.5

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 appointed by him for the purpose and the Secretary of State shall notify the parties in writing of the name of the appointed person.  For information

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:-  For information
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.

Para.  4 An appointed person may give such directions as he thinks appropriate to give effect to his determination.

Para.  5 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 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 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
(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.

Para. 8

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.
(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 person 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 decision 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.
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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: Report - regulations for drilling installations in Great Britain and Norway.
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 www.psa.no. 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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A4.7 GERMANY

Regulator: Landesamt für Bergbau, Energie und Geologie (LBEG)
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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 (BGBl.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:
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,

¹ BGBl. = Bundesgesetzblatt (Official gazette of Federal Law)
### GERMAN LEGISLATION

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<td>Identify and evaluate all risks for the workers and present the results of this evaluation</td>
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</tr>
<tr>
<td>Article 3 (2) Nr. 3</td>
<td>The risk evaluation under Article 3 (1) Nr. 1 has to consider risks that result out of qualification, experience and ability of workers</td>
<td>2.2.1.4, 4.1</td>
</tr>
<tr>
<td>Article 3 (3) Nr. 1</td>
<td>Revision to the document is necessary whenever a worksite undergoes major alterations, extensions or renovations</td>
<td>1.5</td>
</tr>
<tr>
<td>Article 3 (3) Nr. 2</td>
<td>Revision to the document is necessary to prevent repetitions of major incidents/accidents</td>
<td>1.5</td>
</tr>
<tr>
<td>Article 3 (4)</td>
<td>The safety and health measures have to be checked regularly to control if they comply with the legislation. The result has to be documented</td>
<td>2.2.1.7, 6.1</td>
</tr>
<tr>
<td>Appendix 3 Nr. 1.1</td>
<td>Describe the particular sources of danger for the work places which might lead to major accidents</td>
<td>2.3.1.3</td>
</tr>
<tr>
<td>Appendix 3 Nr. 1.2</td>
<td>The consequences of the danger resulting out of the particular sources of danger have to be evaluated</td>
<td>1.7.4, 4.2.4</td>
</tr>
<tr>
<td>Appendix 3 Nr. 1.3</td>
<td>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</td>
<td>2.3.7, 4.1, 4.2.5, 5.1</td>
</tr>
</tbody>
</table>
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:


Acceptance Regime: See above.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHEDULE 4</td>
<td>INFORMATION REQUIRED IN SAFETY CASE FOR INSTALLATION</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>The name and address of the duty holder for the installation.</td>
<td>Not specified</td>
</tr>
<tr>
<td>2</td>
<td>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.”]</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>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”]</td>
<td>2.2.1.3</td>
</tr>
<tr>
<td></td>
<td>SAFETY MANAGEMENT SYSTEM</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>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.</td>
<td>2.0</td>
</tr>
<tr>
<td>5</td>
<td>The safety management system must address the matters set out in Schedule 1.</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>INSTALLATION</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>In relation to the installation,—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(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:</td>
<td>2.2.2.4</td>
</tr>
<tr>
<td></td>
<td>(b) a description, with scale diagrams, of,—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) in relation to a production installation, the intended location of the installation:</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>(ii) the main and secondary structure of the installation and its materials:</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(iii) the plant and equipment of the installation:</td>
<td></td>
<td>3.4</td>
</tr>
<tr>
<td>(iv) the layout and configuration of its plant:</td>
<td></td>
<td>3.1.3, 3.4</td>
</tr>
<tr>
<td>(v) any designated hazardous areas:</td>
<td></td>
<td>3.1.3, 3.5.1</td>
</tr>
<tr>
<td>(vi) in relation to a production installation, the connections to any pipeline or installation:</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>(vii) in relation to a production installation, any wells to be connected to the installation:</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>(c) particulars of the types of operation, and activities in connection with any operation that the installation is capable of performing:</td>
<td></td>
<td>2.3, 3.1, 4.7</td>
</tr>
<tr>
<td>(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:</td>
<td></td>
<td>2.2.3.6, 3.7</td>
</tr>
<tr>
<td>(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:</td>
<td></td>
<td>3.2, 3.2.1, 4.7</td>
</tr>
<tr>
<td>(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:</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>(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—</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>(i) the fluid that it conveys:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) its dimensions and layout:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) its contained volume at declared maximum allowable operating pressure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) any apparatus and works intended to secure safety:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(h)</td>
<td>in relation to an offshore installation, particulars of plant, equipment, and procedures for diving support and hyperbaric rescue:</td>
<td>3.9</td>
</tr>
<tr>
<td>(i)</td>
<td>a description of the areas that have been classified as hazardous, including the rated classification:</td>
<td>3.5.1</td>
</tr>
<tr>
<td>(j)</td>
<td>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:</td>
<td>3.5, 5.0</td>
</tr>
<tr>
<td>(k)</td>
<td>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:</td>
<td>3.4.6</td>
</tr>
<tr>
<td>(l)</td>
<td>a description of the arrangements for communication during an emergency—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) between persons on the installation:</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>(ii) in relation to an offshore installation, between the installation and other installations, supporting aircraft, and vessels:</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>(iii) between the installation and remote support locations and emergency services:</td>
<td>5.2</td>
</tr>
<tr>
<td>(m)</td>
<td>a description of the measures for limiting the extent of an emergency, including—</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(i) measures to combat fire and explosion; and</td>
<td>3.5, 5.0</td>
</tr>
<tr>
<td></td>
<td>(ii) emergency shutdown systems; and</td>
<td>3.5.3, 5.0</td>
</tr>
<tr>
<td></td>
<td>(iii) facilities for the monitoring and control of the emergency and for organizing evacuation:</td>
<td>3.6, 5.2, 5.4, 5.5</td>
</tr>
<tr>
<td>(n)</td>
<td>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:</td>
<td>3.5, 3.5.6, 5.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(o)</td>
<td>in relation to an offshore installation, a description of the temporary refuge arrangements that offer protection against an escalating major accident:</td>
<td>3.5, 3.5.6, 5.4</td>
</tr>
<tr>
<td>(p)</td>
<td>a description of the evacuation and escape systems.</td>
<td>3.6, 5.5</td>
</tr>
</tbody>
</table>

**MANAGEMENT OF MAJOR ACCIDENT HAZARDS**

7

A detailed description of the formal safety assessment for the installation, including a description of—

(a) all major accident hazards: | 4.0, 4.3 |
(b) an assessment of the risk associated with each major accident hazard: | 4.0, 4.3 |
(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, 4.7 |
(d) the performance standards for each control measure: | 4.3.3 |
(e) the assurance processes that will be put in place to confirm that the control measure remains fit for purpose: | 4.3.3, 4.9.3 |
(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: | 4.9.3 |
(b) the arrangements for reporting, analyzing, and learning from incidents and work-related illness: | 2.4.2, 6.3.1 |
(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, 4.9.3, 6.4 |
(e) the arrangements in place for independent and competent persons to verify that safety-critical elements remain effective: 2.4, 2.4.5, 6.4 |
(f) the arrangements in place for the periodic assessment of the installation's integrity. | 3.2.2 |
A4.9 INTERNATIONAL SAFETY MANAGEMENT CODE INDEX

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

<table>
<thead>
<tr>
<th>ISM Code Clause</th>
<th>Requirement</th>
<th>HSE Case Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preamble</td>
<td></td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1</td>
<td>The purpose of this Code is to provide an international standard for the safe management and operation of ships and for pollution prevention.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>2</td>
<td>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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>3</td>
<td>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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>4</td>
<td>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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>5</td>
<td>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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>6</td>
<td>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.</td>
<td>2.1</td>
</tr>
<tr>
<td>ISM CODE CLAUSE</td>
<td>REQUIREMENT</td>
<td>HSE CASE REF.</td>
</tr>
<tr>
<td>-----------------</td>
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<td>--------------</td>
</tr>
<tr>
<td><strong>Part 1 General</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Part 1.1 Definitions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.1</td>
<td>&quot;International Safety Management (ISM) Code&quot; 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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.2</td>
<td>&quot;Company&quot; 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.</td>
<td>3.1.1 &amp; 3.1.2</td>
</tr>
<tr>
<td>1.1.3</td>
<td>&quot;Administration&quot; means the Government of the State whose flag the ship is entitled to fly.</td>
<td>3.1.2</td>
</tr>
<tr>
<td>1.1.4</td>
<td>&quot;Safety management system&quot; means a structured and documented system enabling Company personnel to implement effectively the Company safety and environmental protection policy.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.5</td>
<td>&quot;Document of Compliance&quot; means a document issued to a Company which complies with the requirements of this Code.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.6</td>
<td>&quot;Safety Management Certificate&quot; 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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.7</td>
<td>&quot;Objective evidence&quot; 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.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.8</td>
<td>&quot;Observation&quot; means a statement of fact made during a safety management audit and substantiated by objective evidence.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.9</td>
<td>&quot;Non-conformity&quot; means an observed situation where objective evidence indicates the non-fulfilment of a specified requirement.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.10</td>
<td>&quot;Major non-conformity&quot; 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 systematic implementation of a requirement of this Code.</td>
<td>N/A Information Only</td>
</tr>
<tr>
<td>1.1.11</td>
<td>&quot;Anniversary date&quot; means the day and month of each year that corresponds to the date of expiry of</td>
<td>N/A Information Only</td>
</tr>
</tbody>
</table>
1.1.12 "Convention" means the International Convention for the Safety of Life at Sea, 1974, as amended

Part 1.2 Objectives

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

1.2.2 1 to 3 Safety management objectives of the Company should, inter alia:

1. provide for safe practices in ship operation and a safe working environment;

2. establish safeguards against all identified risks; and

3. 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:

1. compliance with mandatory rules and regulations; and

2. 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

1.3 The requirements of this Code may be applied to all ships

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. instructions and procedures to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation;

3. defined levels of authority and lines of communication between, and amongst, shore and shipboard personnel;

4. procedures for reporting accidents and non-conformities with the provisions of this Code;

5. procedures to prepare for and respond to emergency situations; and

6. procedures for internal audits and management.
Part 2 Safety & Environmental 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.

2.2 The Company should ensure that the policy is implemented and maintained at all levels of the organization, both ship-based and shore-based.

Part 3 Company Responsibilities & 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.

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.

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.

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.

Part 5 Master’s Responsibility and Authority

5.1 1 to 5 The Company should clearly define and document the master’s responsibility with regard to:

1. implementing the safety and environmental protection policy of the Company;

2. motivating the crew in the observation of that policy;

3. issuing appropriate orders and instructions in a clear and simple manner;

4. verifying that specified requirements are observed; and

5. reviewing the safety management system and reporting its deficiencies to the shore-based management.
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:

1. properly qualified for command;
2. fully conversant with the Company's safety management system; and
3. given the necessary support so that the master's duties can be safely performed.

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.

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.

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.

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.

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.

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.

2.2.4 & 2.2.1.4

2.2.4.3

2.2.3.3

2.2.4

2.2.4.3

2.2.4.4

2.2.4.4, 2.3.9

2.3.9

**Part 7 Development of Plans for Shipboard Operations**

The Company should establish procedures for the preparation of plans and instructions, including checklists as appropriate, for key shipboard

2.3.1, 2.3.4, 2.3.12, 2.3.13, 2.3.16, 2.3.17 & 2.3.18
operations concerning the safety of the ship and the prevention of pollution. The various tasks involved should be defined and assigned to qualified personnel.

**Part 8 Emergency Preparedness**

<table>
<thead>
<tr>
<th>ISM CODE CLAUSE</th>
<th>REQUIREMENT</th>
<th>HSE CASE REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>The Company should establish procedures to identify, describe and respond to potential emergency shipboard situations</td>
<td>2.3.3 &amp; Part 5</td>
</tr>
<tr>
<td>8.2</td>
<td>The Company should establish programmes for drills and exercises to prepare for emergency actions.</td>
<td>2.3.3 &amp; Part 5</td>
</tr>
<tr>
<td>8.3</td>
<td>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.</td>
<td>2.3.3 &amp; Part 5</td>
</tr>
</tbody>
</table>

**Part 9 Reports and Analysis of non conformities, accident and hazard occurrences**

<table>
<thead>
<tr>
<th>ISM CODE CLAUSE</th>
<th>REQUIREMENT</th>
<th>HSE CASE REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>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</td>
<td>2.4.2</td>
</tr>
<tr>
<td>9.2</td>
<td>The Company should establish procedures for the implementation of corrective action.</td>
<td>2.4</td>
</tr>
</tbody>
</table>

**Part 10 Maintenance of the Ship and Equipment**

<table>
<thead>
<tr>
<th>ISM CODE CLAUSE</th>
<th>REQUIREMENT</th>
<th>HSE CASE REF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>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</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td>10.2 1 to 4</td>
<td>In meeting these requirements the Company should ensure that:</td>
<td>2.3.19</td>
</tr>
<tr>
<td></td>
<td>1. inspections are held at appropriate intervals;</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td></td>
<td>2. any non-conformity is reported, with its possible cause, if known</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td></td>
<td>3. appropriate corrective action is taken, and</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td></td>
<td>4. records of these activities are maintained.</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td>10.3</td>
<td>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</td>
<td>2.3.19 &amp; 2.4</td>
</tr>
<tr>
<td>10.4</td>
<td>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.</td>
<td>2.3.2, 2.3.19 &amp; 2.4</td>
</tr>
</tbody>
</table>
Part 11 Documentation

11.1 The Company should establish and maintain procedures to control all documents and data which are relevant to the safety management system.

11.2 1 to 3 The Company should ensure that:
1. valid documents are available at all relevant locations;
2. changes to documents are reviewed and approved by authorized personnel, and
3. obsolete documents are promptly removed.

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.

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.

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.

12.3 The audits and possible corrective actions should be carried out in accordance with documented procedures.

12.4 Personnel carrying out audits should be independent 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.

12.6 The management personnel responsible for the area involved should take timely corrective action on deficiencies found

Part 13 Certification 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 that ship.
## Characteristics common to the Safety Management and Ship Security Systems

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<tr>
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<tr>
<td>ISM</td>
<td>4</td>
<td>The Company shall ensure that the master, the designated person, the company security officer and the ship security officer are given the necessary support to fulfil their duties and responsibilities.</td>
</tr>
<tr>
<td>ISPS</td>
<td>A-6.2 A-11</td>
<td>ISM 5.2 The Company shall prepare a clear statement emphasizing the 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.</td>
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<tr>
<td>ISPS</td>
<td>A-6.1</td>
<td>ISP A-9.4.4 / 9 A-13.4 A-10.1.1 A-10.1.2 A-10.1.3</td>
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<tr>
<td>ISM</td>
<td>10</td>
<td>ISM 10 The Company shall identify which equipment is critical and shall 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. The frequency for testing and calibration of on-board security equipment shall be defined.</td>
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<tr>
<td>ISM</td>
<td>12.2</td>
<td>ISM 12.2 The Company shall periodically evaluate the efficiency of the safety management system and the ship security plan and when needed, review them in accordance with procedures established by the Company.</td>
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<tr>
<td>ISPS</td>
<td>A-9.4.11 A-10.1.6 A-10.1.7 A-10.1.8</td>
<td>ISM 12.4 Personnel carrying out audits shall be independent of the areas being audited unless this is impracticable owing to the size and nature of the Company.</td>
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<tr>
<td>ISM</td>
<td>6.6</td>
<td>ISM 6.6 The Company shall establish procedures by which the ship’s personnel receive information on the safety management system and the ship security plan in a language or working language that they understand.</td>
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<td>ISPS</td>
<td>A-10.2</td>
<td>ISPS A-9.4.12 A-10.1.5</td>
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| ISM  | 9         | ISM 9 The Company shall ensure that non-conformities, potentially
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<td>12.6</td>
<td>hazardous situations, accidents, incidents and deficiencies are reported and made known within the system, so that they can be addressed, resolved promptly and measures taken to enhance efficiency.</td>
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<td>ISPS</td>
<td>A-9.4.12 A-12.2.5</td>
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</table>
A4.10  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.
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.

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.

   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;

   d) 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**:

   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 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.

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.

4.3.2

**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 employees and other relevant interested parties.

4.3.3

**Objectives:**

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 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):
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.

4.4 Implementation and operation
4.4.1 Structure and responsibility:
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 operation within the organization.

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

NOTE Resources include human resources and specialized skills, technology and financial resources.

The organization’s management appointee shall have defined roles, responsibilities and authority for:
   a) ensuring that OH&S management system requirements are established, implemented and maintained in accordance with this OHSAS specification;
<table>
<thead>
<tr>
<th>OHSAS 18001 Clause</th>
<th>Requirement</th>
<th>HSE Case Ref.</th>
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<tr>
<td>b) ensuring that reports on the performance of the OH&amp;S management system are presented to top management for review and as a basis for improvement of the OH&amp;S management system. All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&amp;S performance.</td>
<td>2.2.2.3, 2.2.4, 2.3.3, 2.3.8 &amp; 2.3.9</td>
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<td>4.4.2 Training, awareness and competence:</td>
<td>Personnel shall be competent to perform tasks that may impact on OH&amp;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:</td>
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<td>• the importance of conformance to the OH&amp;S policy and procedures, and to the requirements of the OH&amp;S management system;</td>
<td></td>
<td>2.3.8 &amp; 2.3.9</td>
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<td>• the OH&amp;S consequences, actual or potential, of their work activities and the OH&amp;S benefits of improved personal performance;</td>
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<td>• their roles and responsibilities in achieving conformance to the OH&amp;S policy and procedures and to the requirements of the OH&amp;S management system, including emergency preparedness and response requirements (see 4.4.7);</td>
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<td>• the potential consequences of departure from specified operating procedures.</td>
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<td>Training procedures shall take into account differing levels of:</td>
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<td>• responsibility, ability and literacy; and</td>
<td></td>
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<tr>
<td>• risk.</td>
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<td>4.4.3 Consultation and communication</td>
<td>The organization shall have procedures for ensuring that pertinent OH&amp;S information is communicated to and from employees and other interested parties. Employee involvement and consultation arrangements shall be documented and interested parties informed.</td>
<td>2.2.1.3, 2.2.3.2, 2.2.3.3, 2.2.3.4, 2.2.3.5, 2.3.9 &amp; 4.9</td>
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</table>
## 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

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 for effectiveness and efficiency.

### 4.4.5 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;

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 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.

The organization shall review its emergency preparedness and response plans and 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

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**

The organization shall establish and maintain procedures for defining responsibility and authority for:

• the handling and investigation of:
  ▪ accidents;
  ▪ incidents;
  ▪ non-conformances;
• taking action to mitigate any consequences arising from accidents, incidents or non-conformances;
• 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 non-conformances 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**

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 management system:
   1). conforms to planned arrangements for OH&S management including the requirements of this OHSAS specification;
   2). has been properly implemented and maintained; and
   3). 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.
## Corresponding Clauses within International Standards

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### A4.11 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.


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<td><strong>SECTION I - GENERAL PROVISIONS</strong></td>
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<td><strong>Article 1</strong></td>
<td><strong>Object</strong></td>
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<td>1.</td>
<td>The object of this Directive is to introduce measures to encourage improvements in the safety and health of workers at work.</td>
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<td>2.</td>
<td>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.</td>
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<tr>
<td>3.</td>
<td>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.</td>
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<tr>
<td><strong>Article 2</strong></td>
<td><strong>Scope</strong></td>
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<tr>
<td>1.</td>
<td>This Directive shall apply to all sectors of activity, both public and private (industrial, agricultural, commercial, administrative, service, educational, cultural, leisure, etc.).</td>
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<td>2.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Article 3</strong></td>
<td><strong>Definitions</strong></td>
</tr>
<tr>
<td></td>
<td>For the purposes of this Directive, the following terms shall have the following meanings:</td>
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<tr>
<td>(a).</td>
<td>worker: any person employed by an employer, including trainees and apprentices but excluding domestic servants;</td>
</tr>
<tr>
<td>(b).</td>
<td>employer: any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/or establishment;</td>
</tr>
<tr>
<td>(c).</td>
<td>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;</td>
</tr>
<tr>
<td>(d).</td>
<td>prevention: all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks.</td>
</tr>
</tbody>
</table>
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.

2. 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.

Article 8
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, fire-fighting 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 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**

1. 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 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.

6. 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.

7. 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. 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

(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


<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
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<td>SECTION I - GENERAL PROVISIONS</td>
<td></td>
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<tr>
<td>Article 1</td>
<td>Subject</td>
</tr>
<tr>
<td>1.</td>
<td>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).</td>
</tr>
<tr>
<td>2.</td>
<td>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.</td>
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<tr>
<td>Article 2</td>
<td>Definitions</td>
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<tr>
<td>For the purpose of this Directive:</td>
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<tr>
<td>(a)</td>
<td>mineral-extracting industries through drilling shall mean all the industries practising:</td>
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<td>-</td>
<td>extraction, in the strict sense of the word, of minerals through drilling by boreholes, and/or</td>
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<tr>
<td>(OJ N° L 183, 29. 6. 1989, p. 1.)</td>
<td>- prospection with a view to such extraction, and/or</td>
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<td>-</td>
<td>- preparation of extracted materials for sale, excluding the activities of processing the materials extracted;</td>
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<td>(b)</td>
<td>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.</td>
</tr>
<tr>
<td>SECTION II - EMPLOYERS’ OBLIGATIONS</td>
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<tr>
<td>Article 3</td>
<td>General obligations</td>
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<tr>
<td>1.</td>
<td>To safeguard the safety and health of workers, the employer shall take the necessary measures to ensure that:</td>
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<tr>
<td>(a)</td>
<td>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;</td>
</tr>
<tr>
<td>(b)</td>
<td>the operation of workplaces when workers are present takes place under the supervision of a person in charge;</td>
</tr>
<tr>
<td>(c)</td>
<td>work involving a special risk is entrusted only to competent staff and carried out in accordance with the instructions given;</td>
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<tr>
<td>(d)</td>
<td>all safety instructions are comprehensible to all the workers concerned;</td>
</tr>
<tr>
<td>(e)</td>
<td>appropriate first-aid facilities are provided;</td>
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<tr>
<td>(f)</td>
<td>any relevant safety drills are performed at regular intervals.</td>
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</tbody>
</table>
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.

3. 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**

1. 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 - OTHER 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 drilling, 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


(3) OJ N° C 191, 22.7.1991, p. 34.


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**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 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 to 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 fail-safe 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.


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.


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 non-smokers 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 life-saving 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 point 12.1 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.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
<th>HSE Case Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex I, Section 3</td>
<td>INFORMATION TO BE SUBMITTED IN A REPORT ON MAJOR HAZARDS FOR A NON-PRODUCTION INSTALLATION</td>
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<tr>
<td></td>
<td>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:</td>
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<tr>
<td>Annex I, Section 3 (1)</td>
<td>the name and address of the owner;</td>
<td>Not specified</td>
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<tr>
<td>Annex I, Section 3 (2)</td>
<td>A summary of any worker involvement in the preparation of the report on major hazards;</td>
<td>2.2.1.3</td>
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<td>Annex I, Section 3 (3)</td>
<td>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;</td>
<td>3.0, 3.2.4.3, 3.2.4.4</td>
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<tr>
<td>Annex I, Section 3 (4)</td>
<td>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;</td>
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<tr>
<td>Annex I, Section 3 (5)</td>
<td>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;</td>
<td>2.3.6, 4.3.1, 4.3.2, 4.4.2, 4.7</td>
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<tr>
<td></td>
<td>* Not specified</td>
<td></td>
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<td></td>
<td>“assessment of any oil spill response effectiveness”</td>
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<td>Annex I, Section 3 (6)</td>
<td>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;</td>
<td>2.3.6, 2.3.12, 2.3.17, 3.0, 3.5</td>
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<td></td>
<td>* Not specified</td>
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<td></td>
<td>“containment” and “prevention of fire and explosion”</td>
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<tr>
<th>Regulation</th>
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<tr>
<td>Annex I, Section 3 (7)</td>
<td>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;</td>
<td>2.0, 5.4.1, 5.5.1, 5.5.2 * Not specified “...in the event that all personnel are evacuated”</td>
</tr>
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<td>Annex I, Section 3 (8)</td>
<td>relevant codes, standards and guidance used in the construction and commissioning of the installation;</td>
<td>1.3, 3.1.2, 3.1.5, 3.2.1</td>
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<td>Annex I, Section 3 (9)</td>
<td>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;</td>
<td>4.0</td>
</tr>
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<td>Annex I, Section 3 (10)</td>
<td>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;</td>
<td>2.3.6, 2.3.13, 4.4.2</td>
</tr>
<tr>
<td>Annex I, Section 3 (11)</td>
<td>information, regarding the safety and environmental management system, that is relevant to the non-production installation;</td>
<td>2.0 * see Annex I, Section 9 for add’l info</td>
</tr>
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<td>Annex I, Section 3 (12)</td>
<td>an internal emergency response plan or an adequate description thereof;</td>
<td>5.1</td>
</tr>
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<td>Annex I, Section 3 (13)</td>
<td>a description of the independent verification scheme;</td>
<td>6.5</td>
</tr>
<tr>
<td>Annex I, Section 3 (14)</td>
<td>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;</td>
<td>2.3.12.1, 2.3.12.1.1</td>
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<td>Annex I, Section 3 (15)</td>
<td>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;</td>
<td>Annex 4, Please see note re: European Union Directives</td>
</tr>
<tr>
<td>Annex I, Section 3 (16)</td>
<td>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.</td>
<td>5.2.2</td>
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