

# **NOTICE**

This document is not intended to derogate from or substitute any requirements of the Republic of the Marshall Islands (RMI) Maritime Act 1990 (<u>MI-107</u>) or the RMI Maritime Regulations (<u>MI-108</u>).

This complementary printing of the Mobile Offshore Unit (MOU) Standards (<u>MI-293</u>) will not be automatically supplemented, and therefore, may be out of date.

The link to the updated version of this publication may be found at <u>www.register-iri.com</u> on the <u>MI-300</u> dedicated webpage.

Requests to be included in the email notification updating service, MI-300 Updates, may be sent to <u>publications@register-iri.com</u>.

The International Maritime Organization (IMO) has been notified of the MOU Standards (<u>MI-293</u>) and they are on file with and posted to the Global Integrated Shipping Information System (GISIS) as a Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code) Equivalency.

# ISSUE AND REVISION HISTORY (IRH)

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2014/2015 Rev. 1	05/15	Revised Notice page to reflect the link to the updated version of this document; hyperlinked documents where possible throughout; added new paragraphs under 3.0 on General/Common Requirements, added new 3.6.5 on Enclosed Space Entry and Rescue Drills & renumbered rest; deleted Annex I containing sample request for authorization form as form has been hyperlinked in 3.12.3; TOC updated to reflect above changes	M. McConnell	05/29/15

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## 1.0 INTRODUCTION, APPLICABILITY AND EXCLUSIONS

## 1.1 Introduction

- 1.1.1 The RMI MODU Standards, originally published in 2002, were based on regulatory standards available to the industry at the time of their writing. The RMI MOU Standards published in October 2013, replace, in their entirety, the RMI MODU Standards originally published in 2002. The RMI Maritime Administrator (hereinafter, the "Administrator") publishes these MOU Standards in accordance with existing international conventions and codes to which the RMI is a party (to the extent that it is reasonable and practicable to apply them), RMI laws and regulations, and practical experience.
- 1.1.2 These MOU Standards adopt as national regulation and make mandatory to all MOUs (as defined in §2.0 below), the IMO 1979 MODU Code; the IMO 1989 MODU Code; and the IMO 2009 MODU Code. These MOU Standards also impose additional requirements on RMI flagged MOUs; contain the Administrator's clarifications to and interpretations of the 1979, 1989, and 2009 MODU Codes (hereinafter, "MODU Codes"); and provide requirements for those MOUs (as defined in §2.0 below) constructed before 31 December 1981.
- 1.1.3 These MOU Standards contain the following substantive changes to the 2002 RMI MODU Standards:
  - .1 applying the MODU Codes to all MOUs, as defined in §2.0 below;
  - .2 including, in §3.0 below, a consolidation of general/common requirements that are applicable to all RMI flagged MOUs, as defined in §2.0 below, regardless of construction date;
  - .3 adding a new §8.0 which breaks down the Administrator's requirements based on service and industrial operation;
  - .4 addressing the design and technological advances which have taken place within the industry; and
  - .5 ensuring social responsibility as well as safety, security, and protection of the marine environment.

## 1.2 Applicability

- 1.2.1 These MOU Standards apply to all RMI flagged MOUs which include requirements by date of construction as follows:
  - .1 A unit constructed on or after 01 January 2012 must meet the requirements of the 2009 MODU Code and be issued a MODU Safety Certificate (2009). §4.0 of these MOU Standards contains the Administrator's interpretations of the 2009 MODU Code.
  - .2 A unit constructed on or after 01 May 1991 and prior to 01 January 2012, must meet the requirements of the 1989 MODU Code and be issued a MODU Safety Certificate (1989). §5.0 of these MOU Standards contains the Administrator's interpretations of the 1989 MODU Code.

- .3 A unit constructed on or after 31 December 1981 and prior to 01 May 1991 must meet the requirements of the 1979 Code and be issued a MODU Safety Certificate (1979). §6.0 of these MOU Standards contains the Administrator's interpretations of the 1979 MODU Code by the Administrator.
- .4 A unit constructed before 31 December 1981 must meet these MOU Standards including the requirements of §7.0 below for the issuance of a National MOU Document of Compliance (NDOC) and is considered an existing unit.
- 1.2.2 The provisions in §1.2.1 above do not preclude the issuance of a 1979, 1989, or 2009 MODU Code MODU Safety Certificate to a unit constructed prior to any of the effective dates noted above; provided, the unit in question is in full compliance with the provisions of the associated MODU Code. In special circumstances, the Administrator may issue an NDOC to a unit which was constructed on or after 31 December 1981 and does not fully comply with the provisions of the applicable MODU Code when construction, arrangement, or equipment deviations from MODU Code requirements exceed the scope for consideration as exemptions or equivalents and it is demonstrated to the satisfaction of the Administrator that they do not adversely affect the safety and/or integrity of the unit.
- 1.2.3 When a unit undergoes a conversion, modification, or change of use which substantially alters its service, dimensions, or capacity, it shall be subject to the provisions of the 2009 MODU Code and these MOU Standards as far as practicable.

### **1.3** Exclusions (Drilling, Production, and other associated Industrial Systems and Operations)

The MODU Codes do not include requirements for the drilling and production of subsea wells or the procedures for their control. Such operations (or other operations requiring specialist equipment and systems intended for the industrial function of the unit) are subject to control by the coastal State, and these MOU Standards do not specify equipment or procedures to carry out such operations. Such equipment and systems on each unit shall be designed, constructed, and maintained in accordance with recognized standards. A Classification Society's notation or equivalent coastal State certification scheme may be considered acceptable evidence of such equipment and system compliance with recognized and applicable standards.

## 2.0 **DEFINITIONS**

"Appropriate classification status" means current classification by any of the Classification Societies appointed as Recognized Organizations (ROs) for the RMI for the issuance of documents required by the International Convention for the Safety of Life at Sea (SOLAS), the International Load Line Convention (ILLC), the International Tonnage Convention (ITC), and the International Convention for the Prevention of Marine Pollution from Ships (MARPOL);

"Column-stabilized unit" means a unit with the main deck connected to the underwater hull or footings by columns or caissons;

"Drillship" means a ship-shaped MODU;

**"Dynamic positioning (DP)"** means the capability of a unit to automatically maintain its position and heading (fixed location or predetermined track) by using its own propulsion units;

**"Equivalence"** means an arrangement which provides the same general level of safety or generally fulfills the intent of a convention requirement without meeting all criteria for full compliance. Such arrangements can be accomplished, either independently or in combination with, alternative equipment, additional procedures/precautions, operational restrictions, etc.;

**"Exemption"** means a permanent or conditional release from compliance with a convention requirement due to the existence of specific circumstances as sanctioned by the provisions of that convention;

**"Existing unit"** means any MOU built prior to 31 December 1981 which, on the basis of conformity with these MOU Standards, is issued a National MOU Document of Compliance;

"International voyage" means a voyage outside the territorial waters of the RMI;

**"MODU"** means a unit capable of engaging in drilling operations for the exploration or exploitation of resources beneath the seabed such as liquid or gaseous hydrocarbons, sulphur, or salt;

**"MOU" or "unit"** means a vessel capable of engaging in operations in support of the exploration or exploitation of resources beneath the seabed such as liquid or gaseous hydrocarbons, sulphur, or salt. The term includes: floating units for drilling, production, storage, accommodation, maintenance and workover, et.al.;

"National MOU Document of Compliance (NDOC)" means a certificate issued by the Administrator, or RO, to an MOU built prior to 31 December 1981 that meets the requirements of these MOU Standards;

**"Non-self-propelled unit"** means a unit without propulsion or a unit with machinery that is utilized only for maintaining position, short field moves, or to provide assistance while being towed to, between or from sites. A unit that is constructed and classed as a self-propelled unit may be considered as a non-self-propelled unit for purposes of these MOU Standards if the propulsion machinery is only used for the purposes noted above and the operator of the unit makes a written request to the Administrator for non-self-propelled status;

**"On location"** means a unit is positioned at a particular geographic location, whether afloat or supported on the seabed, for the purpose of conducting operations, including drilling and production activities or support for those activities. If afloat, the unit may be moored or dynamically positioned;

**"Person-in-charge (PIC)"** means the person on each unit to whom all personnel on board are responsible during an emergency as designated, in writing and by title, by the owner or operator of the unit or the agent of either of them;

**"Recognized Organization (RO)"** means a Classification Society that has been authorized by written agreement with the Administrator to act on its behalf to conduct examinations, perform statutory surveys, determine tonnage and issue relevant national and international certificates;

"Self-elevating unit" means a unit with moveable legs capable of raising its hull above the surface of the sea and lowering it back into the sea;

"Self-propelled unit" means a unit with machinery that is used to propel the unit unassisted at sea;

**"Short field move"** means the repositioning of a unit, up to 20 miles in distance or eight hours in duration, under the command of an International Convention on Standards of Training, Certification and Watchkeeping (STCW Convention) licensed Master or Mate;

**"Underway"** means, for the sole purpose of application of these MOU Standards, a condition wherein a unit is moving, by force of its own propulsion or assisted by other vessel(s), from one geographical location to another;

**"Surface unit"** means a unit with a ship, or barge, type displacement hull of single or multiple hull construction intended for operation in the floating condition;

"**Transit Voyage**" means the repositioning of a unit from one location to another, <u>other</u> than a short field move; and

**"Voyages or operations in warm climates"** means voyages completely within the zone between 30° North and 30° South latitudes.

# 3.0 GENERAL / COMMON REQUIREMENTS – ALL MOUS

All new and existing units shall be issued IMO Code Certificates or NDOC. The MODU Code Safety Certificate or the NDOC replaces all of the SOLAS Safety Certificates that may have been previously issued, except for Safety Radio and, for self-propelled MOUs, the ISM Code Certificates. However, a unit which embarks upon an international voyage under its own power may be required, for the benefit of Port State Authorities concerned, to be provided with SOLAS Load Line, and/or International Oil Pollution Prevention (IOPP) Certificates. In such circumstances, contact the Administrator and/or the Classification Society.

## **3.1** Application of Other Codes, Standards and Conventions

## 3.1.1 International Safety Management (ISM) Code

The Administrator requires compliance with the ISM Code for all self-propelled units of 500 gross tons and over engaged on international voyages. Operators of units not subject to mandatory compliance are strongly encouraged to do so on a voluntary basis and may be issued statements of compliance if the units meet all international and RMI requirements.

## 3.1.2 Safety and Environmental Management System (SEMS)

An ISM Code compliant SEMS shall be established and maintained for all units. The SEMS shall address any coastal State "Safety Case" requirements being imposed.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The 2009 International Association of Drilling Contractors (IADC) Health, Safety and Environmental (HSE) Case Guidelines for MOUs is recommended for use toward the development of SEMS.

### 3.1.3 International Organization for Standardization (ISO) 31000– Risk Management

Consideration must be given by the owner/operator to applying the latest version of ISO 31000, *Risk management – Guidelines*, which provides best practice structure and generic guidance for the design, implementation, and maintenance of risk management processes throughout an organization.

- 3.1.4 Maritime Labour Convention, 2006 (MLC, 2006)
  - .1 The Administrator considers units engaged in exploration, exploitation, and/or processing of sea-bed mineral resources, including production, storage and offloading, maintenance, construction, or accommodation units, when on location for the purpose of conducting or supporting operations subject to the jurisdiction of a host coastal State, to be installations and not ships. Units flagged and certified in accordance with these MOU Standards and other relevant applicable national laws and regulations where the subject matter is dealt with differently are considered to substantially meet the requirements of MLC, 2006 and thus are not subject to certification under MLC, 2006 in these circumstances.
  - .2 These units also are deemed to be substantially compliant with MLC, 2006 when underway for purposes of relocation or drydocking and therefore are not subject to certification in these circumstances. Unit operators are encouraged, however, to voluntarily seek inspection and certification under the provisions of MLC, 2006, to the extent practicable, in accordance with procedures established by the Administrator.
- 3.1.5 International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)

The Administrator requires compliance with the IGC Code for units for which the primary service is the handling of hydrocarbon gases in a liquid form (LNG).

3.1.6 International Convention for the Control and Management of Ships' Ballast Water and Sediments ("BWM Convention")

The BMW Convention applies to all RMI-flagged vessels in accordance with Article 3 of the BMW Convention. The Administrator's requirements for its implementation are contained in RMI Marine Notice <u>2-014-1</u>, *Ballast Water Management*. Additional guidance is provided in RMI Marine Guideline <u>2-14-1</u>, *Ballast Water Management*.

Mobile Offshore Units (MOUs), including Mobile Offshore Drilling Units (MODUs), may not need ongoing certification because they operate exclusively within waters under the jurisdiction of a single Party. IMO Circular BWM.2/Circ.52/Rev.1, Guidance on entry or re-entry of ships into exclusive operation within waters under the jurisdiction of a single Party, should be applied in re-positioning and dry-docking voyages of these ship types.

### **3.2** Accommodations

3.2.1 All accommodations on board each unit built before 20 August 2013, including safety equipment; emergency signs; and the sanitary conditions in the galley, quarters, and work areas shall meet or exceed, as reasonable and practicable, those specified in the International Labour Organization (ILO) Conventions 92 and 133.

- 3.2.2 For any unit built on or after 20 August 2013, accommodations for personnel working or living on board, or both, shall be safe, decent, and in accordance with <u>MLC, 2006</u>, Title 3, *Accommodation, Recreational Facilities, Food and Catering.*
- 3.2.3 Berths
  - .1 Sleeping Rooms

In applying MLC, 2006, Title 3, Accommodation, Recreational Facilities, Food and Catering to MOUs, the Administrator considers the allowance for multiple-berth sleeping rooms in Standard A3.1.9(a) to be appropriate for most MOUs. A single room with two berths, each assigned to one crewmember on an opposite shift to the other, is acceptable. A limited number of rooms with up to four berths may be allowed to accommodate persons on the unit for short durations (surveyors, technicians, visitors, etc.) All remaining conditions specified in Standard A3.1.9, including minimum area, shall be met in all sleeping rooms.

.2 Hospital

When applying the Administrator's requirements for hospital facilities under RMI Marine Notice 7-044-1 to MOUs:

- a. the phrase "members of the crew or special personnel" refers to the total of all persons on board the unit when in full operation and is typically equivalent to the total number of sleeping berths; and
- b. hospital berth numbers shall be interpreted as follows:

Maximum Persons*	1-14	15-64	65-114	115-164	165-214	215→
Beds	1	2	3	4	5	6 (max)

\* Number of persons for whom lifesaving is provided (as specified on the MODU Certificate)

c. requests for exemptions from these standards must be made to the Administrator. Generally, vessels engaged in coastal trade and capable of reaching qualified medical care and medical facilities within eight hours and vessels or offshore installations capable of providing medical evacuation by helicopter may be exempted from the requirement for a separate hospital accommodation. However, in all cases, a suitable hospital treatment facility with at least a single berth shall be provided.

### 3.3 Manning

- 3.3.1 Minimum Safe Manning Certificate (MSMC)
  - .1 Each unit shall be issued a MSMC by the Administrator to ensure that the unit's proposed complement contains the number and grades/capacities of personnel to fulfill the tasks, duties, and responsibilities required for the safe operation of the unit, for protection of the marine environment, and for dealing with emergency situations. The intent is to ensure the Master, officers, and other crewmembers are not required to work more hours than is safe in relation to the performance of their duties and the safety of the unit and that there is compliance with the requirements for rest hours in accordance with RMI law and regulations.

- .2 In all instances, sufficient personnel shall be on board to cover all watchkeeping requirements of the unit. There shall be sufficient qualified persons on board to deal with peak workload conditions; for instance, dynamic positioning, mooring or unmooring, anchor handling, receiving stores or materials, or performing industrial operations. For MOUs on location, the minimum number of required personnel may be subject to increase in order to comply with local coastal State requirements.
- .3 A Master, who holds or carries an Offshore Installation Manager (OIM) endorsement, may fulfill both the Master and OIM positions, as required on the MSMC.
- .4 With respect to manning levels during towing: in all cases, vessel operators shall ensure there are sufficient qualified personnel on board the vessel to safely handle all expected operations in addition to watchstanding duties. These operations include, but are not limited to: mooring or unmooring, enclosed space entry, and industrial operations, to the extent such seafarers are involved in such activities.<sup>2</sup>
- 3.3.2 Chain of Command
  - .1 PIC
    - a. The operating manual shall include a chain of command with general responsibilities during normal operations. The PIC on each unit to whom all personnel on board are responsible in an emergency shall be clearly defined. This person shall be designated by title by the owner or operator of the unit or the agent of either of them. Depending on the type of unit and command structure, the designated PIC may be the Master, OIM, or Barge Supervisor.
    - b. The PIC shall be well acquainted with the characteristics, capabilities, and limitations of the unit. This person shall be fully cognizant of their responsibilities for emergency organization and action, for conducting emergency drills and training, and for keeping records of such drills.
  - .2 Master/OIM Relationship
    - a. The OIM's duties (including his or her second in command) shall be clearly defined in the unit's Well Safety Case document, and the Master's duties (including their second in command) shall be defined in the Safety Management System (SMS) Emergency Procedures. The interfaces between these two documents (the Well Safety Case and SMS) shall be clearly defined in a bridging document with responsibilities for all operations, particularly emergency scenarios, prescribed in detail. The bridging document shall be signed, and copies held, by all parties noted in this subsection.
    - b. Units underway or on location, but not connected to the sea floor by anchors, shall be under the command of a Master and shall maintain continuous navigational watches under the supervision of STW Certified Mates required on the MSMC.

<sup>&</sup>lt;sup>2</sup> Note that the manning level specified on the MSMC does <u>not</u> imply that a vessel may not be towed, or where appropriate for safety reasons, moored or anchored in an unmanned condition.

### 3.3.3 Watches

- .1 The Master, OIM, and Chief Engineer shall not stand a regular watch.
- .2 A three-watch system is to be adopted for both navigational and engine room watches (except in units certified for unattended machinery operations). However, the Administrator may accept a 12-hour, two-watch system, as is customary for units to provide continuity with industrial operations, provided the requirements for rest hours are met.
- .3 The Administrator recognizes reasonable routine variances from these limits may be necessary to accommodate watch handover, safety meetings, safety drills, and mid-tour watch rotations.
- 3.3.4 Shipping Articles / Articles of Agreement

See RMI Marine Notice 7-046-1.

### **3.4 Equipment and Machinery**

3.4.1 Unattended Machinery Operations

On units certified for unattended machinery operations, a sufficient number of qualified personnel must be carried to provide manual control of machinery in an emergency and to enable starting and operation of machinery necessary to provide vital services.

#### 3.5 Safety of Navigation

3.5.1 General Exemption

The general exemption referred to in SOLAS Regulation V/3.1 applies to non-self-propelled units. When these units are engaged in short field moves, the Master or mate responsible for the move shall ensure that appropriate bridge management and operational procedures are followed.

3.5.2 Bridge Navigation Watch Alarm Systems (BNWAS)

Each self-propelled unit shall be fitted with a BNWAS in accordance with SOLAS Chapter V. For self-propelled units, other than drillships, that typically make transit voyages under tow or tow-assisted, the Administrator will consider requests for exemption from fitting a BNWAS. In the case of such exemption with the unit making an unassisted transit, the navigation watch shall, at all times, consist of not less than two persons, one of whom shall be a qualified navigation officer (mate).

3.5.3 Voyage Data Recorder (VDR)

Each self-propelled unit shall be fitted with a VDR or Simplified Voyage Data Recorder (S-VDR) in accordance with SOLAS Chapter V. All units which are dynamically positioned shall be fitted with a VDR or S-VDR.

### 3.5.4 Electronic Chart Display Information System (ECDIS)

SOLAS V/19, Regulation 2, requires each self-propelled unit to be fitted with an ECDIS. In lieu of fitting an ECDIS, units equipped with propulsion capability that only make transit voyages under tow or tow-assisted may maintain on board a set of up-to-date charts and navigation information for the intended operating area as an equivalent arrangement under SOLAS 1/5.

### 3.5.5 Units Under Tow

- .1 Wet Tow (self-elevating units)
  - a. Self-elevating units may be manned when under tow if the bow height and reserve buoyancy requirements of regulations 39(1), 39(2) and 39(5) of the 1988 Load Lines Protocol, as amended, are met. Recognizing that operational constraints may create conditions which may not always allow these requirements to be met, particularly for short field moves, having regard to the occasional nature of such voyages on predetermined routes and to prevailing weather conditions, these short field moves may be undertaken with personnel on board. If the bow height and reserve buoyancy requirements cannot be met for transit tow, the tow must be made unmanned or the crew reduced to the minimum necessary to conduct the tow safely.
  - b. Any exemption from the above bow height requirements shall be conditional on explicit parameters under which a manned tow may be made. These parameters shall establish a level of safety equivalent to that achieved by the above requirements.
- .2 Dry Tow (all units)

Any unit being relocated via transport on a heavy-lift or similar vessel is subject to the requirements and any restrictions that apply to the transporting vessel.

### **3.6 Emergency Preparedness**

3.6.1 Combined Operations

Where units are in close proximity to other units or installations, emergency plans and preparations are to be provided that take into account the effects of each unit on the other. A bridging document shall be prepared covering identification of combined operation hazards and means in place to prevent, detect, control, and mitigate the effects.

### 3.6.2 Boat Drills

The Administrator recognizes the difficulty and hazards inherent in launching lifeboats from offshore units. Nonetheless, regular drills are essential for crew emergency preparedness and, therefore, shall still be conducted, as required, to the degree that they may safely be carried out. Where weather or sea conditions are not compatible with the safe lowering into the water, exercising, and retrieval of the lifeboats, as determined by the PIC of the unit, a log entry shall be made to that effect and that operation performed at the next safe opportunity. In accordance with the 2009 MODU Code, section 14.13.4.3, the Administrator does accept alternative means of achieving the objectives of the requirement. See RMI Marine Notice <u>7-041-7</u>, *Alternative Methods for Lifeboat Drills on Mobile Offshore Units (MOU)s*.

#### 3.6.3 Rescue Boat

- .1 Due to the limitations of maneuverability, typical visibility, and access of a lifeboat installed on an MOU being detrimental to its performance as a rescue boat, all new units shall be equipped with a dedicated rescue boat complying with the requirements of the IMO Life-Saving Appliance (LSA) Code.
- .2 As far as is reasonably practicable, dedicated rescue boats shall be launched each month with the assigned crew aboard and maneuvered in the water. In all cases these provisions shall be complied with at least once every three months during a man overboard drill to simulate the recovery of a person from the water.

#### 3.6.4 Muster

Each emergency preparedness drill shall include the taking of a muster and training shall emphasize the importance of completing an accurate muster as quickly as possible during an actual emergency. Drill scenarios should address difficulties, including worst-case conditions, in the accounting of personnel. The results should then be used in consideration of developing alternate ways of facilitating muster and accounting of personnel during egress in an emergency.

3.6.5 Enclosed Space Entry and Rescue Drills

Crew members with enclosed space entry or rescue responsibilities shall participate in an enclosed space entry and rescue drill to be held on board the unit at least once every two months.

3.6.6 Person Overboard Drills

Each unit shall conduct a drill or training for person overboard procedures at intervals of not more than three months.

3.6.7 Davit-launched Life Rafts

The preparation and launching of all davit-launched life rafts must be readily accomplished without the use of tools or equipment not stored at the launching location.

- 3.6.8 Davit-launched Liferaft Training and Drills
  - .1 All units installed with davit-launched liferafts shall lower a raft at least once every three months as part of an abandon unit drill.
  - .2 During drills, emphasis must be placed on ensuring all personnel's awareness of relevant arrangements and the crew's familiarity with:
    - a. handling all necessary lashings, painters and relevant tools;
    - b. connecting the liferaft to the davit;
    - c. swinging out the davit; and

- d. lowering the liferaft to the point where it would be inflated in an emergency.<sup>3</sup>
- .3 A life raft's container must be checked after a training exercise to ensure that its integrity remains intact. Unscheduled servicing may be required where the container has been compromised.

# 3.6.9 Lifeboat Capacity

- .1 The carrying capacity of current type-approved lifeboats is the maximum number of persons based on an assumed average weight of 82.5 kilograms (kg) (181.5 pounds (lbs)) and 75.0 kg (165 lbs) for earlier approved lifeboat models. These values have been shown to not accurately reflect the average size of today's offshore worker and should only be used as a baseline for evaluating the actual capacity.<sup>4</sup>
- .2 All unit operators should evaluate their lifeboats and develop procedures to account for the possibility of personnel on a stretcher or injured persons needing to lie down during unit evacuation.
- .3 Owners, operators, Masters, OIMs, and PICs should be cognizant of lifeboat capacity limitations and make appropriate changes to number of persons carried on the unit and/or lifeboat assignments.

# 3.6.10 Emergency Escape Breathing Device (EEBD)

- .1 One EEBD shall be provided for each watchstander in the engine control room, if located within the machinery space. Not less than one EEBD shall be provided.
- .2 A minimum of two EEBDs shall be located on each level of the machinery space. If a machinery space contains an enclosed primary escape trunk having a door at each level, only one EEBD need be located on each level.
- 3.6.11 Drill Floor and Moon Pool Deluge

The Administrator strongly recommends that all operators of drilling and production units consider installation of fixed water spray systems for the protection of critical drill floor equipment, structural components, and intervening fire barriers between industrial and non-industrial areas.

3.6.12 Emergency Disconnect - MODUs

The Administrator requires that all operators of MODUs review and amend, as appropriate, emergency procedures for activating the emergency disconnect sequence on each unit in its fleet equipped with these capabilities. Procedures shall identify the person, by title, who is authorized to activate or order activation of the sequence and contain clear but flexible guidelines for when emergency disconnect should be activated. Crewmembers standing watch in the control locations

<sup>&</sup>lt;sup>3</sup> There is no requirement to inflate the raft. If a raft is inflated during a drill or exercise, it may be a dedicated training liferaft. A dedicated training liferaft or device should be of a different color than the installed liferaft, but of a similar size, shape, and mass. It should be prominently marked, "Training only, not for use in emergency".

<sup>&</sup>lt;sup>4</sup> While not required under the LSA Code, the Administrator recommends to unit owners and operators that an assumed average weight of 95 kg (210 lbs) be applied to determine actual lifeboat carrying capacity.

and those whose emergency duties are at the control locations, shall be trained and practiced in these procedures. Drills shall be conducted at least weekly and give particular regard to lines of authority and conditions under which the sequence should be activated.

3.6.13 Portable Fire extinguishers - Spares

See RMI Marine Notice 2-011-14 for requirements on spare charges, additional fire extinguishers, and refilling of extinguishers.

### 3.7 Diving Systems

Diving Systems, if fitted, are to comply with and be certified to the current revision of the IMO Code of Safety for Diving Systems or equivalent.

## **3.8 Dynamic Positioning Systems (DP)**

- 3.8.1 Where position keeping is achieved by means of a DP system, this system shall be classified by the Classification Society for the unit and the appropriate notation assigned.
- 3.8.2 The Administrator has adopted the standards detailed in IMO Circular MSC.1/Circ.1580, *Guidelines for Vessels and Units with Dynamic Positioning Systems*, for RMI-flagged units constructed on or after 9 June 2017. A Dynamic Positioning Verification Acceptance Document (DPVAD) will be issued by the Recognized Organization to a DP vessel after satisfying compliance with these Guidelines.
- 3.8.3 The Administrator has adopted and continues to apply the standards detailed in IMO Circular MSC/Circ.645, *Guidelines for Vessels with Dynamic Positioning Systems*, to RMI-flagged units constructed before 9 June 2017. The Administrator does not require such units to hold a Flag State Verification and Acceptance Document (FSVAD) as the classification society DP classification notation sufficiently establishes compliance with the Circular. The classification societies are authorized to issue a FSVAD, if requested by the unit owner or operator, based on satisfying the class requirements for the DP notation.
- 3.8.4 The Operational Guidelines presented in Section 4 of the IMO Circular <u>MSC.1/Circ.1580</u>, shall be applied, to the degree practical, to all dynamically positioned units, regardless of build date.

## **3.9 Radio Communications**

3.9.1 Ship Radio Station License

Each unit shall have a Radio Station License issued by the Administrator.

- 3.9.2 Global Maritime Distress Safety System (GMDSS) Equipped Units
  - .1 For units without a radio maintainer on board, at least two deck officers are required to hold the GMDSS-General Operator Certificate, one of which shall be designated as having primary responsibility for radio communications during distress incidents.

The duplication of onboard equipment and shore-based maintenance shall be employed by the unit owner/operator.

.2 For units with a dedicated radio maintainer, such person must hold either a GMDSS-1<sup>st</sup> Class or GMDSS-2<sup>nd</sup> Class Radio Electronic Operator and Maintainer Certificate and shall be designated as having primary responsibility for radio communications during distress incidents.

Either the duplication of on-board equipment or shore-based maintenance shall be employed by the vessel owner/operator.

.3 As an alternative to any requirements specific to the applicable MODU Code, units operating in coastal waters are permitted to comply with the GMDSS requirements of the coastal State. Units that operate exclusively in areas where GMDSS is not available are not required to be fitted with a GMDSS installation.

### **3.10** Helicopter Facilities

All units are typically certified for service worldwide. However, coastal State civil aviation authorities may have specific requirements for helicopter operations within their own jurisdiction (e.g. color of perimeter lights) that may not be consistent with the MODU Codes but provide equivalent standards more familiar to the local aviators. Specifically, the Administrator considers CAP 437, *Offshore Helicopter Landing Areas - Guidance on Standards*, to be an equivalent standard to the corresponding requirements of the MODU Codes.

- 3.10.1 International Chamber of Shipping (ICS) Guidelines
  - .1 The Administrator has accepted as an example of best practice, the ICS *Guide to Ship Helicopter Operations*, 4<sup>th</sup> Edition, as it is the most up-to-date guide promoting standardized procedures for ship helicopter operations worldwide. The Guide is published by:

Marisec Publications 12 Carthusian Street London EC1M 6EZ Tel: +44 20 7417 8844 Fax: +44 20 7417 8877 Email: <u>publications@marisec.org</u> Website: <u>www.marisec.org</u>

.2 The owner/operator or PIC of a unit intending to conduct any kind of helicopter operation, including winching, landing, and marine pilot transfers, shall provide onboard arrangements, equipment, training, and drills which are at least as effective as those specified in the latest edition of the ICS *Guide to Ship Helicopter Operations*.

### 3.10.2 SMS

Units that conduct helicopter operations shall have within their SMS, all relevant helicopter operation procedures, emergency procedures, drills, training, and equipment lists for conducting these operations.

3.10.3 Communication

Before a helicopter operation is agreed, it is essential that the unit's PIC ensures that all necessary information concerning a unit's helicopter facilities are provided to the helicopter operator and that receipt is acknowledged.

- 3.10.4 Strength of Helicopter Landing Area
  - .1 The helicopter landing area shall physically be capable of withstanding the forces of a helicopter landing on it. Documentary evidence regarding deck strength shall be available on board. This information must include the maximum weight (in metric tonnes) that can be landed on the area that is to be used for helicopter landing. This information may be provided by:
    - a. the Classification Society that conducts the unit's surveys;
    - b. shipbuilder; or
    - c. a competent authority.

## 3.11 Lay-Up and Reactivation

- 3.11.1 When a decision has been made to lay-up a unit, preparations and the course of action shall be developed in consultation with the Classification Society of the unit, the relevant underwriters involved, and appropriate local port authorities.
- 3.11.2 The Classification Society shall determine the impact of lay-up on the Class and Statutory Survey status including requirements for maintaining Class and assignment of special Class notation if special survey due dates are exceeded. Owners shall avail themselves of the relevant Classification Society established guidance documents and/or services to assist with preparations for lay-up and establishment of procedures for maintenance of the unit for the duration of the lay-up.
- 3.11.3 Manning levels shall be commensurate with the intended operations of the unit and account for the unit's safety and security and any persons intended to be onboard as well as applicable port State requirements.
- 3.11.4 Once the required consultations have been concluded, application shall be made to the Administrator for registration in laid-up status, specifying the date of withdrawal from service, proposed manning, measures to ensure the maintenance of integrity of the unit, and the location of the unit's lay-up site.
- 3.11.5 At reactivation, the scope of any required surveys must take into consideration:
  - .1 the age of the unit and its condition on entering lay-up;

- .2 the point within the survey cycle the unit entered lay-up;
- .3 the preservation measures taken to prepare the unit for lay-up;
- .4 the measures taken during lay-up to maintain the integrity of the unit;
- .5 the time in lay-up; and
- .6 the initial survey findings at reactivation.

See the Administrator's guidance on the lay-up and reactivation of vessels as contained in RMI Marine Guideline <u>1-11-1</u>, *Lay-Up of Vessels*.

### 3.12 Classification

### 3.12.1 ROs

All units are required to be classed by a Classification Society which is recognized by the Administrator as being in full compliance with IMO Assembly Resolution <u>A.739(18)</u> and to the RO Code at such time as it enters into force.

### 3.12.2 Surveys

Each unit shall be initially and periodically surveyed for compliance with the provisions of the MODU Code under which it is certified. The survey schedule for each unit, irrespective of build date, shall, without exception, be as specified in §1.6 of the 2009 MODU Code.

### 3.12.3 Drydocking

- .1 The Administrator may allow underwater inspections in lieu of a survey in dry-dock provided such an inspection is equivalent to a dry-dock survey and the vessel qualifies.
- .2 The Administrator must grant specific authorization prior to the survey. An underwater inspection plan shall have been submitted and approved in accordance with the requirements of the unit's Classification Society.
- .3 To qualify for an underwater inspection in lieu of survey in dry-dock, the vessel must:
  - a. not have a history of major structural failure or significant damage to underwater parts or appendages since the last UWILD or dry-docking;
  - b. not have experienced bottom contact since the last UWILD or dry-docking excluding:
    - i. normal bottom contact (e.g. spud cans) for selfelevating units;
    - ii. bottom contact (e.g. during dry-tow or lay-up) for column stabilized units. In such cases, special attention must be directed to the areas that have experienced contact.
  - c. be located where facilities, water quality, and protection from the elements enable the UWILD to be properly conducted, providing a level of inspection considered to be equivalent to a dry-dock survey.

### 3.12.4 Lightweight Surveys

- .1 Each unit shall maintain a record of all changes (alterations log) to machinery, structure, outfitting, and equipment that will affect the light ship data. These are to be taken into account in daily operations.
- .2 All column-stabilized units, regardless of build date, shall meet the lightweight survey criteria specified in the 2009 MODU Code, §3.1.5.

### 3.13 RMI Safety Inspections

3.13.1 Pre-registration Inspections

Any unit being offered for registration in the RMI flag may be subject to a pre-registration inspection, as required, for a waiver of the age limitation to registration or as deemed necessary by the Administrator or an official who is authorized to act for and on behalf of the Administrator to adequately assess the condition and acceptability of the unit prior to proceeding with the registration process. When required or deemed necessary, it shall be done with the cooperation of the owner. The direct costs of the inspection shall be the responsibility of the registering owner or operator and shall be invoiced after the inspection.

#### 3.13.2 Initial Inspections

- .1 All units shall be required to undergo an initial safety inspection:
  - a. within 90 days of registration;
  - b. within 90 days of re-registration whereupon a change of management has taken place;
  - c. after any substantial structural alteration; or
  - d. prior to resuming service at the end of an extended lay-up period (cold-stacked).

### 3.13.3 Annual Inspections

All units are subject to an RMI Annual Safety Inspection (ASI) to be performed within the window of 45 days before and 45 days after the anniversary date of the initial inspection. The inspections are to be carried out by an authorized RMI Nautical Inspector, unless, under exceptional circumstances, other arrangements are authorized by the Administrator (see RMI Marine Notice <u>5-034-2</u>).

### 3.13.4 Periodic Inspections

The Administrator, or an official who is authorized to act for and on behalf of the Administrator, when deemed appropriate, may require units subject to corrective action to undergo periodic inspection at assigned intervals of less than one year.

### 3.13.5 Special Inspections

The Administrator, or an official who is authorized to act for and on behalf of the Administrator, in addition to the above inspections, may require a unit to undergo a special or unscheduled safety inspection at any time, sometimes without advance notice.

## 3.14 Exemptions, Equivalencies, and Alternative Arrangements

- 3.14.1 Exemption Certificate
  - .1 An Exemption Certificate is linked to, and shall be retained with, its associated statutory certificate. Such Exemption Certificates are issued by the RO issuing the statutory certificate under specific authorization from the Administrator in accordance with the applicable convention. See <u>RMI Technical Circular-4</u>, as amended.
  - .2 Authorization for issuance of an Exemption Certificate is considered by the Administrator on a case-by-case basis. Such authorization shall be based on the level of equivalency to the intent of the requirement being exempted and a recommendation from the RO.
- 3.14.2 Requests for Exemptions, Equivalencies, or Alternative Arrangements

In all cases, requests for exemptions, equivalencies, and alternative arrangements, unless specifically addressed by published guidance from the Administrator, must be communicated to the Administrator for consideration and formal approval. See RMI Technical Circular-4, as amended.

## 4.0 REQUIREMENTS FOR ISSUANCE OF A 2009 MODU CODE SAFETY CERTIFICATE

### 4.1 General

Units constructed on or after 1 January 2012 are required to meet these MOU Standards in order to be issued an international 2009 MODU or MOU Safety Certificate (2009 MODU Code Certificate). Units constructed prior to 1 January 2012 and found to be in full compliance with the 2009 requirements, may be issued a 2009 MODU Code Certificate upon request of the unit owner.

### 4.2 Surveys and Certification

The complete survey of the hull to meet the requirements of the Hull Special Survey, may be carried out on the continuous survey basis consistent with the Classification Society's requirements for Continuous Survey. (2009 MODU Code, §1.6.4)

## 4.3 Construction, Strength and Materials

In general, the materials, construction, strength, stability, and subdivision of a unit shall meet the Classification Society standards applicable to the specific type of unit (surface, self-elevating, or column stabilized). These requirements shall be equivalent to, or exceed, those specified in the International Association of Classification Societies (IACS) *Requirements Concerning Mobile Offshore Drilling Units* (Requirements D3 through D7). (2009 MODU Code, Chapter 2)

### 4.4 Subdivision, Stability, and Freeboard

- 4.4.1 Depending upon vessel arrangement and operations, the Administrator may consider a reduction in the vertical extent of damage if an acceptable level of safety can be demonstrated. (2009 MODU Code, §3.5.10.2)
- 4.4.2 Doors placed at or below the deepest load line draft in column-stabilized and surface units, which are used, shall be remotely controlled from the central ballast control station and operable locally from each side. Open/shut indicators shall be provided at the control station. (2009 MODU Code, §3.6.5.2)

## 4.5 Machinery Installations

- 4.5.1 Equipment which is constructed, surveyed, and tested in accordance with the requirements of a Classification Society recognized by the Administrator is considered acceptable. Recognized offshore drilling industry standards or codes that provide at least an equivalent level of safety may be accepted by the Administrator. (2009 MODU Code, §4.1.2)
- 4.5.2 Machinery which is essential to the operation of the unit, other than industrial related equipment, shall meet the applicable Classification Society standards. These requirements shall be equivalent to, or exceed, those specified in the IACS *Requirements Concerning Mobile Offshore Drilling Units* (Requirement D9). (2009 MODU Code, §4.1.3)

### 4.6 Electrical Installations

- 4.6.1 Unless all referenced provisions in §5.4.5 of the 2009 MODU Code have been met, every unit shall be provided with a self-contained emergency source of electrical power sufficient to supply the loads outlined in §5.4.6. of the 2009 MODU Code. (2009 MODU Code, §5.4.5)
- 4.6.2 Fixed internal communication systems are required in all spaces that are normally manned during an emergency. (2009 MODU Code, §5.7.5)

# 4.7 Equipment in Hazardous Areas

- 4.7.1 The Emergency Disconnect System (EDS) shall be operable after an emergency shutdown. (2009 *MODU Code*, §6.5.5.2)
- 4.7.2 Non-armored cables may be permitted in Zone 1 applications provided the level of safety is equivalent to that for an armored cable installation. (2009 MODU Code, §6.6.8.4)

## 4.8 Equipment on Self-Propelled Units

- 4.8.1 Chapter 7 of the 2009 MODU Code applies to units designed to undertake self-propelled passages without external assistance. The Administrator also considers Chapter 7 to apply to units fitted with means for positioning other than attachment to the seabed or other structures. (2009 MODU Code, §7.1.1)
- 4.8.2 A suitable internal communication system between the engine control room or maneuvering platform and the engineers' accommodations may be substituted for the alarm. (2009 MODU Code, §7.8)

### 4.9 Periodically Unattended Machinery

- 4.9.1 Units with machinery installations, approved by an authorized Classification Society for the assignment of the "Periodically Unattended Machinery Spaces" notation, shall be eligible for a reduction in the number of engineering personnel as appropriate. (2009 MODU Code, §8.2.5)
- 4.9.2 Only functions related to the safety of personnel and/or the operation of propulsion or other vital machinery systems are required to be alarmed. (2009 MODU Code, §8.7.1)
- 4.9.3 Possible dangers and complications that may result from a rapid and uncontrolled automatic shutdown of equipment should be avoided. Devices and arrangements that minimize the risk of serious damage, breakdown, or explosion in the event of a serious malfunction of the machinery or boilers should be employed. (2009 MODU Code, §8.9)

## 4.10 Fire Safety

- 4.10.1 In general, firefighting equipment and construction materials (fire boundaries, portable fire extinguishers, detection and alarm systems, firemen's outfits, etc.) shall meet or exceed the applicable requirements contained in Chapter II-2 of SOLAS. (2009 MODU Code, Chapter 9)
- 4.10.2 To the extent reasonable and practicable, serious consideration shall be given to the arrangement and location of the superstructure and/or deckhouse to protect personnel, escape routes, and survival craft from the radiant heat of a fire in the industrial operations area. (2009 MODU Code, \$9.4.5)
- 4.10.3 Fire-fighters' outfits shall be stowed on the open deck in suitable enclosures that are readily accessible (not locked) and clearly labeled. (2009 MODU Code, §9.13.3)

## 4.11 Life-saving

- 4.11.1 Units while on location and being served by a standby vessel, or when on location and located within 25 kilometers (km) (16 miles (mi)) of another manned platform, stationary floating unit/vessel, or from a harbor of safe refuge, are considered by the Administrator to be engaged on a voyage that will permit the survival craft food rations (LSA Code §4.4.8.12) and fishing tackle (LSA Code §4.4.8.26) to be dispensed with. (2009 MODU Code, §10.6.1.4)
- 4.11.2 A minimum of two immersion suits (where required) and two lifejackets shall be provided at locations where remotely located survival craft are stowed. (2009 MODU Code, §10.11.1)

### 4.12 Lifting Devices, Personnel and Pilot Transfer

- 4.12.1 The Administrator will accept certification intervals of five years accompanied by annual testing of the cranes onboard the unit. (2009 MODU Code, §12.1.6)
- 4.12.2 The safety device (giving a continuous indication of hook load and rated load for each radius) described in §12.1.8 of the 2009 MODU Code shall not be required if the crane operating manual contains restrictions which preclude lifting objects of unknown weight. If a safety device is installed, the operating manual shall contain adequate procedures for periodic testing of the device by the crane operator. (2009 MODU Code, §12.1.8)

4.12.3 Only operational and maintenance data needs to be contained in the crane operating manual aboard a unit. (2009 MODU Code, §12.1.10.1)

### 4.13 **Operations**

Regular drills are essential for crew emergency preparedness and therefore shall still be conducted, as required, to the degree that they may be safely carried out. In the event that weather or sea conditions are not compatible with the safe lowering into the water and/or exercising of the boats, as determined by the PIC of the unit, a log entry shall be made to that effect and that operation performed at the next safe opportunity. (2009 MODU Code, §14.12.1)

## 5.0 REQUIREMENTS FOR ISSUANCE OF A 1989 MODU CODE SAFETY CERTIFICATE

### 5.1 General

Units constructed on or after 1 May 1991 and before 1 January 2012 are required to meet these MOU Standards in order to be issued an international 1989 MODU or MOU Safety Certificate (1989 MODU Code Certificate). Units constructed prior to 1 May 1991 and found to be in full compliance with the 1989 requirements may be issued a 1989 MODU Code Certificate upon request of the unit owner.

### 5.2 Survey

The interval for periodical surveys is five years. (1989 MODU Code, §1.6.1.2)

### 5.3 Construction, Strength, Materials, Subdivision, Stability, and Load Line

- 5.3.1 In general, the materials, construction, strength, stability, and subdivision of a unit must meet the Classification Society standards applicable to the specific type of unit (surface, self-elevating, or column stabilized). These requirements shall be equivalent to, or exceed, those specified in the IACS *Requirements Concerning Mobile Offshore Drilling Units* (Requirements D3 through D7). (1989 MODU Code, Chapters 2 and 3)
- 5.3.2 Depending upon vessel arrangement and operations, the Administrator may consider a reduction in the vertical extent of damage if an acceptable level of safety can be demonstrated. (1989 MODU Code, §3.5.10.2)

### 5.4 Machinery Installations

- 5.4.1 Equipment which is constructed, surveyed, and tested in accordance with the requirements of a Classification Society recognized by the Administrator is considered acceptable. Recognized offshore drilling industry standards or codes which provide at least an equivalent level of safety may be accepted by the Administrator. (1989, MODU Code, §4.1.2)
- 5.4.2 Machinery which is essential to the operation of the unit, other than industrial related equipment, shall meet the applicable Classification Society standards. These requirements shall be equivalent to, or exceed, those specified in the IACS *Requirements Concerning Mobile Offshore Drilling Units* (Requirement D9). (1989 MODU Code §4.1.3)

### 5.5 Electrical Installations

- 5.5.1 Fixed internal communication systems shall be required in all spaces that are normally manned during an emergency. (1989 MODU Code, §5.6)
- 5.5.2 Unless all referenced provisions in §5.3.5 of the MODU Code have been met, every unit shall be provided with a self-contained emergency source of electrical power sufficient to supply the loads outlined in §5.3.6. of the 1989 MODU Code. (1989 MODU Code, §5.3.5)

### 5.6 Equipment in Hazardous Areas

Non-armored cables may be permitted in Zone 1 applications provided the level of safety is equivalent to that for an armored cable installation. (1989 MODU Code, §6.6.4)

### 5.7 Equipment on Self-Propelled Units

A suitable internal communication system between the engine control room or maneuvering platform and the engineers' accommodations may be substituted for the alarm. (1989 MODU Code, §7.8)

### 5.8 Periodically Unattended Machinery

- 5.8.1 Only functions related to the safety of personnel and/or the operation of propulsion or other vital machinery systems are required to be alarmed. (1989 MODU Code, §8.7.1)
- 5.8.2 Possible dangers and complications that may result from a rapid and uncontrolled automatic shutdown of equipment should be avoided. Devices and arrangements that minimize the risk of serious damage, breakdown, or explosion in the event of a serious malfunction of the machinery or boilers should be employed. (1989 MODU Code, §8.9)

### 5.9 Fire Safety

- 5.9.1 In general, firefighting equipment and construction materials (fire boundaries, portable fire extinguishers, detection and alarm systems, firemen's outfits, etc.) shall meet or exceed the applicable requirements contained in Chapter II-2 of SOLAS. (1989 MODU Code, Chapter 9)
- 5.9.2 To the extent reasonable and practicable, serious consideration will be given to the arrangement and location of the superstructure and/or deckhouse to protect personnel, escape routes, and survival craft from the radiant heat of a drill floor fire. (*1989 MODU Code*, *§9.3.5*)
- 5.9.3 Semi-portable firefighting systems and/or additional portable extinguishers may be accepted by the Administrator, on a case-by-case basis, as an alternative to a fixed firefighting system in continuously manned spaces. (1989 MODU Code, §9.5.1 and §9.5.2)
- 5.9.4 On units built before 01 October 1994, existing fixed Halon firefighting systems may be retained as long as they remain in serviceable condition. The RMI is signatory to the 1985 Vienna Convention and the 1987 Montreal Protocol which provide for the recycling of Halon and the establishment of Halon Banks. This should allow for replenishment of a system which was discharged to extinguish a fire and for recycling of Halon in the event that a system is decommissioned. See RMI Marine Notice 2-011-11, Use of Halogenated Hydrocarbons (Halons) and Other Ozone Depleting Substances. (1989 MODU Code, §9.5.1.1.2)

- 5.9.5 Firemen's outfits shall be stowed on the open deck in suitable enclosures that are readily accessible (not locked) and clearly labeled. (1989 MODU Code, §9.9.3)
- 5.9.6 A helideck foam fire extinguishing system will only be required on units equipped with helicopter fueling facilities. (1989 MODU Code, §9.11.2.2)

# 5.10 Life-saving Appliances and Equipment

- 5.10.1 Units while on location and being served by a standby vessel, or when on location and located within 25 km (16 mi) of another manned platform, stationary floating unit, or from a harbor of safe refuge, are considered by the Administrator to be engaged on a voyage that will permit the survival craft food rations (LSA Code §4.4.8.12) and fishing tackle (LSA Code §4.4.8.26) to be dispensed with. (1989 MODU Code, §10.5.1.4)
- 5.10.2 For units other than those operating in warm climates, an immersion suit shall be provided for every person on board the ship. Immersion suits and thermal protective aids are to be assigned by the Master.<sup>5</sup> (1989 MODU Code, §10.11)
- 5.10.3 Additional immersion suits shall be provided for each person on watch or at any normal work location that is remote from where immersion suits are normally stowed. For the purposes of this paragraph, a normal work location is a location where a crewmember regularly carries out normal work functions. (1989 MODU Code, §10.11)

# 5.11 Lifting Devices

- 5.11.1 The Administrator will accept certification intervals of five years accompanied by annual testing of the cranes onboard the unit. (1989 MODU Code, §12.1.6)
- 5.11.2 The safety device (giving a continuous indication of hook load and rated load for each radius) described in §12.1.8 of the 1989 MODU Code will not be required if the crane operating manual contains restrictions which preclude lifting objects of unknown weight. If a safety device is installed, the operating manual shall contain adequate procedures for periodic testing of the device by the crane operator. (1989 MODU Code, §12.1.8)
- 5.11.3 Only operational and maintenance data needs to be contained in the crane operating manual aboard a unit. (1989 MODU Code, §12.1.10.1)

# 6.0 REQUIREMENTS FOR ISSUANCE OF A 1979 MODU CODE SAFETY CERTIFICATE

## 6.1 General

Units constructed on or after 31 December 1981 and before 1 May 1991 are required to meet these MOU Standards in order to be issued an international 1979 MODU or MOU Safety Certificate (1979 MODU Code Certificate). Units constructed prior to 01 May and found to be in full compliance with the 1979 requirements may be issued a 1979 MODU Code Certificate upon request of the unit owner.

# 6.2 Survey

<sup>&</sup>lt;sup>5</sup> It is recommended that immersion suits be kept in staterooms along with life jackets.

The interval for periodical surveys is five years. (1979 MODU Code, § 1.6.1.2)

### 6.3 Construction, Strength, Materials, Subdivision, Stability, and Load Line

- 6.3.1 In general, the materials, construction, strength, stability, and subdivision of a unit shall meet the Classification Society standards applicable to the specific type of unit (surface, self-elevating, or column stabilized). These requirements shall be equivalent to, or exceed, those specified in the IACS *Requirements Concerning Mobile Offshore Drilling Units* (Requirements D3 through D7). (1979 MODU Code, Chapters 2 and 3)
- 6.3.2 Depending upon vessel arrangement and operations, the Administrator may consider a reduction in the vertical extent of damage if an acceptable level of safety can be demonstrated. (1979 *MODU Code*, §3.5.3.2)

### 6.4 Machinery Installations

- 6.4.1 Equipment which is constructed, surveyed, and tested in accordance with the requirements of a Classification Society recognized by the Administrator is considered acceptable. Recognized offshore drilling industry standards or codes which result in at least an equivalent level of safety may be accepted by the Administrator. (1979 MODU Code, §4.1.2)
- 6.4.2 Machinery which is essential to the operation of the vessel, other than industrial related equipment, shall meet the applicable Classification Society standards. These requirements should be equivalent to, or exceed, those specified in the IACS *Requirements Concerning Mobile Offshore Drilling Units* (Requirement D9). (1979 MODU Code, §4.1.3)

### 6.5 Electrical Installations

Fixed internal communication systems will be required in all spaces that are normally manned during an emergency. (1979 MODU Code, §5.6)

## 6.6 Equipment in Hazardous Areas

Non-armored cables may be permitted in Zone 1 applications provided the level of safety is equivalent to that for an armored cable installation. (1979 MODU Code, §6.6.4)

### 6.7 Engineers' Alarm

On all self-propelled units a suitable internal communication system between the engine control room or maneuvering platform and the engineers' accommodations may be substituted for the alarm. (1979 MODU Code, § 7.8)

## 6.8 Periodically Unattended Machinery Spaces

- 6.8.1 Only functions related to the safety of personnel and/or the operation of propulsion or other vital machinery systems are required to be alarmed. (1979 MODU Code, §8.6.1)
- 6.8.2 The possible dangers and complications that may result from a rapid and uncontrolled automatic shutdown of equipment should be avoided. Devices and arrangements that minimize the risk of serious damage, breakdown, or explosion in the event of a serious malfunction of the machinery or boilers should be employed. (1979 MODU Code, § 8.8)

### 6.9 Fire Safety

- 6.9.1 In general, firefighting equipment and construction materials (fire boundaries, portable fire extinguishers, detection and alarm systems, firemen's outfits, etc.) shall meet or exceed the applicable requirements contained in Chapter II-2 of SOLAS. (1979 MODU Code Chapter 9)
- 6.9.2 The Administrator considers the requirements of §9.2.13 of the 1979 MODU Code to be applicable to windows and side scuttles in boundaries which face the drill floor and are required to be of "A-60" construction. Other means of construction to maintain the required "A-60" integrity may be accepted as an alternative to steel covers or water-curtain protection. (1979 MODU Code §9.2.13)
- 6.9.3 To the extent reasonable and practicable, serious consideration shall be given to the arrangement and location of the superstructure and/or deckhouse to protect personnel, escape routes, and survival craft from the radiant heat of a drill floor fire. (1979 MODU Code §9.3.5)
- 6.9.4 Semi-portable firefighting systems and/or additional portable extinguishers may be accepted by the Administrator, on a case-by-case basis, as an alternative to a fixed firefighting system in continuously manned spaces. (1979 MODU Code §9.5.1 and §9.5.2)
- 6.9.5 On units built before 01 October 1994, existing fixed Halon firefighting systems may be retained as long as they remain in serviceable condition. The RMI is signatory to the 1985 Vienna Convention and the 1987 Montreal Protocol which provide for the recycling of Halon and the establishment of Halon Banks. This should allow for replenishment of a system which was discharged to extinguish a fire and for recycling of Halon in the event that a system is decommissioned. See RMI Marine Notice <u>2-011-11</u>, Use of Halogenated Hydrocarbons (Halons) and Other Ozone Depleting Substances. (1979 MODU Code §9.5.1.1.3)
- 6.9.6 The fire detection and alarm system installed in the accommodation and service spaces shall meet SOLAS requirements. As such, it may be activated by heat, smoke, flame, other products of combustion, or any combination of these factors. (1979 MODU Code §9.7.1)
- 6.9.7 Firemen's outfits shall be stowed on the open deck in suitable enclosures that are readily accessible (not locked) and clearly labeled. (1979 MODU Code §9.9.3)
- 6.9.8 A helideck foam fire extinguishing system will only be required on units equipped with helicopter fueling facilities. (1979 MODU Code, §9.11.2.2)

### 6.10 Life-saving Appliances and Equipment

- 6.10.1 Units while on location and being served by a standby vessel, or when on location and located within 25 kilometers (16 miles) of another manned platform, stationary floating unit, or from a harbor of safe refuge, are considered by the Administrator to be engaged on a voyage that will permit the survival craft food rations (LSA Code §4.4.8.12) and fishing tackle (LSA Code §4.4.8.26) to be dispensed with. (1979 MODU Code, §10.1.3)
- 6.10.2 In general, life-saving appliances and equipment (survival craft, rescue boats, personal lifesaving appliances, lifebuoys, distress signals, etc.) shall meet or exceed the applicable requirements contained in Chapter III of SOLAS and the LSA Code. (1979 MODU Code, *Chapter 10*)

- 6.10.3 For units other than those operating in warm climates, an immersion suit shall be provided for every person on board the ship. Immersion suits and thermal protective aids are to be assigned by the Master.<sup>6</sup> Additional immersion suits shall be provided for each person on watch or at any normal work location that is remote from where immersion suits are normally stowed. For the purposes of this paragraph, a normal work location is a location where a crewmember regularly carries out normal work functions.
- 6.10.4 The requirements for emergency procedures described in §14.9 through §14.14 of the 2009 MODU Code shall be met instead of those procedures described in §10.6 of the 1979 MODU Code. All drills and exercises shall be recorded in the official logbook aboard the unit as per §14.14.2 of the 2009 MODU Code. (1979 MODU Code, §10.6)
- 6.10.5 §10.6.4.2 of the 1979 MODU Code applies only to units fitted with a public address system. (1979 MODU Code, §10.6.4.2)

## 6.11 Lifting Devices

- 6.11.1 The Administrator will accept certification intervals of five years accompanied by annual testing of the cranes onboard a unit. (1979 MODU Code, §12.1.5)
- 6.11.2 The safety device (giving a continuous indication of hook load and rated load for each radius) described in §12.1.7 of the 1979 MODU Code will not be required if the crane operating manual contains restrictions which preclude lifting objects of unknown weight. If the safety device is installed, the operating manual shall contain adequate procedures for periodic testing of the device by the crane operator. (1979 MODU Code, §12.1.7)
- 6.11.3 Only operational and maintenance data needs to be contained in the crane operating manual aboard a unit. (1979 MODU Code, §12.1.9.1)

# 7.0 REQUIREMENTS FOR ISSUANCE OF AN NDOC

## 7.1 General

- 7.1.1 A unit that was constructed before 31 December 1981 is classified as an existing unit. Existing units which do not meet the requirements of the 1979, 1989, and 2009 MODU Codes shall comply with the RMI requirements specified herein and will be issued an NDOC in accordance with IMO Assembly Resolution <u>A.414(XI)</u>.
- 7.1.2 As with all other units, existing units shall maintain appropriate class status with a Classification Society recognized by the Administrator in accordance with the procedures contained in IMO Assembly Resolution <u>A.739(18)</u> or the RO Code upon its entry into force. Upon initial application for registration, the Classification Society shall survey the unit and review plans and calculations to determine the degree of compliance with the 1979 MODU Code (or subsequent Codes) and interpretations of the Administrator. If found to be in full compliance, an international MODU or MOU Safety Certificate may be issued upon request of the unit owner. The relevant statutory certificates and/or the document of compliance will be issued by the Classification Society on behalf of the Administrator upon satisfactory completion of the necessary technical reviews and surveys.

<sup>&</sup>lt;sup>6</sup> It is recommended that immersion suits be kept in staterooms along with life jackets.

- 7.1.3 If the unit does not fully comply with the 1979 MODU Code, and/or the RMI requirements contained within these MOU Standards, a listing of non-compliant items shall be compiled by the Classification Society for review by the Administrator. In general, a long-term history of safe and successful operation in the same or similar environment shall form the basis for the acceptance of construction, equipment, and arrangements which may not fully meet the 1979 MODU Code requirements. The Administrator will consider the existing construction, equipment, and arrangements on the basis of alternatives and equivalences provided that they do not hazard the unit, environment, and/or personnel aboard. Existing equipment may normally be retained as long as it remains serviceable and significant upgrading to the 1979 MODU Code requirements will not be required unless there is an alteration of a major nature to the unit. Minor repairs may be made to the original construction standard. Equipment or systems that are no longer serviceable shall be upgraded to the latest standard when replaced as long as the structure and arrangement of the unit will accommodate the new equipment or system.
- 7.1.4 The initial survey of the unit and any technical reviews performed by the Classification Society are to ensure that there are no structural defects or excessive deterioration of the hull, that equipment is available and suitable for its intended purpose, and that there are no fire/explosion hazards or other unsafe conditions which would require rectification.

### 7.2 Surveys

Surveys, including underwater examinations, are to be performed in accordance with \$1.6 of the 2009 MODU Code.

### 7.3 Subdivision, Stability, and Load Line

- 7.3.1 The existing level of subdivision will be accepted provided all watertight and weathertight boundaries, including closing devices, are maintained in serviceable condition and any operational limitations are satisfied at all times.
- 7.3.2 For unrestricted service, a unit shall meet the 70 knot offshore and 100 knot severe storm wind heel criteria specified in the 1979 MODU Code. Special consideration may be given to units designed to a lesser wind velocity; provided, the previous service was in an equal or more severe environment and/or if appropriate operational limitations are applied. Units operating in sheltered locations shall meet the 50 knot wind velocity criteria of the 1979 MODU Code.
- 7.3.3 All units required to meet the 1966 ILLC shall have a valid Load Line Certificate on board.

### 7.4 Machinery Installations

7.4.1 Machinery, including installed personnel protection and safety devices, shall be maintained and operated in a safe manner at all times. Engine exhausts piping and other high temperature components or equipment may become potential ignition sources and they shall be suitably insulated, isolated, or otherwise protected from contact by flammable liquids or vapors. Essential machinery shall be fitted with automatic devices which provide a controlled shutdown or slowdown of the machinery while minimizing the risk of serious damage, breakdown, fire, or explosion. On self-propelled units, the propulsion, steering, and navigation equipment should meet Chapter 7 of the 1979 MODU Code.

- 7.4.2 Essential propulsion and auxiliary equipment, including oil fired boilers and heating units, shall be periodically examined and tested as required by the Classification Society for maintenance of appropriate classification status and for validity of the NDOC. Industrial equipment is to be examined and tested in accordance with recognized offshore drilling unit standards or, alternatively, as required by the Classification Society.
- 7.4.3 Machinery and industrial equipment installed in hazardous locations shall be suitable for safe operation under anticipated environmental conditions. Any installed electronic control or monitoring devices shall be explosion proof or intrinsically safe, as applicable.

### 7.5 Electrical Installations

- 7.5.1 Electrical equipment, including motors, generators, cable, junction boxes, wire connections, lights, appliances, switches, switchboards, and other components shall be constructed to minimize electrical shock, fire, and explosion hazards. Electrical equipment installed in Zone 1 and Zone 2 locations shall be of suitable construction in accordance with §6.6.3 of the 1979 MODU Code. Existing equipment in Zone 1 or Zone 2 locations, which does not meet the 1979 MODU Code requirements, may be accepted if it can be shown that it does not produce personnel, fire, explosion, or other safety hazards.
- 7.5.2 The ability of the ventilation systems in battery rooms, paint and flammable liquid lockers, gas cylinder storage spaces, and other similar compartments to prevent concentrations of flammable or toxic vapors shall be verified. Only essential electrical equipment of appropriate construction shall be installed in these spaces.
- 7.5.3 The emergency electrical power source shall be capable of operating for at least 12 hours and shall supply the following equipment:
  - .1 Emergency lighting as specified in §5.3.2.1 of the 1979 MODU Code;
  - .2 Internal communications necessary during an emergency in accordance with §5.3.2.3.1 of the 1979 MODU Code (if suitable portable equipment is not readily available);
  - .3 Fire detection and alarm system in accordance with §5.3.2.3.2 of the 1979 MODU Code; and
  - .4 Fire pump in accordance with §5.3.2.4 of the 1979 MODU Code.

### 7.6 Fire Safety Equipment and Arrangements

- 7.6.1 Interior stairways penetrating a single deck shall be enclosed on at least one of the two levels served. Stacked stairways penetrating multiple decks may be accepted; provided, their enclosures maintain the integrity of each deck penetrated.
- 7.6.2 Accommodation or service spaces constructed of wood or other combustible material shall be fitted with a fire detection and alarm system having sensors in each compartment. The system may be activated by heat, smoke, flame, other products of combustion, or a combination of these factors. Newly installed systems shall meet SOLAS requirements. Existing systems shall be suitable for marine applications and meet the requirements of a recognized fire standard or underwriting agency.

- 7.6.3 The bulkheads and decks separating paint lockers and other high hazard storage spaces from accommodations and/or control stations shall be at least "A-60" steel fire boundaries or lined with steel if they are of wood or other combustible material construction.
- 7.6.4 Public spaces, staterooms and other sleeping quarters, and normally manned compartments are to be fitted with at least two means of escape which shall remain unobstructed at all times.
- 7.6.5 Each unit shall be fitted with at least two independently driven fire pumps located in separate compartments. Any suitable capacity pump with a sea suction may be designated as a fire pump as long as it cannot be connected to a system conveying oil or other flammable liquid.
- 7.6.6 The arrangement and capacity of the fire main system shall permit any accessible location aboard the unit to be serviced by two streams of water emanating from separate fire hoses which are not connected to the same hydrant. At least one of the two hoses specified above shall be a single length fire hose. A fire hose, nozzle, and associated equipment are to be installed at each hydrant.
- 7.6.7 Portable fire extinguishing equipment, fixed firefighting systems and their components, fireman's outfits, and other firefighting equipment shall, to the extent reasonable and practicable, meet or exceed the requirements of the 1979 MODU Code. Alternative equipment and arrangements may be considered if they provide an equivalent level of protection. All firefighting equipment and appliances are to remain in serviceable condition and ready for immediate use at all times.
- 7.6.8 "NO SMOKING" and/or "NO OPEN FLAME" signs and other applicable warnings are to be displayed in working and living spaces, as appropriate.
- 7.6.9 Existing firefighting equipment on helicopter decks may be retained as long as it is in serviceable condition and is considered effective. A helideck fixed firefighting system is required only when helicopter refueling capability is provided.

### 7.7 Life-saving Appliances

- 7.7.1 Davit launched survival craft, having an aggregate capacity to accommodate at least all persons permitted on board, shall be provided. These survival craft shall preferably be rigid, totally enclosed, motor propelled, and fire protected lifeboats. The Administrator may give special consideration to other types of davit launched survival craft on the basis of the nature and arrangement of installed life-saving equipment and the area of operation.
- 7.7.2 In addition to the davit launched survival craft, each unit shall be fitted with inflatable life rafts of an aggregate capacity to accommodate at least all persons permitted on board. Each life raft shall be equipped with a float free securing device which will automatically release the life raft when submerged.
- 7.7.3 Survival craft equipment, to the extent reasonable and practicable, shall meet SOLAS requirements.
- 7.7.4 A rescue boat shall be provided in accordance with §10.2 of the 1979 MODU Code.
- 7.7.5 A lifejacket meeting the requirements of §2.2.1 or §2.2.2 of the LSA Code shall be provided for every person on board the unit. In addition, a sufficient number of lifejackets shall be stowed in

suitable locations for persons who may be on duty in locations where their lifejackets are not readily accessible.

- 7.7.6 For units other those operating in warm climates, an immersion suit shall be provided for every person on board the ship. Immersion suits and thermal protective aids are to be assigned by the Master.<sup>7</sup> Additional immersion suits shall be provided for each person on watch or at any normal work location that is remote from where immersion suits are normally stowed. For the purposes of this paragraph, a normal work location is a location where a crewmember regularly carries out normal work functions.
- 7.7.7 At least eight lifebuoys are to be provided on each unit and stowed in accessible locations near debarkation points. Two of these lifebuoys are to have self-igniting lights. Another two are to be fitted with lifelines of a length at least equal to 1.5 times the distance from the working deck to the waterline.
- 7.7.8 The requirements for emergency procedures described in §14.9 through §14.14 of the 2009 MODU Code shall be met. All drills and exercises shall be recorded in the official logbook aboard the unit as per §14.14.2 of the 2009 MODU Code.

# 7.8 Radio Installations

While on location, the radio equipment installation shall meet or exceed the requirements of the coastal State in which the unit is operating. In the absence of coastal State regulations, radio equipment requirements will be established by the Administrator on the basis of operating area and other relevant parameters.

## 7.9 Lifting Devices

- 7.9.1 Initial and renewal surveys of lifting devices for the issuance of an NDOC shall include the examination and testing of the lifting gear. In addition, a Classification Society surveyor shall examine and witness the load testing of any lifting devices that has been repaired or altered.
- 7.9.2 A boom radius versus hook load chart, or similar operating aid, shall be available for use by the lifting device operator.

# 7.10 Operating Requirements

An Operating Manual complying with at least the 1979 MODU Code or the relevant MODU Code under which the MOU is certified shall be aboard the unit. The Operating Manual shall be approved by the Classification Society on behalf of the Administrator.

# 8.0 **REQUIREMENTS BASED ON SERVICE AND INDUSTRIAL OPERATIONS**

The MODU Codes were developed primarily to provide an appropriate basis for the certification of MODUs. Additionally, the MODU Codes may provide an appropriate basis for the certification of MOUs having a variety of industrial functions. This section provides, where necessary, additional requirements and clarifications based on the specific industrial function of the unit.

<sup>&</sup>lt;sup>7</sup> It is recommended that immersion suits be kept in staterooms along with life jackets.

## 8.1 Units Engaged in Drilling, Production and Processing of Hydrocarbons

- 8.1.1 The MODU Codes do not include requirements for the drilling, production and processing of liquid or gaseous hydrocarbons or other subsea resources or the procedures for their control. Such industrial operations are subject to regulation by the coastal State.
- 8.1.2 While these Standards do not specify equipment or systems for performing or controlling of drilling, production, and processing operations, they do include requirements for equipment and systems essential for the safety of the unit.<sup>8</sup>
- 8.1.3 For any unit under this section that includes equipment for the handling of LNG (e.g. FLNGs), reference should also be made to §8.3 below.

### 8.2 Units in Accommodation Services

- 8.2.1 Units where the primary service is to provide accommodation for offshore workers may be certified in accordance with the MODU Codes and these MOU Standards.
- 8.2.2 Life-saving Appliances
  - .1 Life-saving appliances shall in general be in accordance with the 2009 MODU Code.
  - .2 The Administrator may consider applying the life-saving arrangement and capacity requirements of the 2008 Special Purpose Ships (SPS) Code for units meeting intact and damage stability requirements of the SPS Code.
- 8.2.3 Fire Protection of Accommodation Spaces
  - .1 Requirements for the degree of structural fire protection will be based on the total number of persons on board and at least equivalent to the requirements in the SPS Code.
  - .2 Where exposed to 'open deck', all external boundaries of accommodation spaces shall be at least "A-60" insulated.
  - .3 There shall be no dead-end corridors.
- 8.2.4 Training

All persons shall be provided with familiarization and training in personal safety and emergency response. Such familiarization and training shall be completed within the first 12 hours on board.

8.2.5 Personnel Transfer

When transfers of personnel are performed using methods such as gangway, personnel basket, boat, helicopter, or any combination of these, the provisions of IMO Resolution <u>A.863(20)</u>, *Code of Safe Practice for the Carriage of Cargoes and Persons by Offshore Supply Vessels (OSV Code)* shall be followed.

<sup>&</sup>lt;sup>8</sup> The Administrator recommends that the drilling, production, and processing equipment and systems on each unit be designed, constructed, maintained, and verified in accordance with recognized international standards. A Classification Society's notation or equivalent coastal State certification scheme may be considered acceptable.

# 8.3 Units Handling Liquified Gases

- 8.3.1 Units being certified under these standards, for which the primary service is to handle liquified gases, shall also be reviewed for compliance with the appropriate parts of the IGC Code. The specific parts of the IGC Code will be identified after consultation between the RO, the owner, and the Administrator.
- 8.3.2 Typically, the following areas in the IGC Code would be considered for application:
  - .1 Materials of construction;
  - .2 Safety systems;
  - .3 Fire protection;
  - .4 Operational procedures; and
  - .5 Other areas of the IGC Code depending on the unit design and intended operation.
- 8.3.3 Units that typically handle liquified gases and are certified under these standards could include those for:
  - .1 liquefaction and storage (FLNG);
  - .2 storage and regasification (FSRU);<sup>9</sup>
  - .3 regasification (FRU);<sup>9</sup> and
  - .4 storage (FSU).<sup>9</sup>
- 8.3.4 Any vessel which engages in the transportation of liquified gases shall be in full compliance with, and be certified in accordance with, the IGC Code.

# 8.4 Other Service Units

Other service units not expressly covered by §8.1 through §8.3 of these MOU Standards will be considered on a case-by-case basis.

<sup>&</sup>lt;sup>9</sup> The MI-293 does not apply to units handling liquified gases that do not carry a MODU certificate.