



RULES CHANGE NOTICE No.1

October 2022

Part 5 Offshore Technology

Volume VI

RULES FOR MOBILE OFFSHORE UNITS

Consolidated Edition 2022

Biro Klasifikasi Indonesia

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Foreword

This Rules Change Notices (RCN) No. 1 provide amendment to the Rules for Mobile Offshore Units (Pt.5, Vol.VI) along with effective date from which these changes are applicable.

Amendments to the preceding edition are marked by strikethrough, red color, and expanded text. These new additions and amendments are to be read in conjunction with the requirements given in the 2022 Consolidated Edition of the Rules.

The summary of current amendments for each section including the implementation date are indicated in ***Table 1 - Amendments Incorporates in This Notice.***

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Any quires or comments concerning these Rules are welcomed through communication with BKI Head Office.

Rules Changes Notice No. 1 – October 2022

Table 1 – Amendments Incorporates in This Notice

These amendments come into force for mobile offshore units contracted for construction on or after **1 January 2023**.

| Paragraph | Title/Subject | Status/Remark |
|--|---|---|
| Section 10 – Fire Protection, Means of Escape and Fire Extinction | | |
| 10.C | Fire Extinguishing System | |
| 10.C.1.1 | - | Renumbering |
| 10.C.1.2 | - | To add new requirements related to the fire extinguishing systems that are to be provided in Drilling Unit. |
| 10.C.1.2.1 | Fixed fire extinguishing systems on drilling and areas | |
| 10.C.1.2.2 | Fixed fire extinguishing systems on mud processing area | |
| 10.C.2.3 | - | To add a consideration related to the pump arrangement. |
| 10.C.2.5 | - | To add requirements of pump capacity that used for foam system. |
| 10.C.4 | - | To specifically mentions the type of nozzle. |
| 10.C.11.1.2 | - | To clarify the phrase “near other openings of accommodation spaces” in point 7) with regard to the fitting of fixed automatic combustible gas detection and alarm system. |
| 10.C.11.1.3 | - | To clarify where fixed automatic combustible gas detection and alarm system are required and not required to be fitted. |
| 10.C.11.1.4 | - | Renumbering |
| 10.C.11.1.5 | - | Renumbering |
| 10.C.14.2.1 | - | Corrigenda |
| 10.C.14.2.2 | - | To add requirements regarding the location of the CO ₂ extinguishers in Helicopter Facilities |
| 10.C.14.2.3 | - | To add information related to the minimum application rate for other types of foam and their activation time. |
| 10.C.17 | Alarm and public address | To add requirements related to the alarm and public address. |

Section 10 Fire Protection, Means of Escape and Fire Extinction

C. Fire Extinguishing System

1. Application

1.1 Fire detection and extinguishing systems provided in the units are to comply with the requirements in this Section.

1.2 Fixed and portable fire extinguishing systems are to be provided in accordance with this Section except the requirements of 1.2.1 and 1.2.2.

(IACS UR D11.3.1)

1.2.1 Fixed fire extinguishing systems on drilling areas

- 1) A fixed water spray system is to be provided to protect drilling area. The minimum water application rate is not less than 20,4 litre/min·m², or
- 2) At least two dual-purpose (jet/spray) fire monitors are to be installed to cover drilling and well test areas. The minimum capacity of each monitor is not less than 100m³/h. The monitors may be operated either remotely or locally. Monitor arranged for local operation should be sited on an accessible protected position.

(IACS UR D11.3.2)

1.2.2 Fixed fire extinguishing systems on mud processing area

A suitable fixed foam system is to be provided. The system is to be capable of delivering foam solution at a rate of not less than 6,5 litre/min·m² (4,1 litre/min·m² for Aqueous Film Forming Foam or Film-Forming Fluoroprotein Foam) for 15 minutes. Alternatively, a gas fixed fire extinguishing system may be used for enclosed mud processing spaces.

(IACS UR D11.3.3)

2. Fire Pumps and Water Supply

2.1 At least two independently driven power pumps are to be provided, each arranged to draw directly from the sea and discharge into a fixed fire main. However, in units with high suction lifts, booster pumps and storage tanks may be installed.

2.2 At least one of the pumps required in 2.1 is to be dedicated ~~from~~ for fire-fighting duties and be available for such duties at all times.

2.3 The arrangements of the pumps, sea suction (piping and valves) and sources of power are to be such as to ensure that a fire or flooding in any one space would not put both the pumps required in 2.1 out of action.

(IACS UR D.11.2.1)

2.4 The capacity of the pumps required in 2.1 is to be appropriate to the fire-fighting services supplied from the main. However, the total capacity of the pumps are to be appropriate to BKI. (Need not exceed 180 m³/hr).

(IACS UR D.11.2.4)

2.5 Each pump is to be capable of delivering at least one jet simultaneously from each of any two fire hydrants, hoses and 19 mm nozzles while maintaining a minimum pressure of 0,35 MPa at any hydrant. In addition, where a foam system is provided for protection of the helicopter deck, the pump ~~are~~ is to be capable of maintaining a pressure of 0,7 MPa at the foam installation ~~and the water consumption used for foam system is to be added to the pump capacity~~. If the water consumption for any other fire protection or fire-fighting purpose ~~are~~ is to exceed the rate of the helicopter deck foam installation, this consumption is to be the determining factor in calculating the required capacity of the fire pump.

(IACS UR D.11.2.2)

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4. Nozzles

~~Dual purpose jet spray~~ nozzles are to comply with the following requirements:

4.1 Standard nozzle sizes are to be 12 mm, 16 mm and 19 mm or as near thereto as possible. Larger diameter nozzles may be permitted at the discretion of BKI.

4.2 For accommodation and service spaces, a nozzle size greater than 12 mm need not be used.

4.3 For machinery spaces and exterior locations, the nozzle size is to be such as to obtain the maximum discharge possible from two jets at the pressure specified in 2.5 from the smallest pump, provided that a nozzle size greater than 19 mm need not be used.

(IACS UR D.11.2.3)

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11. Gas Detection and Alarm System

11.1 Combustible Gas Detection and Alarm System

11.1.1 A fixed automatic gas detection and alarm system are to be provided to the satisfaction of BKI so arranged as to monitor continuously all enclosed areas of the units in which an accumulation of flammable gas may be expected to occur and capable of indicating at the main control point by aural and visual means the presence and locations of an accumulation. The gas detection system is to be designed according to [Rules for Electrical Installations \(Pt.5, Vol. V\) Sec.9.C.10](#).

11.1.2 Fixed automatic combustible gas detection and alarm systems are to be provided for the following areas:

- 1) Cellar deck
- 2) Drill floor
- 3) ~~Ventilation intake of positive pressure explosion-proof driller's cabin.~~
- ~~3~~4) Mud pit area
- ~~4~~5) Shale shaker area
- ~~5~~6) Enclosed spaces containing the open components of mud circulation system from the bell nipple to the mud pits.
- ~~6~~7) Ventilation intakes of enclosed machinery spaces contiguous to hazardous areas and containing internal combustion engines and boilers; ~~and or non-explosion proof electrical equipment~~
- ~~7~~8) Ventilation intakes ~~and near other openings~~ of accommodation spaces.

- 9) Air intakes to all combustion engines or machinery, including internal combustion engines, boilers, compressors or turbines, located outside of an enclosed machinery space
- 10) At each access door to accommodation spaces.
- 11) Near other openings, including emergency egress, of accommodation spaces, regardless if these openings are fitted with self-closing and gastight closing appliances.

(IACS UR D11.7.1)

11.1.3 Fixed automatic combustible gas detection and alarm systems are not required:

- 1) Near access doors to accommodation spaces where these form part of an air-lock which is provided with a gas detection and alarm system between the two doors of the air-lock.
- 2) Near emergency egress doors which are fitted with a mechanism to prevent use other than in an emergency (e.g. doors fitted with security seals acting as a deterrent but easily breakable in a real emergency.)
- 3) Near other openings which are provided with closing appliances of non-opening type, e.g. bolted closed maintenance ways etc.

(IACS UR D11.7.2)

11.1.34 The gas detectors are to be connected to an audible and visual alarm system with indicators on the drill floor and in the main control station. The alarm system is to clearly indicate the location and concentration of the gas hazard. The combustible gas detectors are to alarm at not more than 20% and at 60% of the lower explosive limit (LEL).

11.1.45 At least two portable gas monitoring devices are to be provided, each capable of accurately measuring a concentration of flammable gas.

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14. Fire Extinguishing System for Helicopter Facilities

14.1 This section provides additional measures in order to address the fire safety objectives for units fitted with facilities for helicopters and meets the following functional provisions:

- 1) Helideck structure should be adequate to protect the unit from the fire hazards associated with helicopter operations;
- 2) Fire-fighting appliances should be provided to adequately protect the unit from the fire hazards associated with helicopter operations;
- 3) Refuelling facilities and operations should provide the necessary measures to protect the unit from the fire hazards associated with helicopter operations; and
- 4) Helicopter facility operation manuals and training are to be provided

14.2 On helicopter decks, following fire extinguishing systems are to be provided at the space which can be readily accessible.

14.2.1 At least two dry powder extinguishers with aggregate total capacity not less than 45 kg but not less than 9,0 kg each.

(IACS URD.11.4.2(a))

14.2.32 Carbon dioxide (CO₂) extinguishers with an aggregate of a total capacity of not less than 18 kg or efficient extinguishers equivalent of these. One of these extinguishers is to be able to reach machinery part of helicopter. The CO₂ extinguishers are to be located so that they would not be vulnerable to the same damage as the dry powder extinguishers.

(IACS URD.11.4.2(b))

14.2.23 A suitable foam application system (fixed or portable) capable of delivering a foam solution at a rate of not less than 6,0 ~~litre/min·m²~~ (4,1 litre/min·m² for Aqueous Film Forming Foam or Film-Forming Fluoroprotein Foam) ~~per minute for each square metre~~ of a zone with a circle of diameter (D), and sufficient foam compound to enable the rate to be maintained for at least 5,0 minutes, where D is an overall length of helicopter when a helicopter's rotor rotates. Foam delivery at the minimum application rate should start within 30 second of system activation.

(IACS URD.11.4.3(b))

14.2.4 A deck water system capable of delivering at least two jets of water to any part of the helicopter operating area and at least two fire hoses and nozzles which are to be of the dual purpose type.

(IACS URD.11.4.3(a))

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17. Alarms and public address

17.1 General alarms

17.1.1 A general alarm system is to be provided and so installed as to be clearly perceptible in all parts of the unit. Alarm signal devices are to be provided which will produce a distinctive and strong note.

The signals used should be limited to: general emergency, toxic gas (hydrogen sulphide), combustible gas, fire alarm and abandon unit signals.

The signals given over the general alarm system should be supplemented by instructions over the public address system.

In addition, see also [Section 11.A.3.1](#)

17.1.2 At least in the following spaces general alarm is to be capable of being operated:

- 1) Main control station;
- 2) Drilling console;
- 3) Navigating bridge (if any); and
- 4) Fire control station (if any).

17.2 Mud system level alarms

See [Section.8.C.1.3](#)

17.3 Ventilation system alarm

See [Section 9.A.4.](#)

17.4 Public address

17.4.1 The public address system is to be a loudspeaker installation enabling the broadcast of messages into all spaces where personnel are normally present and muster stations. It is to allow for the broadcast of messages from navigation bridge, central control room, emergency response centre, engine control room, ballast control station, jacking control station and drilling console. It is to be installed with regard to acoustically marginal conditions and not require any action from the addressee. It is to be protected against unauthorized use.

17.4.2 The minimum sound pressure levels for broadcasting emergency announcements are to be:

- 1) In interior spaces 75dB(A) and at least 20dB(A) above the speech interference level; and
- 2) In exterior spaces 80dB(A) and at least 15dB(A) above the speech interference level.

(IACS UR D.11.5)

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