

Proposed amendments to the Regulations on construction of mobile offshore units, the Regulations on protective, environmental and safety measures on mobile offshore units and the Regulations on potable water and potable water systems on mobile offshore units

Laid down by the Norwegian Maritime Authority on dd Month 2017 under the Act of 16 February 2007 No. 9 on ship safety and security (Ship Safety and Security Act) sections 2, 6, 7, 8, 9, 11, 14, 16, 21, 22, 26, 28a and 45, cf. Formal Delegation of 16 February 2007 No. 171, Formal Delegation of 31 May 2007 No. 590 and Formal Delegation of 19 August 2013 No. 1002.

I

Regulations of 4 September 1987 No. 856 on the construction of mobile offshore units are amended as follows:

Section 6 new item 1.2 should read:

1.2. *When dimensioning load-bearing structures, simultaneous environmental loads with an annual probability of 10^{-2} for wind and waves and an annual probability of 10^{-1} for current shall as a minimum be used.*

Section 6 item 2.1 should read:

2.1. A calculation of the unit, including hull, deck, legs, leg supports, elevating and locking system for legs, *deckhouses* and other main structural members, shall be carried out.

Section 6 item 2.2 and new items 2.2.1 to 2.2.3 should read:

2.2. The calculations shall be carried out in accordance with the design criteria and calculation methods currently in force, as set out in the rules of an MOU classification society. *The calculations shall take into account the following:*

2.2.1. The calculations shall be carried out for the relevant loading conditions with the least favourable combination of the maximum local environmental and functional loads.

2.2.2. *When dimensioning load-bearing structures, the buckling resistance shall be the same for permanent loads, variable functional loads, environmental loads and deformation loads, or combinations of these loads.*

2.2.3. The elevating machinery for self-elevating units shall be designed to lift 50% above normal load. The locking system for the legs shall be designed for 3 times the normal load.

The existing section 6 items 2.4 to 2.10 become new items 2.2.4 to 2.2.10.

Section 6 item 5.3 should read:

5.3. Self-elevating units shall have spud cans suitable for the seabed conditions at the site.

Section 10 item 1.1.3 should read:

1.1.3 By means of model tests or by calculation it shall be demonstrated that the unit has a safe movement and immersion characteristic in all probable wave spectra up to the maximum wave height for which the unit is designed. *In the case of negative clearance between the underside of the lower deck and the maximum wave crest elevation, the unit, including superstructure and deckhouse, shall be dimensioned for wave impact loads. Model tests and calculations shall be carried out in accordance with DNVGL OTG 13 «Prediction of air gap for column stabilised units» and DNVGL OTG 14 «Horizontal wave impact loads for column stabilised units» or guidelines with an equivalent safety level.*

Section 10 item 1.2 should read:

1.2 Self-elevating units.

In the elevated condition, the distance between the maximum design wave crest and the underside of the lower deck shall be positive for the highest wave crest with an annual probability of 10^{-4} including seasonal adjustment. When calculating the maximum wave crest elevation, the water level including storm and astronomical tide shall be used as a basis.

Section 12 item 4 last indent is repealed.

Section 12 item 5 should read:

5. As an alternative to the requirement of item 4 regarding permanently fitted emergency lighting with built-in battery source of power, permanently fitted emergency lighting connected to uninterruptible power supply (UPS) may be used. An analysis of coverage, number of UPSs and routing of cables shall be carried out in order to ensure coverage as set out in item 1, even after a failure/incident in a room/area, cf. sections 22 and 24 of the Regulation of 22 December 1993 No. 1239 on risk analyses for mobile offshore units.

The existing section 12 item 5 becomes section 12 item 6.

Section 13 item 4 should read:

4. Equipment referred to in items 2.1 and 2.2 shall be certified. Equipment referred to in item 3 shall be type-approved by a notified body and marked in accordance with the Regulations of 30 August 2016 No. 1042 on marine equipment.

Section 14 item 3.4 should read:

3.4. The steps shall be made of minimum 22 mm square steel bar and so mounted that one of the square bar corners is pointing upwards. Alternatively, an equivalent non-slip solution may be used. There shall be single rungs in the vertical ladders and double rungs in inclined ladders.

II

Regulations of 4 September 1987 No. 859 on protective, environmental, and safety measures on mobile offshore units are amended as follows:

Section 6 item 3 is repealed.

Section 12 item 2.2 should read:

2.2. The unit's decks shall be kept free from accumulation of water, snow and ice. It shall be possible to lead drainage overboard.

Section 12 item 4.1 should read:

4.1. All pipes, bits, spare parts, steel plates and profiles, etc. shall be stored in a suitable and proper manner and be secured to withstand a heeling corresponding to the maximum heeling angle which the unit may have at the assumed damage as defined in section 21 of the Stability Regulations.

III

Regulations of 4 December 2015 No. 1406 on potable water and potable water systems on mobile offshore units are amended as follows:

Section 8 first paragraph should read:

- (1) *Mobile offshore units shall be provided with UV units with:*
- a) sufficient processing capacity at maximum water supply and at the poorest water quality, cf. section 2 first paragraph (c);
 - b) timer;
 - c) intensitometer;
 - d) signal lamps for each UV tube;
 - e) solenoid valve which shuts off the supply of water in the event of alarm or power failure.

Section 9 should read:

Section 9. *Additional treatment of potable water produced from seawater*

(1) *Mobile offshore units producing potable water from seawater shall be provided with an alkalisation plant or use water glass for treatment of water.*

(2) In the alkalisation plant means shall be provided for:

- a) sufficient return flushing of the filter;
- b) easy access for interior maintenance and replacement of the filter materials.

Section 12 should read:

Section 12 Bunkering station

(1) *Mobile offshore units shall be provided with a bunkering station. Mobile offshore units without a water production facility shall have at least two bunkering stations.*

(2) A bunkering station shall be provided with a shut-off valve. Between the shut-off valve and the hose connection there shall be a water test tap and a flush valve.

(3) The flush valve shall be readily accessible and shall have the same capacity as the bunkering pipe.

IV

In the following provisions, the term "certified" is changed to "initially certified".

1. section 7 fifth paragraph, section 10 third paragraph second sentence and section 17 of the Regulations of 4 December 2015 No. 1406 on potable water and potable water systems on mobile offshore units;
2. section 5 fourth paragraph, section 8 fifth paragraph and section 15 of the Regulations of 4 December 2015 No. 1392 on towing arrangement and transit of mobile offshore units;
3. section 17 second paragraph, section 18 second paragraph and section 21 of the Regulations of 27 January 2016 No. 67 on ballast systems on mobile offshore units;
4. section 29 sixth paragraph and section 38 of the Regulations of 2 February 2016 No. 90 on evacuation and life-saving appliances on mobile offshore units.

V

This Regulation enters into force on 1 January 2018.