

# Regulations of 15 September 1992 No. 704 on operating arrangements on Norwegian ships

**Legal basis:** Laid down by the Norwegian Maritime Authority on 15 September 1992 under the Act of 9 June 1903 No. 7 relating to Public Control of the Seaworthiness of Ships, etc. Legal basis amended to Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) sections 2, 9, 11, 14 and 43, cf. Formal Delegation of 16 February 2007 No. 171 and Formal Delegation of 31 May 2007 No. 590.

**Amendments:** Amended by Regulations of 27 April 1999 No. 538, 1 June 2004 No. 855, 29 June 2007 No. 1006 (i.a. legal basis).

## Chapter 1 General provisions

### Section 1 *Scope of application*

(1) These Regulations apply to Norwegian passenger ships irrespective of size and other Norwegian ships of more than 50 gross tonnage which will be practicing:

- a) operation with periodically unmanned engine-rooms.
- b) watchkeeping/duty with one person alone in the engine-room.
- c) bridge watch routines<sup>1</sup> requiring use of the automatic pilot and internal communications system.

(2) These Regulations apply to both new and existing ships.

(3) Section 10 of these Regulations applies to all ships of more than 500 gross tonnage irrespective of whether the ship has been approved for operation with periodically unmanned engine-rooms or not.

(4) These Regulations apply to fishing vessels.

(5) These Regulations do not apply to pleasure craft.

(6) These Regulations do not apply to pleasure craft used for non-commercial purposes.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

<sup>1</sup> Cf. Regulations of 27 April 1999 No. 537 on watchkeeping on passenger ships and cargo ships.

### Section 2 *Definitions*

For the purpose of these Regulations, the following definitions shall apply:

- a) “*Other ships*”: All ships other than passenger ships;
- b) “*Recognised classification societies*”:
  1. Det Norske Veritas.
  2. Lloyd’s Register of Shipping.
  3. Bureau Veritas.
  4. Germanischer Lloyd.
  5. American Bureau of Shipping.
- c) “*Gross tonnage*”: The numeric value indicated as gross tonnage in the Tonnage Certificate. If safety tonnage is entered in the “Remarks” column of the Tonnage Certificate, the numeric value for such tonnage shall apply as gross tonnage.
- d) “*Approved*”: Approved by the Norwegian Maritime Authority.
- e) “*Classified ship*”: A ship which is classified in a recognised classification society.
- f) “*Passenger ship*”: A ship that can carry more than 12 passengers or which is required to have official permission to carry passengers.
- g) “*Watchkeeping Regulation*”: The Regulations currently in force at any time on watchkeeping on passenger ships and cargo ships.
- h) “*Watchkeeping arrangement*”: A working arrangement in which working hours for crew members are divided, wholly or partially, into watches and during which the entire crew is normally required to be on board.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

## Section 3

### *Duties*

The company, master and other persons working on board shall perform their duties in accordance with the Ship Safety and Security Act and the supplementary provisions laid down in these Regulations.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007).

## Section 4

### *Exemptions*

The Norwegian Maritime Authority may, in individual cases and upon written application, grant exemptions from the requirements of these Regulations. There must be special reasons that make the exemptions necessary and they must be justifiable in terms of safety. Exemptions must not contravene international agreements to which Norway has acceded.

## Chapter 2

### Survey, control and approval

## Section 5

### *Survey and control*

(1) When new systems and installations and/or alterations to existing systems have been completed, these systems shall be surveyed and function-tested as far as deemed necessary by the Norwegian Maritime Authority/recognized classification society.

(2) For ships with forms of operation approved under sections 8, 10, 11 and 12, control and function-testing of systems shall be carried out at regular intervals by personnel on board. Function-testing shall be entered in the deck/engine-room log book.

## Section 6

### *Approval*

(1) The Norwegian Maritime Authority approves the operating arrangement on the individual ship on the basis of notification from one of the Authority's stations or from a recognized classification society.

(2) If the technical conditions for approval no longer apply, or if the class notation has been deleted, one of the Norwegian Maritime Authority's stations or a recognized classification society shall notify the Authority of this in writing.

## Chapter 3

### Watch arrangements in engine-rooms

## Section 7

### *Main rule – manned engine-rooms*

Normally the engine-room shall be continuously manned.

## Section 8

### *Exception – operation with periodically unmanned engine-rooms*

(1) For approval of operation with periodically unmanned engine-rooms, cf. section 9, ships must meet the following conditions:

- a) Classified ships shall comply with the rules set out by the relevant classification society regarding instrumentation and automation, and have this society's class notation for operation with periodically unmanned engine-rooms.
- b) unclassified ships shall comply with the requirements set out in Det Norske Veritas' rules for operation with periodically unmanned engine-rooms.

(2) Ships with a propulsion output of more than 750 kW may not practise operation with periodically unmanned engine-rooms in the following circumstances:

- a) manoeuvring in and out of port;
- b) within the safety zone around offshore petroleum installations;
- c) in heavily trafficked waters;
- d) in reduced visibility.

## Section 9

### *Unmanned engine-rooms – duration*

(1) For passenger ships, the Norwegian Maritime Authority will specify how long the engine-room may be unmanned in each individual case, dependent on operational circumstances, etc. Unmanned operation shall normally not exceed 2 hours.

(2) For ships other than passenger ships, operation with periodically unmanned engine-rooms shall be limited to the periods specified in the rules of the classification society in question. The interval between each inspection shall not exceed 24 hours.

## Chapter 4

### Operational aids and functional requirements

## Section 10

### *Personnel alarm (Dead man's alarm)*

(1) On ships of more than 500 gross tonnage, a one-man watch in the engine-room is not permitted unless an automatic personnel alarm (dead man's alarm) has been installed.<sup>1</sup>

(2) The alarm system shall comply with the following requirements<sup>2</sup>:

- a) The personnel alarm shall be arranged to give the alarm on the navigation bridge, in the officers' cabins, messrooms and recreation rooms if it has not been acknowledged from the engine-room. The alarm shall be automatically activated after a pre-set period of time not exceeding 30 minutes.
- b) A pre-warning signal shall be provided in the engine-room which will be activated 3 minutes before the alarm required in subparagraph 1 is given.
- c) The alarm system shall be put into operation in the following way:
  - 1. Automatically when the engineer or engine-room attendant of the watch has to attend the engine-room in case of an engine-room alarm.
  - 2. Manually by the engineer or engine-room attendant of the watch when attending the engine-room on routine checks.
- d) The alarm system shall be disconnected by the engineer/engine-room attendant of the watch after leaving the engine-room. When the alarm system is brought into operation automatically in accordance with subparagraph c) item 1, disconnection shall not be possible before the engineer/engine-room attendant has acknowledged the alarm in the engine-room.
- e) the personnel alarm may also activate the engineers' alarm.<sup>3</sup>

<sup>1</sup> In accordance with IMO Assembly Resolution A.481 (XII), Annex 2, Part 7 "Engineering Watchkeeping", subparagraph 7.3.

<sup>2</sup> In accordance with IMO Assembly Resolution A.686 (17), subparagraph 7.1 "Personnel Alarm".

<sup>3</sup> An alarm operated from the engine control room or from the manoeuvring platform, as appropriate, to alert personnel in the engineers' accommodation that assistance is needed in the engine-room, cf. IMO Assembly Resolution A.686 (17), subparagraph 2.3.5.

## Section 11

### *Automatic pilot system*

Before bridge watch-keeping functions with watchkeeping routines requiring the use of the automatic pilot can be practised, the following requirements must be satisfied:<sup>1</sup>

- a) *General*
  - 1. Within the limits related to a vessel's manoeuvrability, the automatic pilot, in conjunction with its source of heading information, shall enable the ship to keep a preset course with minimum operation of the ship's steering gear.
  - 2. The automatic pilot equipment shall be capable of adapting to the different steering characteristics of the ship under various weather and loading conditions, and provide reliable operation under the prevailing environmental and normal operational conditions.
- b) *Changing over from automatic to manual steering and vice versa*
  - 1. Changing over from automatic to manual steering and vice versa shall be possible at any rudder position and be effected by one, or at the most two manual controls within a time lag of 3 seconds.

2. Changing over from automatic to manual steering shall be possible under any conditions, including any failure in the automatic control system.
  3. When changing over from manual to automatic steering, the automatic pilot shall be capable of bringing the vessel onto the pre-set course.
  4. Change-over controls shall be located close to each other in the immediate vicinity of the main steering position.
  5. Clear indication shall be provided to show which method of steering is in operation at a particular moment.
- c) *Alarm and signal system*
1. A course monitor shall be provided which activates an “off course” audible alarm signal after a course deviation of a pre-set amount.
  2. The information required to start the course monitor shall be provided from an independent source.
  3. Alarm signals, both audible and visual, shall be provided in order to indicate failure or a reduction in the power supply to the automatic pilot or course monitor if this will have an effect on the safe operation of the equipment.
  4. The alarm signalling facilities shall be fitted in close proximity to the main steering position.
- d) *Controls*
1. The number of operational controls shall be kept to a minimum and they shall be designed to preclude inadvertent operation.
  2. Unless features for automatic adjustments are incorporated in the installation, the automatic pilot shall be equipped with adequate controls for operational use to adjust for effects due to weather and the ship’s steering performance.
  3. The automatic pilot shall be so designed as to ensure a change of course to starboard when the course setting control is turned clockwise. Normal changes of course should be possible to effect by one adjustment only of the course setting control.
  4. With the exception of the course setting control, activation of any other instrument shall not significantly affect the ship’s course.
  5. Additional controls at remote positions shall comply with the provisions of this section.
- e) *Rudder angle limitation*
- Means shall be incorporated in the equipment to enable rudder angle limitation in the automatic mode of operation. Means shall also be available to indicate when the angle of limitation has been reached.
- f) *Permitted yaw* Means shall be incorporated to prevent unnecessary activation of the rudder due to normal yaw motion.

<sup>1</sup> In accordance with IMO Assembly Resolution A.342 (IX) “Recommendation on Performance Standards for Automatic Pilots”, paragraphs 1 to 6, and IMO Assembly Resolution A.574 (14) “Recommendation on General Requirements for Electronic Navigational Aids”.

## Section 12

### *Internal communications*

(1) Before bridge watch functions including watchkeeping routines requiring use of an internal communications system can be practised, the following requirements must be satisfied:<sup>1</sup>

(2) All ships using a watchkeeping arrangement shall be equipped with a calling system with the following functions:

- a) Connections shall be established from the navigation bridge to the mates’ cabins, cabins for deck crew and the cabins of other crew members who may form part of a navigational watch and all messrooms and recreation rooms.
- b) Means shall be provided to send a call signal from the navigation bridge to each individual cabin, messroom and recreation room, including a connection for subsequent two-way speech.
- c) In sleeping rooms, the arrangement shall be such that persons lying down must get up to answer the call signal and to speak.
- d) The navigation bridge shall have priority if the system is dependent on, or a part of, other speech communication systems on board.
- e) The system shall be connected to the main and emergency power source (not the emergency power source for the radio station). An automatic change-over shall take place if the main source of power fails.

(3) All ships practicing a watchkeeping arrangement in which the whole crew is on duty at the same time shall be equipped with internal communications equipment which enables the duty officer to summon assistance to the bridge as necessary.

<sup>1</sup> IMO Assembly Resolution A.481 (XII), Annex 2, Part 2. “Bridge Watchkeeping”, subparagraphs 2.2 and 2.3.

## Chapter 5 Concluding provisions

### Section 13 *Entry into force*

These Regulations enter into force on 1 November 1992. From the same date the Regulations of 17 February 1983 No. 148 concerning operating arrangements for ship's machinery installations are repealed.