

---

First published in the *Government Gazette*, Electronic Edition, on 27 December 2023 at 5 pm.

---

**No. S 892**

**MERCHANT SHIPPING ACT 1995**

**MERCHANT SHIPPING  
(SAFETY CONVENTION)  
(AMENDMENT) REGULATIONS 2023**

In exercise of the powers conferred by section 100 of the Merchant Shipping Act 1995, the Maritime and Port Authority of Singapore, with the approval of the Minister for Transport, makes the following Regulations:

**Citation and commencement**

1. These Regulations are the Merchant Shipping (Safety Convention) (Amendment) Regulations 2023 and come into operation on 1 January 2024.

**Amendment of Regulation 1 of Chapter II-1**

2. In the Merchant Shipping (Safety Convention) Regulations (Rg 11) (called in these Regulations the principal Regulations), in Chapter II-1, in Regulation 1(a), replace sub-paragraph (iii) with —

“(iii) For the purpose of this Chapter —

- (1) “ships constructed” means ships the keels of which are laid or which are at a similar stage of construction;
- (2) “ships constructed on or after 1 January 2024” means ships:
  - (A) for which the building contract is placed on or after 1 January 2024; or
  - (B) in the absence of a building contract, the keel of which is laid or which are at a similar stage of construction on or after 1 July 2024; or
  - (C) the delivery of which is on or after 1 January 2028;
- (3) “all ships” means ships constructed before, on or after 1 January 2009;

- (4) a cargo ship, whenever built, which is converted to a passenger ship shall be treated as a passenger ship constructed on the date on which such a conversion commences.”.

## **Replacement of Regulation 3-8 of Chapter II-1**

**3.** In the principal Regulations, in Chapter II-1, replace Regulation 3-8 with —

### **“Regulation 3-8**

#### *Towing and Mooring Equipment*

(a) Paragraphs (d) to (f) of this Regulation apply to ships constructed on or after 1 January 2007.

(b) Paragraphs (g) and (h) of this Regulation only apply to ships —

(i) for which the building contract is placed on or after 1 January 2024; or

(ii) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2024; or

(iii) the delivery of which is on or after 1 January 2027.

(c) This Regulation does not apply to towing arrangements provided in accordance with Regulation 3-4.

(d) Ships shall be provided with arrangements, equipment and fittings of sufficient safe working load to enable the safe conduct of all towing and mooring operations associated with the normal operation of the ship.

(e) Arrangements, equipment and fittings provided in accordance with paragraph (d) above shall meet the appropriate requirements of the Director or an organisation recognised by the Director under Regulation 6 of Chapter I.

(f) Each fitting or item of equipment provided under this Regulation shall be clearly marked with any limitations associated with its safe operation, taking into account the strength of the supporting ship’s structure and its attachment to it.

(g) For ships of 3,000 gross tonnage and above, the mooring arrangement shall be designed, and the mooring equipment including lines shall be selected, in order to ensure occupational safety and safe mooring of the ship, based on the guidelines developed by the Organisation. Ship-specific information shall be provided and kept on board.

(h) Ships of less than 3,000 gross tonnage should comply with the requirement in paragraph (g) above as far as reasonably practicable, or with applicable national standards determined by the Director.

(i) For all ships, mooring equipment, including lines, shall be inspected and maintained in a suitable condition for their intended purposes.”.

### **Amendment of Regulation 7-2 of Chapter II-1**

**4.** In the principal Regulations, in Chapter II-1, in Regulation 7-2 —

(a) replace the Regulation heading with —

*“Calculation of the Factor “ $s_i$ ””;*

(b) in paragraph (e), replace sub-paragraphs (ii) and (iii) with —

“(ii) The factor “ $s_i$ ” is to be taken as zero in those cases where the final waterline, taking into account sinkage, heel and trim, immerses —

(1) for cargo ships, the lower edge of openings through which progressive flooding may take place and such flooding is not accounted for in the calculation of factor “ $s_i$ ”. Such openings shall include air pipes, ventilators and openings which are closed by means of weathertight doors or hatch covers;

(2) any part of the bulkhead deck in passenger ships considered a horizontal evacuation route for compliance with Chapter II-2; and

(3) for passenger ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, the lower edge of openings through which progressive flooding may take place and such flooding is not accounted for in the calculation of factor “ $s_i$ ”. Such openings shall include air pipes, ventilators and openings which are closed by means of weathertight doors or hatch covers.

(iii) The factor “ $s_i$ ” is to be taken as zero if, taking into account sinkage, heel and trim, any of the following occur in any intermediate stage or in the final stage of flooding —

- 
- 
- (1) immersion of any vertical escape hatch in the bulkhead deck of passenger ships and the freeboard deck of cargo ships intended for compliance with Chapter II-2;
  - (2) any controls intended for the operation of watertight doors, equalisation devices, valves on piping or on ventilation ducts intended to maintain the integrity of watertight bulkheads from above the bulkhead deck of passenger ships and the freeboard deck of cargo ships become inaccessible or inoperable;
  - (3) immersion of any part of piping or ventilation ducts located within the assumed extent of damage and carried through a watertight boundary if this can lead to the progressive flooding of compartments not assumed as flooded; and
  - (4) for passenger ships constructed on or after 1 January 2024, immersion of the lower edge of openings through which progressive flooding may take place and such flooding is not accounted for in the calculation of factor “ $s_i$ ”. Such openings shall include air pipes, ventilators and openings which are closed by means of weathertight doors or hatch covers.”; and

(c) in paragraph (e), replace sub-paragraph (v) with —

“(v) Except as provided in paragraph (e)(iii)(1), openings closed by means of watertight manhole covers and flush scuttles, remotely operated sliding watertight doors, side scuttles of the non-opening type as well as watertight access doors and watertight hatch covers required to be kept closed during navigation in accordance with Regulations 22 to 24 need not be considered.”.

### **Amendment of Part B-2 of Chapter II-1**

5. In the principal Regulations, in Chapter II-1, in Part B-2, in the Part heading, replace “*And*” with “*and*”.

### **Amendment of Regulation 12 of Chapter II-1**

6. In the principal Regulations, in Chapter II-1, in Regulation 12(f) —

- (a) in sub-paragraph (i), replace “Except as provided in paragraph (f)(ii)” with “For ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, except as provided in paragraph (f)(iii)”;
- (b) after sub-paragraph (i), insert —
- “(f) (ii) For ships constructed on or after 1 January 2024, except as provided in paragraph (f)(iii), the collision bulkhead may be pierced below the bulkhead deck of passenger ships and the freeboard deck of cargo ships by not more than one pipe for dealing with fluid in the forepeak tank, provided that the pipe is fitted with a remotely controlled valve capable of being operated from above the bulkhead deck of passenger ships and the freeboard deck of cargo ships. The valve shall be normally closed. If the remote control system should fail during operation of the valve, the valve shall close automatically or be capable of being closed manually from a position above the bulkhead deck of passenger ships and the freeboard deck of cargo ships. The valve shall be located at the collision bulkhead on either the forward or aft side, provided the space on the aft side is not a cargo space. The valve shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable.”; and
- (c) renumber sub-paragraph (ii) as sub-paragraph (iii).

## **Replacement of Regulation 13 of Chapter II-1**

7. In the principal Regulations, in Chapter II-1, replace Regulation 13 with —

### **“Regulation 13**

#### ***Openings in watertight boundaries below the bulkhead deck in passenger ships***

- (a) The number of openings in watertight boundaries shall be reduced to the minimum compatible with the design and proper working of the ship; satisfactory means shall be provided for closing these openings.
- (b) (i) Where pipes, scuppers, electric cables, etc., are carried through watertight boundaries, arrangements shall be made to ensure the watertight integrity of the boundaries.

(b) (ii) Valves not forming part of a piping system shall not be permitted in watertight boundaries.

(b) (iii) Lead or other heat-sensitive materials shall not be used in systems which penetrate watertight boundaries, where deterioration of such systems in the event of fire would impair the watertight integrity of the boundaries.

(c) No doors, manholes or access openings are permitted in watertight transverse bulkheads dividing a cargo space from an adjoining cargo space, except as provided in paragraph (h)(i) and in Regulation 14.

(d) Subject to paragraph (i), not more than one door, apart from the doors to shaft tunnels, may be fitted in each watertight bulkhead within spaces containing the main and auxiliary propulsion machinery, including boilers serving the needs of propulsion. Where two or more shafts are fitted, the tunnels shall be connected by an intercommunicating passage. There shall be only one door between the machinery space and the tunnel spaces where two shafts are fitted and only two doors where there are more than two shafts. All these doors shall be of the sliding type and shall be so located as to have their sills as high as practicable. The hand gear for operating these doors from above the bulkhead deck shall be situated outside the spaces containing the machinery.

(e) (i) Watertight doors, except as provided in paragraph (h)(i) or Regulation 14, shall be power-operated sliding doors complying with the requirements of paragraph (f).

(e) (ii) The means of operation whether by power or by hand of any power-operated sliding watertight door shall be capable of closing the door with the ship listed to 15° either way. Consideration shall also be given to the forces which may act on either side of the door as may be experienced when water is flowing through the opening applying a static head equivalent to a water height of at least 1 m above the sill on the centreline of the door.

(e) (iii) Watertight door controls, including hydraulic piping and electric cables, shall be kept as close as practicable to the bulkhead in which the doors are fitted, in order to minimise the likelihood of them being involved in any damage which the ship may sustain. The positioning of watertight doors and their controls shall be such that if the ship sustains damage within one fifth of the breadth of the ship, as defined in Regulation 2, such distance being measured at right angles to the centreline at the level of the deepest subdivision draught, the operation of the watertight doors clear of the damaged portion of the ship is not impaired.

(f) (i) Each power-operated sliding watertight door —

(1) shall have a vertical or horizontal motion;

- 
- 
- (2) shall, subject to paragraph (i), be normally limited to a maximum clear opening width of 1.2 m. The Director may permit larger doors only to the extent considered necessary for the effective operation of the ship provided that other safety measures, including the following, are taken into consideration:
    - (A) special consideration shall be given to the strength of the door and its closing appliances in order to prevent leakages; and
    - (B) the door shall be located inboard the damage zone B/5;
  - (3) shall be fitted with the necessary equipment to open and close the door using electric power, hydraulic power or any other form of power that is acceptable to the Director;
  - (4) shall be provided with an individual hand-operated mechanism. It shall be possible to open and close the door by hand at the door itself from either side and, in addition, close the door from an accessible position above the bulkhead deck with an all-round crank motion or some other movement providing the same degree of safety acceptable to the Director. Direction of rotation or other movement is to be clearly indicated at all operating positions. The time necessary for the complete closure of the door, when operating by hand gear, shall not exceed 90 s with the ship in the upright position. Visual indicators to show whether the door is open or closed shall be provided at the accessible position above the bulkhead deck;
  - (5) shall be provided with controls for opening and closing the door by power from both sides of the door and also for closing the door by power from the central operating console(s) required by paragraph (g)(i);
  - (6) shall be provided with an audible alarm, distinct from any other alarm in the area, which will sound whenever the door is closed remotely by power and which shall sound for at least 5 s but no more than 10 s before the door begins to move and shall continue sounding until the door is completely closed. In the case of remote hand operation it is sufficient for the audible alarm to sound only when the door is moving. Additionally, in passenger areas and areas of high ambient noise the Director may require the audible alarm to be supplemented by an intermittent visual signal at the door; and
  - (7) shall have an approximately uniform rate of closure under power. The closure time, from the time the door begins to move to the time it reaches the completely closed position, shall in no case be

less than 20 s or more than 40 s with the ship in the upright position.

(f) (ii) The electrical power required for power-operated sliding watertight doors shall be supplied from the emergency switchboard either directly or by a dedicated distribution board situated above the bulkhead deck. The associated control, indication and alarm circuits shall be supplied from the emergency switchboard either directly or by a dedicated distribution board situated above the bulkhead deck and be capable of being automatically supplied by the transitional source of emergency electrical power required by Regulation 42(c)(i)(3) in the event of failure of either the main or emergency source of electrical power.

(f) (iii) Power-operated sliding watertight doors shall have either —

- (1) a centralised hydraulic system with two independent power sources each consisting of a motor and pump capable of simultaneously closing all doors. In addition, there shall be for the whole installation hydraulic accumulators of sufficient capacity to operate all the doors at least three times, i.e. closed-open-closed, against an adverse list of 15°. This operating cycle shall be capable of being carried out when the accumulator is at the pump cut-in pressure. The fluid used shall be chosen considering the temperatures liable to be encountered by the installation during its service. The power-operating system shall be designed to minimise the possibility of having a single failure in the hydraulic piping adversely affect the operation of more than one door. The hydraulic system shall be provided with a low-level alarm for hydraulic fluid reservoirs serving the power-operated system and a low gas pressure alarm or other effective means of monitoring loss of stored energy in hydraulic accumulators. These alarms are to be audible and visual and shall be situated on the central operating console(s) required by paragraph (g)(i);
- (2) an independent hydraulic system for each door with each power source consisting of a motor and pump capable of opening and closing the door. In addition, there shall be a hydraulic accumulator of sufficient capacity to operate the door at least three times, i.e. closed-open-closed, against an adverse list of 15°. This operating cycle shall be capable of being carried out when the accumulator is at the pump cut-in pressure. The fluid used shall be chosen considering the temperatures liable to be encountered by the installation during its service. A low gas pressure group alarm or other effective means of monitoring loss of stored energy in hydraulic accumulators shall be provided at the central operating



console(s) required by paragraph (g)(i). Loss of stored energy indication at each local operating position shall also be provided; or

- (3) an independent electrical system and motor for each door with each power source consisting of a motor capable of opening and closing the door. The power source shall be capable of being automatically supplied by the transitional source of emergency electrical power as required by Regulation 42(d)(ii) — in the event of failure of either the main or emergency source of electrical power and with sufficient capacity to operate the door at least three times, i.e. closed-open-closed, against an adverse list of 15°.

For the systems specified in paragraphs (f)(iii)(1), (f)(iii)(2) and (f)(iii)(3), provision should be made as follows: Power systems for power-operated sliding watertight doors shall be separate from any other power system. A single failure in the electric or hydraulic power-operated systems excluding the hydraulic actuator shall not prevent the hand operation of any door.

(f) (iv) Control handles shall be provided at each side of the bulkhead at a minimum height of 1.6 m above the floor and shall be so arranged as to enable persons passing through the doorway to hold both handles in the open position without being able to set the power closing mechanism in operation accidentally. The direction of movement of the handles in opening and closing the door shall be in the direction of door movement and shall be clearly indicated.

(f) (v) As far as practicable, electrical equipment and components for watertight doors shall be situated above the bulkhead deck and outside hazardous areas and spaces.

(f) (vi) The enclosures of electrical components necessarily situated below the bulkhead deck shall provide suitable protection against the ingress of water.

(f) (vii) Electric power, control, indication and alarm circuits shall be protected against fault in such a way that a failure in one door circuit will not cause a failure in any other door circuit. Short circuits or other faults in the alarm or indicator circuits of a door shall not result in a loss of power operation of that door. Arrangements shall be such that leakage of water into the electrical equipment located below the bulkhead deck will not cause the door to open.

(f) (viii) A single electrical failure in the power operating or control system of a power-operated sliding watertight door shall not result in a closed door opening. Availability of the power supply should be continuously monitored at a point in the electrical circuit as near as practicable to each of the motors required by paragraph (f)(iii). Loss of any such power supply should activate

an audible and visual alarm at the central operating console(s) required by paragraph (g)(i).

(g) (i) A central operating console for all power-operated sliding watertight doors shall be located in the safety centre in accordance with Regulation 23 of Chapter II-2. If the safety centre is located in a separate space adjacent to the navigation bridge, a central operating console shall also be located on the navigation bridge. The central operating console(s) shall have a “master mode” switch with two modes of control: a “local control” mode, which shall allow any door to be locally opened and locally closed after use without automatic closure, and a “doors closed” mode, which shall automatically close any door that is open in not more than 60 s with the ship in an upright position. The “doors closed” mode shall permit doors to be opened locally and shall automatically re-close the doors upon release of the local control mechanism. The “master mode” switch shall normally be in the “local control” mode. The “doors closed” mode shall only be used in an emergency or for testing purposes.

(g) (ii) For ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, the central operating console at the navigation bridge shall be provided with a diagram showing the location of each door, with visual indicators to show whether each door is open or closed. A red light shall indicate a door is fully open and a green light shall indicate a door is fully closed. When the door is closed remotely the red light shall indicate the intermediate position by flashing. The indicating circuit shall be independent of the control circuit for each door.

(g) (iii) For ships constructed on or after 1 January 2024, the central operating console(s) shall be provided with a diagram showing the location of each power-operated sliding watertight door, with visual indicators to show whether each door is open or closed. A red light shall indicate a door is fully open and a green light shall indicate a door is fully closed. When the door is closed remotely the red light shall indicate the intermediate position by flashing. The indicating circuit shall be independent of the control circuit for each door. Indication shall also be provided to the onboard stability computer, if installed in accordance with Regulation 8-1(c)(i) of Chapter II-1.

(g) (iv) It shall not be possible to remotely open any door from the central operating console.

(h) (i) If the Director is satisfied that such doors are essential, watertight doors of satisfactory construction may be fitted in watertight bulkheads dividing cargo spaces on ‘tween decks. Such doors may be hinged, rolling or sliding doors but shall not be remotely controlled. They shall be fitted at the highest level and as far from the shell plating as practicable, but in no case shall the outboard vertical edges be situated at a distance from the shell plating which is less than one fifth of the breadth of the ship, as defined in

Regulation 2, such distance being measured at right angles to the centreline at the level of the deepest subdivision draught.

(h) (ii) Should any such doors be accessible during the voyage, they shall be fitted with a device which prevents unauthorised opening. When it is proposed to fit such doors, the number and arrangements shall receive the special consideration of the Director.

(i) Portable plates on bulkheads shall not be permitted except in machinery spaces. The Director may permit not more than one power-operated sliding watertight door larger than those specified in paragraph (f)(i)(2) to be substituted for these portable plates in each watertight bulkhead, provided these doors are intended to remain closed during navigation except in case of urgent necessity at the discretion of the master. These doors need not meet the requirements of paragraph (f)(i)(4) regarding complete closure by hand-operated gear in 90 s.

(j) (i) Where trunkways or tunnels for access from crew accommodation to the machinery spaces, for piping, or for any other purpose are carried through watertight bulkheads, they shall be watertight and in accordance with the requirements of Regulation 16-1. The access to at least one end of each such tunnel or trunkway, if used as a passage at sea, shall be through a trunk extending watertight to a height sufficient to permit access above the bulkhead deck. The access to the other end of the trunkway or tunnel may be through a watertight door. Such trunkways or tunnels shall not extend through the first subdivision bulkhead abaft the collision bulkhead.

(j) (ii) Where it is proposed to fit tunnels piercing watertight bulkheads, these shall receive the special consideration of the Director.

(j) (iii) Where trunkways in connection with refrigerated cargo and ventilation or forced draught trunks are carried through more than one watertight bulkhead, the means of closure at such openings shall be operated by power and be capable of being closed from a central position situated above the bulkhead deck.”.

## **Amendment of Regulation 15 of Chapter II-1**

**8.** In the principal Regulations, in Chapter II-1, in Regulation 15 —

(a) replace paragraph (i) with —

“(i) For ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, gangway, cargo and fuelling ports fitted below the bulkhead deck of passenger ships and the freeboard deck of cargo ships shall be watertight and in no case be so fitted as to have their lowest point below the deepest subdivision draught.”; and

(b) in paragraph (j), replace sub-paragraphs (i) and (ii) with —

“(j) For ships constructed on or after 1 January 2024, cargo ports and other similar openings (e.g. gangway and fuelling ports) in the side of ships below the bulkhead deck of passenger ships and the freeboard deck of cargo ships shall be fitted with doors so designed as to ensure the same watertightness and structural integrity as the surrounding shell plating. Unless otherwise granted by the Director, these openings shall open outwards. The number of such openings shall be the minimum compatible with the design and proper working of the ship. In no case shall these openings be so fitted as to have their lowest point below the deepest subdivision draught.”.

### **Amendment of Regulation 16 of Chapter II-1**

9. In the principal Regulations, in Chapter II-1, in Regulation 16(a), replace sub-paragraph (i) with —

“(a) (i) The design, materials and construction of all watertight closures such as doors, hatches, sidescuttles, gangway and cargo ports, valves and pipes referred to in these Regulations shall be to the satisfaction of the Director.”.

### **Amendment of Regulation 17 of Chapter II-1**

10. In the principal Regulations, in Chapter II-1, in Regulation 17 —

(a) replace paragraph (a) (including the footnote) with —

---

---

“(a) For passenger ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, the Director may require that all reasonable and practicable measures shall be taken to limit the entry and spread of water above the bulkhead deck. Such measures may include partial bulkheads or webs. When partial watertight bulkheads and webs are fitted on the bulkhead deck, above or in the immediate vicinity of watertight bulkheads, they shall have watertight shell and bulkhead deck connections so as to restrict the flow of water along the deck when the ship is in a heeled damaged condition. Where the partial watertight bulkhead does not line up with the bulkhead below, the bulkhead deck between shall be made effectively watertight. Where openings, pipes, scuppers, electric cables, etc., are carried through the partial watertight bulkheads or decks within the immersed part of the bulkhead deck, arrangements shall be made to ensure the watertight integrity of the structure above the bulkhead deck.”;

(b) after paragraph (a), insert —

“(b) For ships constructed on or after 1 January 2024, the internal watertight subdivision arrangements to limit the entry and spread of water above the bulkhead deck shall be in accordance with the design arrangements necessary for compliance with the stability requirements in Part B-1, and Part B-2 if applicable. Where pipes, scuppers, electric cables, etc., are carried through internal watertight boundaries that are immersed at any intermediate or final stage of flooding in damage cases that contribute to the attained subdivision index A, arrangements shall be made to ensure their watertight integrity.

(c) For ships constructed on or after 1 January 2024, doors in internal watertight subdivision arrangements above the bulkhead deck, and also above the worst intermediate or final stage of flooding waterlines, shall be capable of preventing the passage of water when immersed in the required range of positive stability for any damage cases contributing to the attained subdivision index A. These doors may remain open provided they can be remotely closed from the navigation bridge. They shall always be ready to be immediately closed.”; and

(c) renumber paragraphs (b), (c), (d) and (e) as paragraphs (d), (e), (f) and (g), respectively.

---

---

**Amendment of Regulation 17-1 of Chapter II-1**

**11.** In the principal Regulations, in Chapter II-1, in Regulation 17-1(a), replace sub-paragraphs (i), (ii) and (iii) with —

“(a) (i) All access from the ro-ro deck that leads to spaces below the bulkhead deck shall have a lowest point which is not less than 2.5 m above the bulkhead deck, unless the access is covered by the provisions of paragraphs (a)(ii) or (a)(iii).

(ii) Where vehicle ramps are installed to give access to spaces below the bulkhead deck, their openings shall be able to be closed weathertight to prevent ingress of water below and fitted with alarms and open/close indicators on the navigation bridge. The means of closure shall be watertight if the deck is intended as a watertight horizontal boundary under Regulation 7-2(f).

(iii) Subject to Regulations 23(c) and 23(f), the Director may permit the fitting of particular accesses to spaces below the bulkhead deck provided they are necessary for the essential working of the ship, e.g. the movement of machinery and stores, and subject to such accesses being made watertight, fitted with alarms and open/close indicators on the navigation bridge.”.

**Amendment of Regulation 19 of Chapter II-1**

**12.** In the principal Regulations, in Chapter II-1, in Regulation 19, after paragraph (d), insert —

“(e) For passenger ships constructed on or after 1 January 2024, and to which Regulation 8-1(c) applies, the damage control information shall include a reference to activation of damage stability support from the onboard stability computer, if installed, and to shore-based support when provided.”.

**Amendment of Regulation 21 of Chapter II-1**

**13.** In the principal Regulations, in Chapter II-1, in Regulation 21, replace paragraph (a) with —

“(a) Operational tests of watertight doors, sidescuttles, valves and closing mechanisms of scuppers shall take place weekly. In ships in which the voyage exceeds one week in duration, a complete set of operational tests shall be held before the voyage commences, and others thereafter at least once a week during the voyage.”.

---

**Amendment of Regulation 22 of Chapter II-1**

**14.** In the principal Regulations, in Chapter II-1, in Regulation 22 —

(a) in paragraphs (a) and (d), replace “Regulation 13(j)” with “Regulation 13(i)”;

(b) replace paragraphs (e) and (f) with —

“(e) Watertight doors fitted in watertight bulkheads dividing cargo spaces on ‘tween-decks in accordance with Regulation 13(h)(i) shall be closed before the voyage commences and shall be kept closed during navigation. The time at which such doors are opened or closed shall be recorded in such logbook as may be prescribed by the Director.

(f) For ships subject to the provisions of Regulation 1(a)(i)(1) and constructed before 1 January 2024, gangway, cargo and fuelling ports fitted below the bulkhead deck of passenger ships and the freeboard deck of cargo ships shall be effectively closed and secured watertight before the voyage commences, and shall be kept closed during navigation.

(g) For ships constructed on or after 1 January 2024, gangway, cargo and fuelling ports fitted below the bulkhead deck of passenger ships and the freeboard deck of cargo ships and all watertight hatches shall be effectively closed and secured watertight before the voyage commences, and shall be kept closed during navigation. However, the master may permit a watertight hatch to be opened during navigation for a limited period of time sufficient to permit passage or for access. It shall then be closed.”;

(c) renumber paragraphs (g), (h), (i), (j), (k), (l), (m), (n), (o) and (p) as paragraphs (h), (i), (j), (k), (l), (m), (n), (o), (p) and (q), respectively;

(d) in paragraph (j) as renumbered by paragraph (c), replace “paragraphs (g)(i) and (g)(iv)” with “paragraphs (h)(i) and (h)(iv)”;

(e) in paragraph (k) as renumbered by paragraph (c), replace “paragraph (g)” with “paragraph (h)”;

(f) in paragraph (l) as renumbered by paragraph (c), replace “paragraph (l)” with “paragraph (m)”;

- (g) in paragraph (l) as renumbered by paragraph (c), replace “paragraph (m)” with “paragraph (n)”;
- (h) in paragraph (n) as renumbered by paragraph (c), replace sub-paragraph (ii) with —
  - “(ii) For any ship that has one or more sidescuttles so placed that the requirements of paragraph (n) would apply when it was floating at its deepest subdivision draught, the Director may indicate the limiting mean draught at which these sidescuttles will have their sills above the line drawn parallel to the bulkhead deck at side of passenger ships and the freeboard deck at side of cargo ships, and having its lowest point 1.4 m plus 2.5% of the breadth of the ship above the waterline corresponding to the limiting mean draught, and at which it will therefore be permissible for the voyage to commence without them being closed and locked and to be opened during navigation on the responsibility of the master. In tropical zones as defined in the International Convention on Load Lines, 1966, this limiting draught may be increased by 0.3 m.”; and
- (i) delete paragraph (q) as renumbered by paragraph (c).

### **Amendment of Regulation 23 of Chapter II-1**

15. In the principal Regulations, in Chapter II-1, in Regulation 23(e), replace “Regulation 22(l)” with “Regulation 22(m)”.

### **New Regulation 25-1 of Chapter II-1**

16. In the principal Regulations, in Chapter II-1, after Regulation 25, insert —

“Regulation 25-1

*Water level detectors on multiple hold cargo ships  
other than bulk carriers and tankers*

(a) Multiple hold cargo ships other than bulk carriers and tankers constructed on or after 1 January 2024 shall be fitted with water level detectors in each cargo hold intended for dry cargoes. Water level detectors are not required for cargo holds located entirely above the freeboard deck.



- (b) The water level detectors required by paragraph (a) shall —
- (i) give audible and visual alarms at the navigation bridge, one when the water level above the bottom of the cargo hold reaches a height of not less than 0.3 m, and another at a height not less than 15% of the depth of the cargo hold but not more than 2 m; and
  - (ii) be fitted at the aft end of the cargo holds. For cargo holds which are occasionally used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different water levels detected in each hold.
- (c) As an alternative to the water level detector at a height of not less than 0.3 m as per sub-paragraph (b)(i), a bilge level sensor serving the bilge pumping arrangements required by Regulation 35-1 and installed in the cargo hold bilge wells or other suitable location is considered acceptable, subject to —
- (i) the fitting of the bilge level sensor at a height of not less than 0.3 m at the aft end of the cargo hold; and
  - (ii) the bilge level sensor giving audible and visual alarm at the navigation bridge which is clearly distinctive from the alarm given by the other water level detector fitted in the cargo hold.”.

### **Amendment of Regulation 42 of Chapter II-1**

**17.** In the principal Regulations, in Chapter II-1, in Regulation 42 —

- (a) in paragraph (b)(ii)(2), replace sub-paragraph (cc) with —
  - “(cc) the MF/HF radio installation required by paragraphs (a)(i)(1) and (a)(i)(2) of Regulation 11 of Chapter IV.”;
- (b) in paragraph (d)(ii), replace “sub-paragraph (g)(iii)(3) of Regulation 15” with “sub-paragraph (f)(iii)(3) of Regulation 13”; and
- (c) in paragraph (d)(ii), replace “sub-paragraph (g)(ii) of Regulation 15” with “sub-paragraph (f)(ii) of Regulation 13”.

### **Amendment of Regulation 43 of Chapter II-1**

**18.** In the principal Regulations, in Chapter II-1, in Regulation 43(b)(iii)(2), replace sub-paragraph (cc) with —

“(cc) the MF/HF radio installation required by paragraphs (a)(i)(1) and (a)(i)(2) of Regulation 11 of Chapter IV.”.

### **Amendment of Regulation 6 of Chapter III**

**19.** In the principal Regulations, in Chapter III, in Regulation 6, replace paragraphs (a) and (b) (including the footnotes) with —

“(a) [Reserved\*]

(b) [Reserved]

\* The provisions related to two-way VHF radiotelephone apparatus and search and rescue locating devices have been relocated under Chapter IV (refer to resolution MSC.496(105)). Paragraphs (a) and (b) were intentionally left blank to avoid renumbering of existing Regulations.”.

### **Amendment of Regulation 33 of Chapter III**

**20.** In the principal Regulations, in Chapter III, in Regulation 33, replace paragraph (b) with —

“(b) On cargo ships of 20,000 gross tonnage and upwards, davit-launched lifeboats shall be capable of being launched, utilising painters where necessary, with the ship making headway at speeds up to 5 knots in calm water.”.

### **Replacement of Chapter IV**

**21.** In the principal Regulations, replace Chapter IV with —

“CHAPTER IV

RADIOCOMMUNICATIONS

PART A — GENERAL

Regulation 1

*Application*

(a) Unless expressly provided otherwise, this Chapter applies to all ships to which the present Regulations apply and to cargo ships of 300 gross tonnage and upwards.

(b) This Chapter does not apply to ships to which the present Regulations would otherwise apply while such ships are being navigated within the Great Lakes of North America and their connecting and tributary waters as far east

as the lower exit of the St Lambert Lock at Montreal in the Province of Quebec, Canada.<sup>1</sup>

(c) No provision in this Chapter shall prevent the use by any ship, survival craft or person in distress, of any means at their disposal to attract attention, make known their position and obtain help.

<sup>1</sup> Such ships are subject to special requirements relative to radio for safety purposes, as contained in the relevant agreement between Canada and the United States of America.

## Regulation 2

### *Terms and definitions*

(a) For the purpose of this Chapter, the following terms shall have the meanings defined below:

- (i) “AIS-SART” means an automatic identification system search and rescue transmitter capable of operating on frequencies dedicated for AIS (161.975 MHz (AIS1) and 162.025 MHz (AIS2)).
- (ii) “Bridge-to-bridge communications” means safety radiocommunications between ships from the position from which the ships are normally navigated.
- (iii) “Continuous radio watch” means that the radio and listening watch concerned shall not be interrupted other than for brief intervals when the ship’s receiving capability is impaired or blocked by its own communications or when the facilities are under periodical maintenance or checks.
- (iv) “Digital selective calling (DSC)” means a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations of the International Telecommunication Union Radiocommunication Sector (ITU-R).
- (v) “Emergency position-indicating radio beacon (EPIRB)” means a transmitter operating in the frequency band 406.0-406.1 MHz capable of transmitting a distress alert via satellite to a rescue coordination centre and transmitting signals for on-scene locating.
- (vi) “General radiocommunications” means communications other than distress, urgency and safety communications.
- (vii) “Global Maritime Distress and Safety System (GMDSS)” means a system that performs the functions set out in Regulation 4(a)(i).
- (viii) “GMDSS identities” means information which may be transmitted to uniquely identify the ship or its associated rescue boats and

---

---

survival craft. These identities are the ship's call sign, Maritime Mobile Service Identity (MMSI), EPIRB hexadecimal identity, recognised mobile satellite service identities and equipment serial numbers.

- (ix) "Locating" means the finding of ships, aircraft, survival craft or persons in distress.
- (x) "Maritime safety information (MSI)<sup>2</sup>" means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships.
- (xi) "Radar SART" means a search and rescue transponder operating on radar frequencies in the frequency band 9.2-9.5 GHz.
- (xii) "Radio Regulations" means the Radio Regulations complementing the Constitution and Convention of the International Telecommunication Union which is in force at any given time.
- (xiii) "Recognised mobile satellite service" means any service which operates through a satellite system and is recognised by the Organisation, for use in GMDSS.
- (xiv) "Satellite service on 406 MHz" means a service operating through a satellite system having global availability designed to detect EPIRBs transmitting in the frequency band 406.0-406.1 MHz.
- (xv) "Sea area A1" means an area within the radiotelephone coverage of at least one very high frequency (VHF) coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government.<sup>3</sup>
- (xvi) "Sea area A2" means an area, excluding sea area A1, within the radiotelephone coverage of at least one medium frequency (MF) coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government.<sup>3</sup>
- (xvii) "Sea area A3" means an area, excluding sea areas A1 and A2, within the coverage of a recognised mobile satellite service supported by the ship earth station carried on board, in which continuous alerting is available.
- (xviii) "Sea area A4" means an area outside of sea areas A1, A2 and A3.

(b) All other terms and abbreviations which are used in this Chapter and which are defined in the Radio Regulations and in the International Convention on Maritime Search and Rescue, 1979, as may be amended, shall have the meanings as defined in those Regulations and the SAR Convention.

<sup>2</sup> Refer to Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI) (MSC.1/Circ.1310, as revised).

<sup>3</sup> Refer to Provision of radio services for the Global Maritime Distress and Safety System (GMDSS) (resolution MSC.509(105)).

### Regulation 3

#### *Exemptions*

(a) The Contracting Governments consider it highly desirable not to deviate from the requirements of this Chapter; nevertheless, the Director may grant partial or conditional exemptions to individual ships from the requirements of Regulations 7 to 11 provided —

- (i) such ships comply with the functional requirements of Regulation 4; and
- (ii) the Director has taken into account the effect such exemptions may have upon the general efficiency of the service for the safety of all ships.

(b) An exemption may be granted under paragraph (a) only —

- (i) if the conditions affecting safety are such as to render the full application of Regulations 7 to 11 unreasonable or unnecessary; or
- (ii) in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the ship is equipped.

(c) Each Director shall report to the Organisation on all exemptions granted under paragraphs (a) and (b) giving the reasons for granting such exemptions.<sup>4</sup>

<sup>4</sup> Exemptions should be reported through the Organisation's Global Integrated Shipping Information System (GISIS) with reference to Issue of Exemption Certificates under the 1974 SOLAS Convention and Amendments thereto (SLS.14/Circ.115, as amended).

---

---

Regulation 4*Functional requirements<sup>5</sup>*

(a) Every ship, while at sea, shall be capable of —

(i) performing the GMDSS functions, which are as follows:

- (1) transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;
- (2) receiving shore-to-ship distress alert relays;
- (3) transmitting and receiving ship-to-ship distress alerts;
- (4) transmitting and receiving search and rescue coordinating communications;
- (5) transmitting and receiving on-scene communications;
- (6) transmitting and receiving signals for locating;<sup>6</sup>
- (7) receiving MSI;<sup>7</sup>
- (8) transmitting and receiving urgency and safety communications; and
- (9) transmitting and receiving bridge-to-bridge communications; and

(ii) transmitting and receiving general radiocommunications.

<sup>5</sup> It should be noted that ships performing GMDSS functions should use Guidelines for the avoidance of false distress alerts (resolution MSC.514(105)).

<sup>6</sup> Refer also to Regulations 19(b)(iii)(2) and 19(b)(iv) of Chapter V, as appropriate.

<sup>7</sup> It should be noted that ships may have a need for reception of certain maritime safety information while in port.

## Regulation 4-1

*GMDSS satellite providers*

The Maritime Safety Committee shall determine the criteria, procedures and arrangements for the evaluation, recognition, review and oversight of the provision of recognised mobile satellite services in the GMDSS pursuant to the provisions of this Chapter.<sup>8</sup>

<sup>8</sup> Refer to Criteria for the provision of mobile satellite communication systems in the Global Maritime Distress and Safety System (GMDSS) (resolution A.1001(25)) and Guidance to prospective GMDSS satellite service providers (MSC.1/Circ.1414).

---

---

PART B — UNDERTAKINGS BY CONTRACTING GOVERNMENTS<sup>9</sup>

<sup>9</sup>1 Each Contracting Government is not required to provide all radiocommunication services.

2 Provision No. 48.1 of the Radio Regulations applies to the operation of coast stations and coast earth stations.

Regulation 5

*Provision of radiocommunication services*

(a) Each Contracting Government undertakes to make available, as it deems practical and necessary, either individually or in cooperation with other Contracting Governments, appropriate shore-based facilities for the mobile satellite service and maritime mobile service having due regard to the recommendations of the Organisation.<sup>10</sup> These services are —

- (i) recognised mobile satellite services;
- (ii) a satellite service on 406 MHz;
- (iii) the maritime mobile service in the bands between 156 MHz and 174 MHz;
- (iv) the maritime mobile service in the bands between 4,000 kHz and 27,500 kHz; and
- (v) the maritime mobile service in the bands between 415 kHz and 535 kHz<sup>11</sup> and between 1,605 kHz and 4,000 kHz.

(b) Each Contracting Government undertakes to provide the Organisation with pertinent information concerning the shore-based facilities in the mobile satellite service and maritime mobile service, established for sea areas which it has designated off its coasts.<sup>12</sup> Each Contracting Government also undertakes to provide the Organisation with timely and adequate notice prior to the planned withdrawal of any of these services or any particular shore-based facilities.

<sup>10</sup> Refer to Provision of radio services for the Global Maritime Distress and Safety System (GMDSS) (resolution MSC.509(105)).

<sup>11</sup> Refer to Implementation of the NAVTEX system as a component of the World-Wide Navigational Warning Service (resolution A.617(15)).

<sup>12</sup> Information communicated by Contracting Governments is made available through GISIS.

Regulation 5-1

*GMDSS identities*

(a) This Regulation applies to all ships on all voyages.

(b) Each Contracting Government undertakes to ensure that suitable arrangements are made for registering GMDSS identities and for making information on these identities available to rescue coordination centres on a 24-hour basis. Where appropriate, international organisations maintaining a registry of these identities, such as the ITU Maritime Mobile Access and Retrieval System (MARS), shall be notified by the Contracting Government of these identity assignments.

## PART C — SHIP REQUIREMENTS

### Regulation 6

#### *Radio installations*

(a) Every ship shall be provided with radio installations capable of complying with the functional requirements prescribed by Regulation 4 throughout its intended voyage and, unless exempted under Regulation 3, complying with the requirements of Regulation 7 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either Regulation 8, 9, 10 or 11.

(b) Every radio installation shall be —

- (i) located in such a way that no harmful interference of mechanical, electrical or other origin affects its proper use, and that electromagnetic compatibility is ensured and harmful interaction avoided with other equipment and systems;
- (ii) so located as to ensure the greatest possible degree of safety and operational availability;
- (iii) protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;
- (iv) provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and
- (v) clearly marked with the GMDSS identities, as applicable, for use by the radio installation operator.

(c) Control of the VHF radiotelephone channels, required for navigational safety, shall be immediately available on the navigation bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigation bridge. Portable VHF equipment may be used to meet the latter provision.



(d) In passenger ships, a distress panel shall be installed at the conning position, which shall —

- (i) contain either one single button which, when pressed, initiates a distress alert using all radio installations required on board for that purpose or one button for each individual installation;
- (ii) clearly and visually indicate whenever any button or buttons have been pressed; and
- (iii) be provided with means to prevent inadvertent activation of the button or buttons referred to in paragraphs (d)(i) and (ii).

(e) In passenger ships, if an EPIRB is used as the secondary means of distress alerting and is not remotely activated from the distress panel, it shall be acceptable to have an additional EPIRB installed in the wheelhouse near the conning position.

(f) In passenger ships, a distress alarm panel shall be installed at the conning position, which —

- (i) shall provide visual and aural indication of any distress alert or alerts received on board;
- (ii) shall indicate through which radiocommunication service the distress alerts have been received; and
- (iii) may be combined with the distress panel referred to in paragraph (d).

## Regulation 7

### *Radio equipment: General*

(a) Every ship shall be provided with —

- (i) a VHF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes —
  - (1) DSC on the frequency 156.525 MHz (channel 70). It shall be possible to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated; and
  - (2) radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
- (ii) a radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by paragraph (a)(i);

- 
- 
- (iii) a radar SART or an AIS-SART, which —
    - (1) shall be so stowed that it can be easily utilised; and
    - (2) may be one of those required by paragraphs (b)(i) or (c)(i);
  - (iv) a receiver or receivers capable of receiving MSI and search and rescue related information throughout the entire voyage in which the ship is engaged;<sup>13</sup>
  - (v) an EPIRB<sup>14</sup> which shall be —
    - (1) installed in an easily accessible position;
    - (2) ready to be manually released and capable of being carried by one person into a survival craft;
    - (3) capable of floating free if the ship sinks and of being automatically activated when afloat; and
    - (4) capable of being activated manually; and
  - (vi) a radio installation capable of transmitting and receiving general radiocommunications operating on working frequencies in the band between 156 MHz and 174 MHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph (a)(i).
- (b) Every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage shall be provided with at least —
- (i) one radar SART or AIS-SART; and
  - (ii) two two-way VHF radiotelephone apparatuses.
- (c) Every passenger ship and every cargo ship of 500 gross tonnage and upwards shall be provided with at least —
- (i) one radar SART or AIS-SART on each side of the ship; and
  - (ii) three two-way VHF radiotelephone apparatuses.
- (d) The two-way VHF radiotelephone apparatuses required by paragraphs (b)(ii) and (c)(ii) may be portable or fitted in survival craft. The portable apparatus may be stored on the bridge.
- (e) The radar SARTs or AIS-SARTs required by paragraphs (b)(i) or (c)(i) shall be stowed in such locations that they can be rapidly placed in any survival craft other than a liferaft required by Regulation 31(a)(iv) of Chapter III. Alternatively, one radar SART or AIS-SART shall be stowed in each survival craft other than a liferaft required by Regulation 31(a)(iv) of Chapter III. On ships carrying at least two radar SARTs or AIS-SARTs and equipped with free-fall lifeboats, one of the radar SARTs or AIS-SARTs shall

be stowed in a free-fall lifeboat and the other shall be located in the immediate vicinity of the navigating bridge so that it can be utilised on board and ready for transfer to any of the other survival craft, other than a liferaft required by Regulation 31(a)(iv) of Chapter III.

(f) Every passenger ship shall be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 MHz and 123.1 MHz from the position from which the ship is normally navigated. These means may be portable.

<sup>13</sup> Refer to Guidance for the reception of maritime safety information and search and rescue related information as required in the Global Maritime Distress and Safety System (GMDSS) (MSC.1/Circ.1645).

<sup>14</sup> Refer to Search and rescue homing capability (resolution A.616(15)).

## Regulation 8

### *Radio equipment: Sea area A1*

(a) In addition to meeting the requirements of Regulation 7, every ship engaged on voyages in sea area A1 shall be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated, operating either —

- (i) through the satellite service on 406 MHz; or
- (ii) if the ship is engaged on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or
- (iii) on high frequency (HF) using DSC; or
- (iv) through a recognised mobile satellite service ship earth station.

(b) The requirement in paragraph (a)(i) may be fulfilled by installing —

- (i) the EPIRB required by Regulation 7(a)(v) close to the position from which the ship is normally navigated, but in a location whereby it can still float free of the ship in an emergency; or
- (ii) the EPIRB required by Regulation 7(a)(v) elsewhere on the ship, provided that this EPIRB has a means of remote activation which is installed near the position from which the ship is normally navigated; or
- (iii) a second EPIRB near the position from which the ship is normally navigated.

---

---

Regulation 9*Radio equipment: Sea area A2*

(a) In addition to meeting the requirements of Regulation 7, every ship engaged on voyages within sea area A2 shall be provided with —

- (i) an MF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on the frequencies —
  - (1) 2,187.5 kHz using DSC; and
  - (2) 2,182 kHz using radiotelephony;
- (ii) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from, or combined with, that required by paragraph (a)(i); and
- (iii) a secondary means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either —
  - (1) through the satellite service on 406 MHz; or
  - (2) on HF using DSC; or
  - (3) through a recognised mobile satellite service ship earth station.

(b) It shall be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (a)(i) and (a)(iii) from the position from which the ship is normally navigated.

(c) The requirement in paragraph (a)(iii)(1) may be fulfilled by installing —

- (i) the EPIRB required by Regulation 7(a)(v) close to the position from which the ship is normally navigated, but in a location whereby it can still float free of the ship in an emergency; or
- (ii) the EPIRB required by Regulation 7(a)(v) elsewhere on the ship, provided that this EPIRB has a means of remote activation which is installed near the position from which the ship is normally navigated; or
- (iii) a second EPIRB near the position from which the ship is normally navigated.

(d) The ship shall, in addition, be capable of transmitting and receiving general radiocommunications by either —

- (i) a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and

- 
- 
- 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph (a)(i); or
- (ii) a recognised mobile satellite service ship earth station.

Regulation 10

*Radio equipment: Sea area A3*

(a) In addition to meeting the requirements of Regulation 7, every ship engaged on voyages within sea area A3 shall be provided with —

- (i) a recognised mobile satellite service ship earth station capable of —
- (1) transmitting and receiving distress, urgency and safety communications;
  - (2) initiating and receiving distress priority calls; and
  - (3) maintaining watch for shore-to-ship distress alert relays, including those directed to specifically defined geographical areas;
- (ii) an MF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on the frequencies —
- (1) 2,187.5 kHz using DSC; and
  - (2) 2,182 kHz using radiotelephony;
- (iii) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from, or combined with, that required by paragraph (a)(ii); and
- (iv) a secondary means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either —
- (1) through the satellite service on 406 MHz; or
  - (2) on HF using DSC; or
  - (3) through any recognised mobile satellite service on an additional ship earth station.

(b) It shall be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (a)(i), (a)(ii) and (a)(iv) from the position from which the ship is normally navigated.

(c) The requirement in paragraph (a)(iv)(1) may be fulfilled by installing —

- (i) the EPIRB required by Regulation 7(a)(v) close to the position from which the ship is normally navigated, but in a location whereby it can still float free of the ship in an emergency; or
  - (ii) the EPIRB required by Regulation 7(a)(v) elsewhere on the ship, provided that this EPIRB has a means of remote activation which is installed near the position from which the ship is normally navigated; or
  - (iii) a second EPIRB near the position from which the ship is normally navigated.
- (d) The ship shall, in addition, be capable of transmitting and receiving general radiocommunications by either —
- (i) a recognised mobile satellite service ship earth station; or
  - (ii) a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz.
- (e) The requirements in paragraphs (d)(i) and (d)(ii) may be fulfilled by the addition of this capability in the equipment required by paragraph (a)(i) or (a)(ii), respectively.

### Regulation 11

#### *Radio equipment: Sea area A4*

- (a) In addition to meeting the requirements of Regulation 7, every ship engaged on voyages within sea area A4 shall be provided with —
- (i) an MF/HF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on all distress, urgency and safety frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz —
    - (1) using DSC; and
    - (2) using radiotelephony;
  - (ii) equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz; it shall be possible at any time to select any of these DSC frequencies for distress, urgency and safety communications purposes. This equipment may be separate from, or combined with, the equipment required by paragraph (a)(i); and

- (iii) a secondary means of initiating the transmission of ship-to-shore distress alerts through the satellite service on 406 MHz.
- (b) The ship shall, in addition, be capable of transmitting and receiving general radiocommunications by a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph (a)(i).
- (c) It shall be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (a)(i) and (a)(iii) from the position from which the ship is normally navigated.
- (d) The requirement in paragraph (a)(iii) may be fulfilled by installing —
  - (i) the EPIRB required by Regulation 7(a)(v) close to the position from which the ship is normally navigated, but in a location whereby it can still float free of the ship in an emergency; or
  - (ii) the EPIRB required by Regulation 7(a)(v) elsewhere on the ship, provided that this EPIRB has a means of remote activation which is installed near the position from which the ship is normally navigated; or
- (iii) a second EPIRB near the position from which the ship is normally navigated.

## Regulation 12

### *Watches*

- (a) Every ship, while at sea, shall maintain a continuous radio watch for distress, urgency and safety communications purposes —
  - (i) on VHF DSC channel 70;
  - (ii) on DSC frequency 2,187.5 kHz, if the ship, in accordance with the requirements of Regulation 9(a)(i) or 10(a)(ii), is fitted with an MF radio installation;
  - (iii) on DSC frequencies 2,187.5 kHz and 8,414.5 kHz and also on at least one of the DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz, appropriate to the time of day and the geographical position of the ship, if the ship, in accordance with the requirements of Regulation 11(a)(ii), is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver; and

- (iv) for satellite shore-to-ship distress alert relays, if the ship, in accordance with the requirements of Regulation 10(a)(i), is fitted with a recognised mobile satellite service ship earth station.
- (b) Every ship, while at sea, shall maintain a radio watch for broadcasts of MSI and search and rescue related information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the ship is navigating.
- (c) Every ship, while at sea, shall maintain, when practicable, a continuous listening watch, which shall be kept at the position from which the ship is normally navigated, on —
  - (i) VHF channel 16; and
  - (ii) other appropriate frequencies for urgency and safety communications for the area in which the ship is navigating.

### Regulation 13

#### *Sources of energy*

- (a) While the ship is at sea, a supply of electrical energy shall be available at all times sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.
- (b) A reserve source or sources of energy shall be provided on every ship, to supply radio installations, for the purpose of conducting distress, urgency and safety communications, in the event of failure of the ship's main and emergency sources of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by Regulation 7(a)(i) and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by Regulation 9(a)(i) or 10(a)(ii), the MF/HF radio installation required by Regulation 11(a)(i), or the ship earth station required by Regulation 10(a)(i) and any of the additional loads mentioned in paragraphs (d), (e) and (h) for a period of at least —
  - (i) one hour on ships provided with an emergency source of electrical power, if such source of power complies fully with all relevant provisions of Regulation 42 or 43 of Chapter II-1, including the supply of such power to the radio installations; and
  - (ii) six hours on ships not provided with an emergency source of electrical power complying fully with all relevant provisions of Regulation 42 or 43 of Chapter II-1, including the supply of such power to the radio installations.<sup>15</sup>



---

The reserve source or sources of energy need not supply independent HF and MF radio installations at the same time.

(c) The reserve source or sources of energy shall be independent of the propelling power of the ship and the ship's electrical system.

(d) Where, in addition to the VHF radio installation, two or more of the other radio installations referred to in paragraph (b) can be connected to the reserve source or sources of energy, they shall be capable of simultaneously supplying, for the period specified, as appropriate, in paragraph (b)(i) or (b)(ii), the VHF radio installation and —

- (i) all other radio installations which can be connected to the reserve source or sources of energy at the same time; or
- (ii) whichever of the other radio installations will consume the most power, if only one of the other radio installations can be connected to the reserve source or sources of energy at the same time as the VHF radio installation.

(e) The reserve source or sources of energy may be used to supply the electrical lighting required by Regulation 6(b)(iv).

(f) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries —

- (i) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and
- (ii) the capacity of the battery or batteries shall be checked, using an appropriate method,<sup>16</sup> at intervals not exceeding 12 months, when the ship is not at sea.

(g) The siting and installation of accumulator batteries which provide a reserve source of energy shall be such as to ensure —

- (i) the highest degree of service;
- (ii) a reasonable lifetime;
- (iii) reasonable safety;
- (iv) that battery temperatures remain within the manufacturer's specifications whether under charge or idle; and
- (v) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

(h) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this Chapter, including the

navigation receiver referred to in Regulation 18, is needed to ensure its proper performance, means shall be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.

- <sup>15</sup> For guidance, the following formula is recommended for determining the electrical load to be supplied by the reserve source of energy for each radio installation required for distress conditions: 1/2 of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads.
- <sup>16</sup> One method of checking the capacity of an accumulator battery is to fully discharge and recharge the battery, using normal operating current and period. Assessment of the charge condition can be made at any time, but it should be done without significant discharge of the battery when the ship is at sea.

## Regulation 14

### *Performance standards*

All equipment to which this Chapter applies shall be of a type approved by the Director. Such equipment shall conform to appropriate performance standards not inferior to those adopted by the Organisation.<sup>17</sup>

- <sup>17</sup> Refer to the following resolutions adopted by the Organisation:

#### General requirements

- (a) General requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids (resolution A.694(17));
- (b) Performance standards for the presentation of navigation-related information on shipborne navigational displays (resolution MSC.191(79), as amended);
- (c) Performance standards for bridge alert management (resolution MSC.302(87));

#### VHF equipment

- (d) Performance standards for shipborne VHF radio installations capable of voice communication and digital selective calling (resolution MSC.511(105));
- (e) Performance standards for survival craft portable two-way VHF radiotelephone apparatus (resolution MSC.515(105));
- (f) Recommendation on Performance standards for on-scene (aeronautical) portable two-way VHF radiotelephone apparatus (annex 1 to resolution MSC.80(70), as amended);

---

---

MF and HF equipment

- (g) System performance standard for the promulgation and coordination of maritime safety information using high-frequency narrow-band direct-printing (resolution MSC.507(105));
- (h) Performance standards for shipborne MF and MF/HF radio installations capable of voice communication, digital selective calling and reception of maritime safety information and search and rescue related information (resolution MSC.512(105));
- (i) Performance standards for the reception of maritime safety information and search and rescue related information by MF (NAVTEX) and HF (resolution MSC.508(105));

Ship earth stations and enhanced group call (EGC) equipment

- (j) Performance standards for Inmarsat-C ship earth stations capable of transmitting and receiving direct-printing communications (resolution MSC.513(105));
- (k) Revised performance standards for enhanced group call (EGC) equipment (resolution MSC.306(87), as amended);
- (l) Performance standards for a ship earth station for use in the GMDSS (resolution MSC.434(98));

Integrated radiocommunication systems

- (m) Performance standards for a shipborne integrated communication system (ICS) when used in the Global Maritime Distress and Safety System (GMDSS) (resolution MSC.517(105));

Emergency position-indicating radio beacons

- (n) Performance standards for float-free release and activation arrangements for emergency radio equipment (resolution A.662(16));
- (o) Performance standards for float-free emergency position-indicating radio beacons (EPIRBs) operating on 406 MHz (resolution MSC.471(101));

Search and rescue transmitters and transponders

- (p) Performance standards for search and rescue radar transponders (resolution MSC.510(105)); and
- (q) Performance standards for survival craft AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations (resolution MSC.246(83)).

## Regulation 15

### *Maintenance requirements*

- (a) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

(b) Where applicable, equipment shall be so constructed and installed that it is readily accessible for inspection and onboard maintenance purposes.

(c) Adequate information shall be provided to enable the equipment to be properly operated and maintained, taking into account the recommendations of the Organisation.<sup>18</sup>

(d) Adequate tools and spares shall be provided to enable the equipment to be maintained.

(e) The Director shall ensure that radio equipment required by this Chapter is maintained to provide the availability of the functional requirements specified in Regulation 4 and to meet the recommended performance standards of such equipment.

(f) On ships engaged on voyages in sea areas A1 or A2, the availability shall be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these, as may be approved by the Director.

(g) On ships engaged on voyages in sea areas A3 or A4, the availability shall be ensured by using a combination of at least two methods such as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, as may be approved by the Director.

(h) While all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in Regulation 4, malfunction of the equipment for providing the general radiocommunications required by Regulation 4(a)(ii) shall not be considered as making a ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress, urgency and safety functions.

(i) EPIRBs shall be —

(i) annually tested, either on board the ship<sup>19</sup> or at an approved testing station, for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals as specified below —

(1) on passenger ships, within three months before the expiry date of the Passenger Ship Safety Certificate; and

(2) on cargo ships, within three months before the expiry date, or within three months before or after the anniversary date, of the Cargo Ship Safety Radio Certificate; and

(ii) subject to maintenance at intervals not exceeding five years, to be performed at an approved shore-based maintenance facility.<sup>20</sup>

- <sup>18</sup> Refer to General requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids (resolution A.694(17)), General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipment (resolution A.813(19)), and Clarifications of certain requirements in IMO performance standards for GMDSS equipment (MSC/Circ.862).
- <sup>19</sup> Refer to Guidelines on annual testing of emergency position-indicating radio beacons (EPIRBs) (MSC.1/Circ.1040/Rev.2) and Guidelines for the avoidance of false distress alerts (resolution MSC.514(105)).
- <sup>20</sup> Refer to Guidelines for shore-based maintenance of emergency position-indicating radio beacons (EPIRBs) (MSC.1/Circ.1039/Rev.1).

## Regulation 16

### *Radio personnel*

(a) Every ship shall carry personnel qualified for distress, urgency and safety communications purposes to the satisfaction of the Director.<sup>21</sup> The personnel shall be holders of the appropriate certificates specified in the Radio Regulations; one of the personnel shall be designated as having primary responsibility for communications during distress incidents.

(b) In passenger ships, at least one person qualified in accordance with paragraph (a) shall be assigned to perform only communications duties during distress incidents.

<sup>21</sup> Refer to the STCW Code, Chapter IV, section B-IV/2.

## Regulation 17

### *Radio records*

A record shall be kept on board, to the satisfaction of the Director and as required by the Radio Regulations, of all incidents connected with the radiocommunication services which appear to be of importance to safety of life at sea.

## Regulation 18

### *Position-updating*

(a) All two-way communication equipment carried on board a ship to which this Chapter applies which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver.<sup>22</sup>

(b) In case of malfunction of the internal or external navigation receiver, the ship's position and the time at which the position was determined shall be

manually updated at intervals not exceeding four hours, while the ship is under way, so that it is always ready for transmission by the equipment.

<sup>22</sup> Requirements for automatic update of the ship's position are given in resolutions MSC.511(105), MSC.512(105) and MSC.513(105).

”.

## **Amendment of Regulation 19-1 of Chapter V**

**22.** In the principal Regulations, in Chapter V, in Regulation 19-1(d), replace sub-paragraphs (i) and (ii) with —

“(d) (i) Ships<sup>1</sup> shall be fitted with a system to automatically transmit the information specified in paragraph (e) as follows:

- (1) ships constructed on or after 31 December 2008;
- (2) ships constructed before 31 December 2008 and certified for operations —
  - (A) in sea areas A1 and A2, as defined in Regulations 2(a)(xv) and 2(a)(xvi) of Chapter IV; or
  - (B) in sea areas A1, A2 and A3, as defined in Regulations 2(a)(xv), 2(a)(xvi) and 2(a)(xvii) of Chapter IV, not later than the first survey<sup>2</sup> of the radio installation after 31 December 2008;
  - (C) ships constructed before 31 December 2008 and certified for operations in sea areas A1, A2, A3 and A4, as defined in Regulations 2(a)(xv), 2(a)(xvi), 2(a)(xvii) and 2(a)(xviii) of Chapter IV, not later than the first survey<sup>2</sup> of the radio installation after 1 July 2009. However, these ships shall comply with the provisions of sub-paragraph (B) above while they operate within sea areas A1, A2 and A3.

(d) (ii) Ships, irrespective of the date of construction, fitted with an automatic identification system (AIS), as defined in Regulation 19(b)(iv), and operated exclusively within sea area A1, as defined in Regulation 2(a)(xv) of Chapter IV, shall not be required to comply with the provisions of this Regulation.

<sup>1</sup> Refer to Guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information (MSC.1/Circ.1307).

<sup>2</sup> Refer to Unified interpretation of the term “first survey” referred to in SOLAS Regulation (MSC.1/Circ.1290).

”.

## Amendment of First Schedule

23. In the principal Regulations, in the First Schedule —

- (a) replace the Form of Safety Certificate for Passenger Ships with —

### ***“FORM OF SAFETY CERTIFICATE FOR PASSENGER SHIPS***

#### **PASSENGER SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Passenger Ship Safety (Form P)

(Official seal)

REPUBLIC OF SINGAPORE

for *an/a short*<sup>1</sup> international voyage

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, as modified by the Protocol of 1988 relating thereto

under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
(*person or organisation authorised*)

#### ***Particulars of ship***<sup>2</sup>

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Sea areas in which ship is certified to operate (Regulation IV/2)<sup>3</sup>

.....

IMO Number<sup>4</sup> .....

Date of build:

Date of building contract .....

Date on which keel was laid or ship was at similar stage of  
construction .....

Date of delivery .....

Date on which work for a conversion or an alteration or a modification of a major character was commenced (where applicable) .....

All applicable dates shall be completed.

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of Regulation I/7 of the Convention.
- 2 That the survey showed that:
  - 2.1 the ship complied with the requirements of the Convention as regards:
    - .1 the structure, main and auxiliary machinery, boilers and other pressure vessels;
    - .2 the watertight subdivision arrangements and details;
    - .3 the following subdivision load lines:

Subdivision load lines assigned and marked on the ship's side amidships (Regulation II-1/18) <sup>5</sup>	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
P1	.....	.....
P2	.....	.....
P3	.....	.....

- 2.2 the ship complied with Part G of Chapter II-1 of the Convention using ..... as fuel/N.A.<sup>1</sup>
- 2.3 the ship complied with the requirements of the Convention as regards structural fire protection, fire safety systems and appliances and fire control plans;
- 2.4 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
- 2.5 the ship was provided with a line-throwing appliance in accordance with the requirements of the Convention;
- 2.6 the ship complied with the requirements of the Convention as regards radio installations;



- 2.7 the provision and functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;
- 2.8 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;
- 2.9 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
- 2.10 in all other respects the ship complied with the relevant requirements of the Convention;
- 2.11 the ship was/was not<sup>1</sup> subjected to an alternative design and arrangements in pursuance of Regulation(s) II-1/55 / II-2/17 / III/38<sup>1</sup> of the Convention;
- 2.12 a Document of approval of alternative design and arrangements for machinery and electrical installations/fire protection/life-saving appliances and arrangements<sup>1</sup> is/is not<sup>1</sup> appended to this Certificate.
- 3 That an Exemption Certificate has/has not<sup>1</sup> been issued.

***This certificate is valid until*** .....

Completion date of the survey on which this certificate is based: .....  
(dd/mm/yyyy)

Issued at .....  
(Place of issue of certificate)

.....  
(Date of issue)

.....  
(Signature of authorised official  
issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

---



---

***Endorsement where the renewal survey has been completed and Regulation I/14(d) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(d) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Regulation I/14(e) or I/14(f) applies***

This certificate shall, in accordance with Regulation I/14(e) / I/14(f)<sup>1</sup> of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

---

<sup>1</sup> Delete as appropriate.

<sup>2</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>3</sup> For a ship certified to operate in sea area A3, indicate the recognised mobile satellite service in brackets.

<sup>4</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>5</sup> For ships constructed before 1 January 2009, the applicable subdivision notation “C.1, C.2 and C.3” should be used.”;

(b) replace the Form of Safety Equipment Certificate for Cargo Ships with —

---



---

***“FORM OF SAFETY EQUIPMENT CERTIFICATE FOR CARGO SHIPS***

**CARGO SHIP SAFETY EQUIPMENT CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Cargo Ship Safety (Form E)

*(Official seal)*

REPUBLIC OF SINGAPORE

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, as modified by the Protocol of 1988 relating thereto  
under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
*(person or organisation authorised)*

***Particulars of ship***<sup>1</sup>

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Deadweight of ship (metric tons)<sup>2</sup> .....

Length of ship (Regulation III/3.12) .....

IMO Number<sup>3</sup> .....

Type of ship<sup>4</sup>

Bulk carrier

Oil tanker

Chemical tanker

Gas carrier

Cargo ship other than any of the above

Date on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced .....

---

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of Regulation I/8 of the Convention.
- 2 That the survey showed that:
  - 2.1 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans
  - 2.2 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
  - 2.3 the ship was provided with a line-throwing appliance in accordance with the requirements of the Convention;
  - 2.4 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;
  - 2.5 the ship was provided with lights, shapes and means of making sound signals and distress signals in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
  - 2.6 in all other respects the ship complied with the relevant requirements of the Convention;
  - 2.7 the ship was/was not<sup>4</sup> subjected to an alternative design and arrangements in pursuance of Regulation(s) II-2/17 / III/38<sup>4</sup> of the Convention;
  - 2.8 a Document of approval of alternative design and arrangements for fire protection/life-saving appliances and arrangements<sup>4</sup> is/is not<sup>4</sup> appended to this Certificate.
- 3 That the ship operates in accordance with Regulation III/26.1.1.1<sup>5</sup> within the limits of the trade area .....
- 4 That an Exemption Certificate has/has not<sup>4</sup> been issued.

***This certificate is valid until*** .....<sup>6</sup>subject to the annual and periodical surveys in accordance with Regulation I/8 of the Convention.

Completion date of the survey on which this certificate is based: .....  
(dd/mm/yyyy)

Issued at .....  
(Place of issue of certificate)

.....  
(Date of issue)

.....  
(Signature of authorised official  
issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

***Endorsement for annual and periodical surveys***

THIS IS TO CERTIFY that, at a survey required by Regulation I/8 of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual survey: Signed: .....  
(Signature of authorised official)  
Place: .....  
Date: .....  
(Seal or stamp of the authority,  
as appropriate)

Annual/Periodical<sup>4</sup> survey: Signed: .....  
(Signature of authorised official)  
Place: .....  
Date: .....  
(Seal or stamp of the authority,  
as appropriate)

---

---

Annual/Periodical<sup>4</sup> survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

Annual survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Annual/periodical survey in accordance with Regulation I/14(h)(iii)***

THIS IS TO CERTIFY that, at an annual/periodical<sup>4</sup> survey in accordance with Regulation I/14(h)(iii) of the Convention, this ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as appropriate)

---

---

***Endorsement to extend the certificate if valid for less than 5 years where Regulation I/14(c) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(c) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as  
appropriate)

***Endorsement where the renewal survey has been completed and Regulation I/14(d) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(d) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as  
appropriate)

---

---

***Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Regulation I/14(e) or I/14(f) applies***

The certificate shall, in accordance with Regulation I/14(e) / I/14(f)<sup>4</sup> of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as  
appropriate)

***Endorsement for advancement of anniversary date where Regulation I/14(h) applies***

In accordance with Regulation I/14(h) of the Convention, the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority, as  
appropriate)



---

In accordance with Regulation I/14(*h*) of the Convention, the new anniversary date is .....

Signed: .....

*(Signature of authorised official)*

Place: .....

Date: .....

*(Seal or stamp of the authority, as appropriate)*

---

<sup>1</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>2</sup> For oil tankers, chemical tankers and gas carriers only.

<sup>3</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>4</sup> Delete as appropriate.

<sup>5</sup> Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1 July 1986, but before 1 July 1998 in the case of self-righting partially enclosed lifeboat(s) on board.

<sup>6</sup> Insert the date of expiry as specified by the Director in accordance with Regulation I/14(*a*) of the Convention. The day and the month of this date correspond to the anniversary date as defined in Regulation I/2(*n*) of the Convention, unless amended in accordance with Regulation I/14(*h*).”;

(*c*) replace the Form of Safety Radio Certificate for Cargo Ships with —

***“FORM OF SAFETY RADIO CERTIFICATE FOR CARGO SHIPS*****CARGO SHIP SAFETY RADIO CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Cargo Ship  
Safety Radio (Form R)

(Official seal)

REPUBLIC OF SINGAPORE

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, as modified by the Protocol of 1988 relating thereto  
under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
(person or organisation authorised)

***Particulars of ship<sup>1</sup>***

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Sea areas in which ship is certified to operate (Regulation IV/2)<sup>2</sup>  
.....

IMO Number<sup>3</sup> .....

Date on which keel was laid or ship was at a similar stage of construction or,  
where applicable, date on which work for a conversion or an alteration or a  
modification of a major character was commenced .....

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of  
Regulation I/9 of the Convention.
- 2 That the survey showed that:
  - 2.1 the ship complied with the requirements of the Convention as regards radio  
installations;

2.2 the provision and functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention.

3 That an Exemption Certificate has/has not<sup>4</sup> been issued.

***This certificate is valid until*** .....<sup>5</sup>  
 subject to the periodical surveys in accordance with Regulation I/9 of the Convention.

Completion date of the survey on which this certificate is based: .....  
 (dd/mm/yyyy)

Issued at .....  
 (Place of issue of certificate)

.....  
 (Date of issue)

.....  
 (Signature of authorised official  
 issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

### ***Endorsement for periodical surveys***

THIS IS TO CERTIFY that, at a survey required by Regulation I/9 of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Periodical survey: Signed: .....  
 (Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
 as appropriate)

Periodical survey: Signed: .....  
 (Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
 as appropriate)

---

---

Periodical survey: Signed: .....  
(Signature of authorised official)  
Place: .....  
Date: .....  
(Seal or stamp of the authority,  
as appropriate)

Periodical survey: Signed: .....  
(Signature of authorised official)  
Place: .....  
Date: .....  
(Seal or stamp of the authority,  
as appropriate)

***Periodical survey in accordance with Regulation I/14(h)(iii)***

THIS IS TO CERTIFY that, at a periodical survey in accordance with Regulation I/14(h)(iii) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)  
Place: .....  
Date: .....  
(Seal or stamp of the authority,  
as appropriate)

---

---

***Endorsement to extend the certificate if valid for less than 5 years where Regulation I/14(c) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(c) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....  
(Seal or stamp of the authority,  
as appropriate)

***Endorsement where the renewal survey has been completed and Regulation I/14(d) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(d) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....  
(Seal or stamp of the authority,  
as appropriate)

---

---

***Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Regulation I/14(e) or I/14(f) applies***

The certificate shall, in accordance with Regulation I/14(e) / I/14(f)<sup>4</sup> of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement for advancement of anniversary date where Regulation I/14(h) applies***

In accordance with Regulation I/14(h) of the Convention, the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

---

In accordance with Regulation I/14(*h*) of the Convention, the new anniversary date is .....

Signed: .....  
*(Signature of authorised official)*

Place: .....

Date: .....

*(Seal or stamp of the authority,  
as appropriate)*

---

<sup>1</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>2</sup> For a ship certified to operate in sea area A3, indicate the recognised mobile satellite service in brackets.

<sup>3</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>4</sup> Delete as appropriate.

<sup>5</sup> Insert the date of expiry as specified by the Director in accordance with Regulation I/14(*a*) of the Convention. The day and the month of this date correspond to the anniversary date as defined in Regulation I/2(*n*) of the Convention, unless amended in accordance with Regulation I/14(*h*).”;

(*d*) replace the Form of Safety Certificate for Cargo Ships  
with —

---



---

***“FORM OF SAFETY CERTIFICATE FOR CARGO SHIPS***

**CARGO SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Cargo Ship Safety (Form C)

*(Official seal)*

REPUBLIC OF SINGAPORE

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, as modified by the Protocol of 1988 relating thereto  
under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
*(person or organisation authorised)*

***Particulars of ship***<sup>1</sup>

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Deadweight of ship (metric tons)<sup>2</sup> .....

Length of ship (Regulation III/3.12) .....

Sea areas in which ship is certified to operate (Regulation IV/2)<sup>3</sup>  
.....

IMO Number<sup>4</sup> .....

Type of ship<sup>5</sup>

Bulk carrier

Oil tanker

Chemical tanker

Gas carrier

Cargo ship other than any of the above



Date of build:

Date of building contract .....

Date on which keel was laid or ship was at similar stage of construction

.....

Date of delivery .....

Date on which work for a conversion or an alteration or a modification of a major character was commenced (where applicable) .....

All applicable dates shall be completed.

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of Regulations I/8, I/9 and I/10 of the Convention.
- 2 That the survey showed that:
  - 2.1 the condition of the structure, machinery and equipment as defined in Regulation I/10 was satisfactory and the ship complied with the relevant requirements of Chapter II-1 and Chapter II-2 of the Convention (other than those relating to fire safety systems and appliances and fire control plans);
  - 2.2 the ship complied with part G of Chapter II-1 of the Convention using ..... as fuel/N.A<sup>5</sup>;
  - 2.3 the last two inspections of the outside of the ship's bottom took place on ..... and ..... (dates);
  - 2.4 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans;
  - 2.5 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
  - 2.6 the ship was provided with a line-throwing appliance in accordance with the requirements of the Convention;
  - 2.7 the ship complied with the requirements of the Convention as regards radio installations;
  - 2.8 the provision and functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;
  - 2.9 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

- 2.10 the ship was provided with lights, shapes, means of making sound signals and distress signals in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
- 2.11 in all other respects the ship complied with the relevant requirements of the Convention;
- 2.12 the ship was/was not<sup>5</sup> subjected to an alternative design and arrangements in pursuance of Regulation(s) II-1/55 / II-2/17 / III/38<sup>5</sup> of the Convention;
- 2.13 a Document of approval of alternative design and arrangements for machinery and electrical installations/fire protection/life-saving appliances and arrangements<sup>5</sup> is/is not<sup>5</sup> appended to this Certificate.
- 3 That the ship operates in accordance with Regulation III/26.1.1.1<sup>6</sup> within the limits of the trade area .....
- 4 That an Exemption Certificate has/has not<sup>5</sup> been issued.

***This certificate is valid until*** .....<sup>7</sup>  
 subject to the annual, intermediate and periodical surveys and inspections of the outside of the ship's bottom in accordance with Regulations I/8, I/9 and I/10 of the Convention.

Completion date of the survey on which this certificate is based: .....  
 (dd/mm/yyyy)

Issued at .....  
 (Place of issue of certificate)

.....  
 (Date of issue)

.....  
 (Signature of authorised official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)



***Annual/intermediate survey in accordance with Regulation I/14(h)(iii)***

THIS IS TO CERTIFY that, at an annual/intermediate<sup>5</sup> survey in accordance with Regulations I/10 and I/14(h)(iii) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement for inspections of the outside of the ship's bottom<sup>8</sup>***

THIS IS TO CERTIFY that, at an inspection required by Regulation I/10 of the Convention, the ship was found to comply with the relevant requirements of the Convention.

First inspection:

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

Second inspection:

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

THIS IS TO CERTIFY that, at a survey required by Regulation I/8 of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Annual survey: Signed: .....  
*(Signature of authorised official)*  
 Place: .....  
 Date: .....  
*(Seal or stamp of the authority,  
 as appropriate)*

***Annual/periodical survey in accordance with Regulation I/14(h)(iii)***

THIS IS TO CERTIFY that, at an annual/periodical<sup>5</sup> survey in accordance with Regulations I/8 and I/14(h)(iii) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement for periodical surveys relating to radio installations referred to in paragraphs 2.6 and 2.7 of this certificate***

THIS IS TO CERTIFY that, at a survey required by Regulation I/9 of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Periodical survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

Periodical survey: Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

---

Periodical survey: Signed: .....  
*(Signature of authorised official)*  
 Place: .....  
 Date: .....  
*(Seal or stamp of the authority,  
 as appropriate)*

Periodical survey: Signed: .....  
*(Signature of authorised official)*  
 Place: .....  
 Date: .....  
*(Seal or stamp of the authority,  
 as appropriate)*

***Periodical survey in accordance with Regulation I/14(h)(iii)***

THIS IS TO CERTIFY that, at a periodical survey in accordance with Regulations I/9 and I/14(h)(iii) of the Convention, the ship was found to comply with the relevant requirements of the Convention.

Signed: .....  
*(Signature of authorised official)*  
 Place: .....  
 Date: .....  
*(Seal or stamp of the authority,  
 as appropriate)*

---

---

***Endorsement to extend the certificate if valid for less than 5 years where Regulation I/14(c) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(c) of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement where the renewal survey has been completed and Regulation I/14(d) applies***

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with Regulation I/14(d) of the Convention, be accepted as valid until .....

Annual survey:

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)



---

***Endorsement to extend the validity of the certificate until reaching the port of survey or for a period of grace where Regulation I/14(e) or I/14(f) applies***

The certificate shall, in accordance with Regulation I/14(e) / I/14(f)<sup>5</sup> of the Convention, be accepted as valid until .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

***Endorsement for advancement of anniversary date where Regulation I/14(h) applies***

In accordance with Regulation I/14(h) of the Convention, the new anniversary date is .....

Signed: .....  
(Signature of authorised official)

Place: .....

Date: .....

(Seal or stamp of the authority,  
as appropriate)

In accordance with Regulation I/14(*h*) of the Convention, the new anniversary date is .....

Signed: .....  
(*Signature of authorised official*)

Place: .....

Date: .....

(*Seal or stamp of the authority,  
as appropriate*)

<sup>1</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>2</sup> For oil tankers, chemical tankers and gas carriers only.

<sup>3</sup> For a ship certified to operate in sea area A3, indicate the recognised mobile satellite service in brackets.

<sup>4</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>5</sup> Delete as appropriate.

<sup>6</sup> Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1 July 1986, but before 1 July 1998 in the case of self-righting partially enclosed lifeboat(s) on board.

<sup>7</sup> Insert the date of expiry as specified by the Director in accordance with Regulation I/14(*a*) of the Convention. The day and the month of this date correspond to the anniversary date as defined in Regulation I/2(*n*) of the Convention, unless amended in accordance with Regulation I/14(*h*).

<sup>8</sup> Provision may be made for additional inspections.”; and

(*e*) replace the Form of Nuclear Passenger Ship Safety Certificate and the Form of Nuclear Cargo Ship Safety Certificate with —

---



---

***“FORM OF NUCLEAR PASSENGER SHIP SAFETY CERTIFICATE***

**NUCLEAR PASSENGER SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Passenger Ship Safety (Form P)

*(Official seal)*

REPUBLIC OF SINGAPORE

for *an/a short*<sup>1</sup> international voyage

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF  
LIFE AT SEA, 1974, as amended

under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
*(person or organisation authorised)*

***Particulars of ship***<sup>2</sup>

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Sea areas in which ship is certified to operate (Regulation IV/2)<sup>3</sup>  
.....

IMO Number<sup>4</sup> .....

Date of build:

Date of building contract .....

Date on which keel was laid or ship was at similar stage of  
construction .....

Date of delivery .....

Date on which work for a conversion or an alteration or modification of a  
major character was commenced (where applicable) .....

All applicable dates shall be completed.

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of Regulation VIII/9 of the Convention.
- 2 That the ship, being a nuclear ship, complied with all the requirements of Chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship; and that:
  - 2.1 the ship complied with the requirements of the Convention as regards:
    - .1 the structure, main and auxiliary machinery, boilers and other pressure vessels, including the nuclear propulsion plant and the collision protective structure;
    - .2 the watertight subdivision arrangements and details;
    - .3 the following subdivision load lines:

Subdivision load lines assigned and marked on the ship's side amidships (Regulation II-1/18) <sup>5</sup>	Freeboard	To apply when the spaces in which passengers are carried include the following alternative spaces
P1	.....	.....
P2	.....	.....
P3	.....	.....

- 2.2 the ship complied with the requirements of the Convention as regards structural fire protection, fire safety systems and appliances and fire control plans;
- 2.3 the ship complied with the requirements of the Convention as regards radiation protection systems and equipment;
- 2.4 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
- 2.5 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;
- 2.6 the ship complied with the requirements of the Convention as regards radio installations;

- 2.7 the provision and functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;
- 2.8 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;
- 2.9 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
- 2.10 all other respects the ship complied with the relevant requirements of the Convention;
- 2.11 the ship was/was not<sup>1</sup> subjected to an alternative design and arrangements in pursuance of Regulation(s) II-1/55 / II-2/17 / III/38<sup>1</sup> of the Convention;
- 2.12 a Document of approval of alternative design and arrangements for machinery and electrical installations/fire protection/life-saving appliances and arrangements<sup>1</sup> is/is not<sup>1</sup> appended to this Certificate.

***This certificate is valid until*** .....

Completion date of the survey on which this certificate is based: .....  
(dd/mm/yyyy)

Issued at .....  
(Place of issue of certificate)

.....  
(Date of issue)

.....  
(Signature of authorised official  
issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

<sup>1</sup> Delete as appropriate.

<sup>2</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>3</sup> For a ship certified to operate in sea area A3, indicate the recognised mobile satellite service in brackets.

<sup>4</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>5</sup> For ships constructed before 1 January 2009, the applicable subdivision notation "C.1, C.2 and C.3" should be used.

---



---

***FORM OF NUCLEAR CARGO SHIP SAFETY CERTIFICATE***

**NUCLEAR CARGO SHIP SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Cargo Ship Safety (Form C)

*(Official seal)*

REPUBLIC OF SINGAPORE

Issued under the provisions of the  
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE  
AT SEA, 1974, as amended

under the authority of the Government of  
the Republic of Singapore

by \_\_\_\_\_  
*(person or organisation authorised)*

***Particulars of ship***<sup>1</sup>

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Deadweight of ship (metric tons)<sup>2</sup> .....

Length of ship (Regulation III/3.12) .....

Sea areas in which ship is certified to operate (Regulation IV/2)<sup>3</sup>  
.....

IMO Number<sup>4</sup> .....

Type of ship<sup>5</sup>

Bulk carrier

Oil tanker

Chemical tanker

Gas carrier

Cargo ship other than any of the above

Date of build:

Date of building contract .....

Date on which keel was laid or ship was at similar stage of construction .....

Date of delivery .....

Date on which work for a conversion or an alteration or modification of a major character was commenced (where applicable) .....

All applicable dates shall be completed.

***THIS IS TO CERTIFY:***

- 1 That the ship has been surveyed in accordance with the requirements of Regulation VIII/9 of the Convention.
- 2 That the ship, being a nuclear ship, complied with all the requirements of Chapter VIII of the Convention and conformed to the Safety Assessment approved for the ship; and that:
  - 2.1 the condition of the structure, machinery and equipment as defined in Regulation I/10 (as applicable to comply with Regulation VIII/9), including the nuclear propulsion plant and the collision protective structure, was satisfactory and the ship complied with the relevant requirements of Chapter II-1 and Chapter II-2 of the Convention (other than those relating to fire safety systems and appliances and fire control plans);
  - 2.2 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans;
  - 2.3 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;
  - 2.4 the ship was provided with a line-throwing appliance and radio installations used in life-saving appliances in accordance with the requirements of the Convention;
  - 2.5 the ship complied with the requirements of the Convention as regards radio installations;
  - 2.6 the provision and functioning of the radio installations used in life-saving appliances complied with the requirements of the Convention;
  - 2.7 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

- 2.8 the ship was provided with lights, shapes, means of making sound signals and distress signals, in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;
- 2.9 in all other respects the ship complied with the relevant requirements of the regulations, so far as these requirements apply thereto;
- 2.10 the ship was/was not<sup>5</sup> subjected to an alternative design and arrangements in pursuance of Regulation(s) II-1/55 / II-2/17 / III/38<sup>5</sup> of the Convention;
- 2.11 a Document of approval of alternative design and arrangements for machinery and electrical installations/fire protection/life-saving appliance and arrangements<sup>5</sup> is/is not<sup>5</sup> appended to this Certificate.

***This certificate is valid until*** .....

Completion date of the survey on which this certificate is based: .....  
(dd/mm/yyyy)

Issued at .....  
(Place of issue of certificate)

.....  
(Date of issue)

.....  
(Signature of authorised official  
issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

<sup>1</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.

<sup>2</sup> For oil tankers, chemical tankers and gas carriers only.

<sup>3</sup> For a ship certified to operate in sea area A3, indicate the recognised mobile satellite service in brackets.

<sup>4</sup> In accordance with the IMO Ship Identification Number Scheme, adopted by the Organisation by resolution A.1117(30).

<sup>5</sup> Delete as appropriate.”.

## Replacement of Second Schedule

**24.** In the principal Regulations, replace the Second Schedule with —



---

---

“SECOND SCHEDULE

Regulations 12 and 15 of Chapter I

**RECORD OF EQUIPMENT FOR PASSENGER SHIP SAFETY  
(FORM P)**

RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE  
INTERNATIONAL CONVENTION FOR THE SAFETY  
OF LIFE AT SEA, 1974, AS AMENDED

1 *Particulars of ship*

Name of ship .....

Distinctive number or letters .....

Number of passengers for which certified .....

Minimum number of persons with required qualifications to operate the  
radio installations .....

## 2 *Details of life-saving appliances*

1	Total number of persons for which life-saving appliances are provided: .....		
		Port side	Starboard side
2	Total number of lifeboats	.....	.....
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of partially enclosed lifeboats (Regulation III/21 and LSA Code, section 4.5)	.....	.....
2.3	Number of self-righting partially enclosed lifeboats (Regulation III/43 <sup>1</sup> )	.....	.....
2.4	Number of totally enclosed lifeboats (Regulation III/21 and LSA Code, section 4.6)	.....	.....
2.5	Other lifeboats	.....	.....
2.5.1	Number	.....	.....
2.5.2	Type	.....	.....
3	Number of motor lifeboats (included in the total lifeboats shown above)	.....	
3.1	Number of lifeboats fitted with searchlights	.....	
4	Number of rescue boats	.....	
4.1	Number of boats which are included in the total lifeboats shown above	.....	
4.2	Number of boats which are fast rescue boats	.....	
5	Liferafts		
5.1	Those for which approved launching appliances are required		

5.1.1	Number of liferafts	.....
5.1.2	Number of persons accommodated by them	.....
5.2	Those for which approved launching appliances are not required	
5.2.1	Number of liferafts	.....
5.2.2	Number of persons accommodated by them	.....
6	Number of Marine Evacuation Systems (MES)	.....
6.1	Number of liferafts served by them	.....
6.2	Number of persons accommodated by them	.....
7	Buoyant apparatus	
7.1	Number of apparatus	.....
7.2	Number of persons capable of being supported	.....
8	Number of lifebuoys	.....
9	Number of lifejackets (total)	.....
9.1	Number of adult lifejackets	.....
9.2	Number of child lifejackets	.....
9.3	Number of infant lifejackets	.....
10	Immersion suits	
10.1	Total number	.....
10.2	Number of suits complying with the requirements for lifejackets	.....
11	Number of anti-exposure suits	.....
12	Number of thermal protective aids <sup>2</sup>	.....

3 *Details of radio facilities*

Item		Actual provision
1	Primary systems	
1.1	VHF radio installation	
1.1.1	DSC encoder	.....
1.1.2	DSC watch receiver	.....
1.1.3	Radiotelephony	.....
1.2	MF radio installation	
1.2.1	DSC encoder	.....
1.2.2	DSC watch receiver	.....
1.2.3	Radiotelephony	.....
1.3	MF/HF radio installation	
1.3.1	DSC encoder	.....
1.3.2	DSC watch receiver	.....
1.3.3	Radiotelephony	.....
1.4	Recognised mobile satellite service ship earth station	.....
2	Secondary means of initiating the transmission of ship-to-shore distress alerts	.....
3	Facilities for reception of MSI and search and rescue related information	.....
4	EPIRB	.....
5	Two-way VHF radiotelephone apparatus	
5.1	Portable two-way VHF radiotelephone apparatus	.....
5.2	Two-way VHF radiotelephone apparatus fitted in survival craft	.....

6	Search and rescue locating devices	
6.1	Radar search and rescue transponders (radar SART) stowed for rapid placement in survival craft	.....
6.2	Radar search and rescue transponders (radar SART) stowed in survival craft	.....
6.3	AIS search and rescue transmitters (AIS-SART) stowed for rapid placement in survival craft	.....
6.4	AIS search and rescue transmitters (AIS-SART) stowed in survival craft	.....

4      ***Methods used to ensure availability of radio facilities***  
(Regulations IV/15.6 and IV/15.7)

- 4.1      Duplication of equipment .....
- 4.2      Shore-based maintenance .....
- 4.3      At-sea maintenance capability .....

5 *Details of navigational systems and equipment*

Item		Actual provision
1.1	Standard magnetic compass <sup>3</sup>	.....
1.2	Spare magnetic compass <sup>3</sup>	.....
1.3	Gyro-compass <sup>3</sup>	.....
1.4	Gyro-compass heading repeater <sup>3</sup>	.....
1.5	Gyro-compass bearing repeater <sup>3</sup>	.....
1.6	Heading or track control system <sup>3</sup>	.....
1.7	Pelorus or compass bearing device <sup>3</sup>	.....
1.8	Means of correcting heading and bearings	.....
1.9	Transmitting heading device (THD) <sup>3</sup>	.....
2.1	Nautical charts/Electronic chart display and information system (ECDIS) <sup>4</sup>	.....
2.2	Back-up arrangements for ECDIS	.....
2.3	Nautical publications	.....
2.4	Back-up arrangements for electronic nautical publications	.....
3.1	Receiver for a global navigation satellite system/terrestrial radionavigation system/multisystem shipborne radionavigation receiver <sup>4, 3</sup>	.....
3.2	9 GHz radar <sup>3</sup>	.....
3.3	Second radar (3 GHz/9 GHz <sup>4</sup> ) <sup>3</sup>	.....

3.4	Automatic radar plotting aid (ARPA) <sup>3</sup>	.....
3.5	Automatic tracking aid <sup>3</sup>	.....
3.6	Second automatic tracking aid <sup>3</sup>	.....
3.7	Electronic plotting aid <sup>3</sup>	.....
4.1	Automatic identification system (AIS)	.....
4.2	Long-range identification and tracking system	.....
5	Voyage data recorder (VDR)	.....
6.1	Speed and distance measuring device (through the water) <sup>3</sup>	.....
6.2	Speed and distance measuring device (over the ground in the forward and athwartships direction) <sup>3</sup>	.....
7	Echo-sounding device <sup>3</sup>	.....
8.1	Rudder, propeller, thrust, pitch and operational mode indicator <sup>3, 4</sup>	.....
8.2	Rate-of-turn indicator <sup>3</sup>	.....
9	Sound reception system <sup>3</sup>	.....
10	Telephone to emergency steering position <sup>3</sup>	.....
11	Daylight signalling lamp <sup>3</sup>	.....
12	Radar reflector <sup>3</sup>	.....
13	International Code of Signals	.....
14	IAMSAR Manual, Volume III	.....
15	Bridge navigational watch alarm system (BNWAS)	.....

---

---

***THIS IS TO CERTIFY*** that this Record is correct in all respects.

Issued at

.....  
*(Place of issue of the Record)*

.....  
*(Date of issue)*

.....  
*(Signature of duly authorised official  
issuing the Record)*

*(Seal or stamp of the issuing authority, as appropriate)*

---

<sup>1</sup> Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1st July 1986, but before 1st July 1998.

<sup>2</sup> Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.2.13.

<sup>3</sup> Alternative means of meeting this requirement are permitted under Regulation V/19. In case of other means, they shall be specified.

<sup>4</sup> Delete as appropriate.



## RECORD OF EQUIPMENT FOR CARGO SHIP SAFETY (FORM E)

### RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

#### 1 *Particulars of ship*

Name of ship .....

Distinctive number or letters .....

#### 2 *Details of life-saving appliances*

1	Total number of persons for which life-saving appliances are provided: .....		
		Port side	Starboard side
2	Total number of davit-launched lifeboats	.....	.....
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of self-righting partially enclosed lifeboats (Regulation III/43 <sup>1</sup> )	.....	.....
2.3	Number of totally enclosed lifeboats (Regulation III/31 and LSA Code, section 4.6)	.....	.....
2.4	Number of lifeboats with a self-contained air support system (Regulation III/31 and LSA Code, section 4.8)	.....	.....

2.5	Number of fire-protected lifeboats (Regulation III/31 and LSA Code, section 4.9)	.....	.....
2.6	Other lifeboats	.....	.....
2.6.1	Number	.....	.....
2.6.2	Type	.....	.....
3	Total number of free-fall lifeboats	.....	
3.1	Total number of persons accommodated by them	.....	
3.2	Number of totally enclosed lifeboats (Regulation III/31 and LSA Code, section 4.7)	.....	
3.3	Number of lifeboats with a self-contained air support system (Regulation III/31 and LSA Code, section 4.8)	.....	
3.4	Number of fire-protected lifeboats (Regulation III/31 and LSA Code, section 4.9)	.....	
4	Number of motor lifeboats (included in the total lifeboats shown in 2 and 3 above)	.....	
4.1	Number of lifeboats fitted with searchlights	.....	
5	Number of rescue boats	.....	
5.1	Number of boats which are included in the total lifeboats shown in 2 and 3 above	.....	
6	Liferafts	.....	
6.1	Those for which approved launching appliances are required	.....	
6.1.1	Number of liferafts	.....	

6.1.2	Number of persons accommodated by them	.....
6.2	Those for which approved launching appliances are not required	.....
6.2.1	Number of liferafts	.....
6.2.2	Number of persons accommodated by them	.....
6.3	Number of liferafts required by Regulation III/31.1.4	.....
7	Number of lifebuoys	.....
8	Number of lifejackets	.....
9	Immersion suits	
9.1	Total number	.....
9.2	Number of suits complying with the requirements for lifejackets	.....
10	Number of anti-exposure suits	.....

### 3 *Details of navigational systems and equipment*

	Item	Actual provision
1.1	Standard magnetic compass <sup>2</sup>	.....
1.2	Spare magnetic compass <sup>2</sup>	.....
1.3	Gyro-compass <sup>2</sup>	.....
1.4	Gyro-compass heading repeater <sup>2</sup>	.....
1.5	Gyro-compass bearing repeater <sup>2</sup>	.....
1.6	Heading or track control system <sup>2</sup>	.....
1.7	Pelorus or compass bearing device <sup>2</sup>	.....
1.8	Means of correcting heading and bearings	.....

1.9	Transmitting heading device (THD) <sup>2</sup>	.....
2.1	Nautical charts/Electronic chart display and information system (ECDIS) <sup>3</sup>	.....
2.2	Back-up arrangements for ECDIS	.....
2.3	Nautical publications	.....
2.4	Back-up arrangements for electronic nautical publications	.....
3.1	Receiver for a global navigation satellite system/terrestrial radionavigation system/multisystem shipborne radionavigation receiver <sup>3, 2</sup>	.....
3.2	9 GHz radar <sup>2</sup>	.....
3.3	Second radar (3 GHz/9 GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4	Automatic radar plotting aid (ARPA) <sup>2</sup>	.....
3.5	Automatic tracking aid <sup>2</sup>	.....
3.6	Second automatic tracking aid <sup>2</sup>	.....
3.7	Electronic plotting aid <sup>2</sup>	.....
4.1	Automatic identification system (AIS)	.....
4.2	Long-range identification and tracking system	.....
5.1	Voyage data recorder (VDR) <sup>3</sup>	.....
5.2	Simplified voyage data recorder (S-VDR) <sup>3</sup>	.....
6.1	Speed and distance measuring device (through the water) <sup>2</sup>	.....
6.2	Speed and distance measuring device (over the ground in the forward and athwartships direction) <sup>2</sup>	.....

7	Echo-sounding device <sup>2</sup>	.....
8.1	Rudder, propeller, thrust, pitch and operational mode indicator <sup>2, 3</sup>	.....
8.2	Rate-of-turn indicator <sup>2</sup>	.....
9	Sound reception system <sup>2</sup>	.....
10	Telephone to emergency steering position <sup>2</sup>	.....
11	Daylight signalling lamp <sup>2</sup>	.....
12	Radar reflector <sup>2</sup>	.....
13	International Code of Signals	.....
14	IAMSAR Manual, Volume III	.....
15	Bridge navigational watch alarm system (BNWAS)	.....

***THIS IS TO CERTIFY*** that this Record is correct in all respects.

Issued at

.....  
*(Place of issue of the Record)*

.....  
*(Date of issue)*                      *(Signature of duly authorised official issuing the Record)*

*(Seal or stamp of the issuing authority, as appropriate)*

<sup>1</sup> Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1st July 1986, but before 1st July 1998.

<sup>2</sup> Alternative means of meeting this requirement are permitted under Regulation V/19. In case of other means, they shall be specified.

<sup>3</sup> Delete as appropriate.

## RECORD OF EQUIPMENT FOR CARGO SHIP SAFETY RADIO (FORM R)

### RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

#### 1 *Particulars of ship*

Name of ship .....

Distinctive number or letters .....

Minimum number of persons with required qualifications to operate the  
radio installations .....

#### 2 *Details of radio facilities*

Item		Actual provision
1	Primary systems	
1.1	VHF radio installation	
1.1.1	DSC encoder	.....
1.1.2	DSC watch receiver	.....
1.1.3	Radiotelephony	.....
1.2	MF radio installation	
1.2.1	DSC encoder	.....
1.2.2	DSC watch receiver	.....
1.2.3	Radiotelephony	.....
1.3	MF/HF radio installation	
1.3.1	DSC encoder	.....
1.3.2	DSC watch receiver	.....
1.3.3	Radiotelephony	.....

1.4	Recognised mobile satellite service ship earth station	.....
2	Secondary means of initiating the transmission of ship-to-shore distress alerts	.....
3	Facilities for reception of MSI and search and rescue related information	.....
4	EPIRB	.....
5	Two-way VHF radiotelephone apparatus	.....
5.1	Portable two-way VHF radiotelephone apparatus	.....
5.2	Two-way VHF radiotelephone apparatus fitted in survival craft	.....
6	Search and rescue locating devices	
6.1	Radar search and rescue transponders (radar SART) stowed for rapid placement in survival craft	.....
6.2	Radar search and rescue transponders (radar SART) stowed in survival craft	.....
6.3	AIS search and rescue transmitters (AIS-SART) stowed for rapid placement in survival craft	.....
6.4	AIS search and rescue transmitters (AIS-SART) stowed in survival craft	.....

3     ***Methods used to ensure availability of radio facilities***  
      (Regulations IV/15.6 and IV/15.7)

3.1   Duplication of equipment .....

3.2   Shore-based maintenance .....

3.3   At-sea maintenance capability .....

***THIS IS TO CERTIFY*** that this Record is correct in all respects.

Issued at

.....  
*(Place of issue of the Record)*

.....  
*(Date of issue)*

.....  
*(Signature of duly authorised official  
issuing the Record)*

*(Seal or stamp of the issuing authority, as appropriate)*



## RECORD OF EQUIPMENT FOR CARGO SHIP SAFETY (FORM C)

### RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

#### 1 *Particulars of ship*

Name of ship .....

Distinctive number or letters .....

Minimum number of persons with required qualifications to operate the  
radio installations .....

#### 2 *Details of life-saving appliances*

1	Total number of persons for which life-saving appliances are provided: .....		
		Port side	Starboard side
2	Total number of davit-launched lifeboats	.....	.....
2.1	Total number of persons accommodated by them	.....	.....
2.2	Number of self-righting partially enclosed lifeboats (Regulation III/43 <sup>1</sup> )	.....	.....
2.3	Number of totally enclosed lifeboats (Regulation III/31 and LSA Code, section 4.6)	.....	.....
2.4	Number of lifeboats with a self-contained air support system (Regulation III/31 and LSA Code, section 4.8)	.....	.....

2.5	Number of fire-protected lifeboats (Regulation III/31 and LSA Code, section 4.9)	.....	.....
2.6	Other lifeboats		
2.6.1	Number	.....	.....
2.6.2	Type	.....	.....
3	Total number of free-fall lifeboats	.....	
3.1	Total number of persons accommodated by them	.....	
3.2	Number of totally enclosed lifeboats (Regulation III/31 and LSA Code, section 4.7)	.....	
3.3	Number of lifeboats with a self-contained air support system (Regulation III/31 and LSA Code, section 4.8)	.....	
3.4	Number of fire-protected lifeboats (Regulation III/31 and LSA Code, section 4.9)	.....	
4	Number of motor lifeboats (included in the total lifeboats shown in 2 and 3 above)	.....	
4.1	Number of lifeboats fitted with searchlights	.....	
5	Number of rescue boats	.....	
5.1	Number of boats which are included in the total lifeboats shown in 2 and 3 above	.....	
6	Liferafts		
6.1	Those for which approved launching appliances are required		
6.1.1	Number of liferafts	.....	
6.1.2	Number of persons accommodated by them	.....	

6.2	Those for which approved launching appliances are not required	
6.2.1	Number of liferafts	.....
6.2.2	Number of persons accommodated by them	.....
6.3	Number of liferafts required by Regulation III/31.1.4	.....
7	Number of lifebuoys	.....
8	Number of lifejackets	.....
9	Immersion suits	
9.1	Total number	.....
9.2	Number of suits complying with the requirements for lifejackets	.....
10	Number of anti-exposure suits	.....

### 3 *Details of radio facilities*

Item		Actual provision
1	Primary systems	
1.1	VHF radio installation	.....
1.1.1	DSC encoder	.....
1.1.2	DSC watch receiver	.....
1.1.3	Radiotelephony	.....
1.2	MF radio installation	
1.2.1	DSC encoder	.....
1.2.2	DSC watch receiver	.....
1.2.3	Radiotelephony	.....
1.3	MF/HF radio installation	
1.3.1	DSC encoder	.....
1.3.2	DSC watch receiver	.....
1.3.3	Radiotelephony	.....

1.4	Recognised mobile satellite service ship earth station	.....
2	Secondary means of initiating the transmission of ship-to-shore distress alerts	.....
3	Facilities for reception of MSI and search and rescue related information	.....
4	EPIRB	.....
5	Two-way VHF radiotelephone apparatus	
5.1	Portable two-way VHF radiotelephone apparatus	.....
5.2	Two-way VHF radiotelephone apparatus fitted in survival craft	.....
6	Search and rescue locating devices	
6.1	Radar search and rescue transponders (radar SART) stowed for rapid placement in survival craft	.....
6.2	Radar search and rescue transponders (radar SART) stowed in survival craft	.....
6.3	AIS search and rescue transmitters (AIS-SART) stowed for rapid placement in survival craft	.....
6.4	AIS search and rescue transmitters (AIS-SART) stowed in survival craft	.....

4 ***Methods used to ensure availability of radio facilities***  
(Regulations IV/15.6 and IV/15.7)

4.1 Duplication of equipment .....

4.2 Shore-based maintenance .....

4.3 At-sea maintenance capability .....

5 ***Details of navigational systems and equipment***

	Item	Actual provision
1.1	Standard magnetic compass <sup>2</sup>	.....
1.2	Spare magnetic compass <sup>2</sup>	.....
1.3	Gyro-compass <sup>2</sup>	.....
1.4	Gyro-compass heading repeater <sup>2</sup>	.....
1.5	Gyro-compass bearing repeater <sup>2</sup>	.....
1.6	Heading or track control system <sup>2</sup>	.....
1.7	Pelorus or compass bearing device <sup>2</sup>	.....
1.8	Means of correcting heading and bearings	.....
1.9	Transmitting heading device (THD) <sup>2</sup>	.....
2.1	Nautical charts/Electronic chart display and information system (ECDIS) <sup>3</sup>	.....
2.2	Back-up arrangements for ECDIS	.....
2.3	Nautical publications	.....
2.4	Back-up arrangements for electronic nautical publications	.....

3.1	Receiver for a global navigation satellite system/terrestrial radionavigation system/multisystem shipborne radionavigation receiver <sup>3, 2</sup>	.....
3.2	9 GHz radar <sup>2</sup>	.....
3.3	Second radar (3 GHz/9 GHz <sup>3</sup> ) <sup>2</sup>	.....
3.4	Automatic radar plotting aid (ARPA) <sup>2</sup>	.....
3.5	Automatic tracking aid <sup>2</sup>	.....
3.6	Second automatic tracking aid <sup>2</sup>	.....
3.7	Electronic plotting aid <sup>2</sup>	.....
4.1	Automatic identification system (AIS)	.....
4.2	Long-range identification and tracking system	.....
5.1	Voyage data recorder (VDR) <sup>3</sup>	.....
5.2	Simplified voyage data recorder (S-VDR) <sup>3</sup>	.....
6.1	Speed and distance measuring device (through the water) <sup>2</sup>	.....
6.2	Speed and distance measuring device (over the ground in the forward and athwartships direction) <sup>2</sup>	.....
7	Echo-sounding device <sup>2</sup>	.....
8.1	Rudder, propeller, thrust, pitch and operational mode indicator <sup>2, 3</sup>	.....
8.2	Rate-of-turn indicator <sup>2</sup>	.....
9	Sound reception system <sup>2</sup>	.....
10	Telephone to emergency steering position <sup>2</sup>	.....
11	Daylight signalling lamp <sup>2</sup>	.....

12	Radar reflector	.....
13	International Code of Signals	.....
14	IAMSAR Manual, Volume III	.....
15	Bridge navigational watch alarm system (BNWAS)	.....

***THIS IS TO CERTIFY*** that this Record is correct in all respects.

Issued at

.....  
(Place of issue of the Record)

.....  
(Date of issue)                      (Signature of duly authorised official  
issuing the Record)

(Seal or stamp of the issuing authority, as appropriate)

<sup>1</sup> Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1st July 1986, but before 1st July 1998.

<sup>2</sup> Alternative means of meeting this requirement are permitted under Regulation V/19. In case of other means, they shall be specified.

<sup>3</sup> Delete as appropriate.

”.

[G.N. Nos. S 287/99; S 40/2000; S 511/2000; S 533/2001;  
S 314/2002; S 613/2002; S 645/2003; S 217/2004;  
S 697/2005; S 282/2006; S 691/2006; S 339/2008;  
S 686/2008; S 286/2009; S 664/2009; S 366/2010;  
S 793/2010; S 622/2011; S 284/2012; S 621/2012;  
S 847/2013; S 432/2014; S 866/2014; S 375/2015;  
S 802/2015; S 277/2016; S 669/2016; S 872/2019;  
S 112/2022]

Made on 15 December 2023.

NIAM CHIANG MENG  
*Chairperson,  
Maritime and Port Authority of  
Singapore.*

[AG/LEGIS/SL/179/2020/6 Vol. 1]