

**DRAFT**

**MINISTRY OF PORTS, SHIPPING AND WATERWAYS**

**NOTIFICATION**

New Delhi, the \_\_\_\_\_ 2026

**G.S.R. XX.**— In exercise of the powers conferred by sub-sections (1) and (2) of section 116, sub-section (1) and clauses (a), (b) and (e) of sub-section (2) of section 130 of the Merchant Shipping Act, 2025 (24 of 2025), and in supersession of the Merchant Shipping (Life-Saving Appliances) Rules, 1991, as amended, except as respects things done or omitted to be done before such supersession, the Central Government hereby makes the following rules, namely:—

**SECTION I — PRELIMINARY**

**1. Short title and commencement.**

- (1) These Rules may be called the Merchant Shipping (Life-Saving Appliances) Rules, 2026.
- (2) They shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

**2. Application**

(1) Unless expressly provided otherwise, these rules shall apply to every Indian ship going to sea and every sea-going sailing vessel, the keels of which are laid, or which are at a similar stage of construction, on or after the 1st day of July, 1998.

(2) For the purposes of this rule, “a similar stage of construction” means the stage at which—

- (a) construction identifiable with a specific ship begins; and
- (b) assembly of that ship has commenced and comprises at least fifty tonnes or one per cent of the estimated mass of all structural material, whichever is less.

(3) For the purposes of these rules—

- (a) “ships constructed” means ships the keels of which are laid or which are at a similar stage of construction;
- (b) “all ships” means ships constructed before, on or after the 1st day of July, 1998, and the expressions “all passenger ships” and “all cargo ships” shall be construed accordingly; and
- (c) 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 conversion commences.

(4) In respect of ships constructed before the 1st day of July, 1998, the Director General shall—

(a) ensure that, subject to the provisions of clause (b), the requirements applicable under Chapter III of the International Convention for the Safety of Life at Sea, 1974, as in force immediately prior to the 1st day of July, 1998, to new or existing ships, are complied with;

(b) ensure that when life-saving appliances or arrangements on such ships are replaced, or when such ships undergo repairs, alterations, or modifications of a major nature involving replacement of, or any addition to, existing life-saving appliances or arrangements, such appliances or arrangements, in so far as is reasonable and practicable, comply with the requirements of these rules:

Provided that where a survival craft other than an inflatable liferaft is replaced without replacing its launching appliance, or vice versa, the survival craft or the launching appliance may be of the same type as that replaced; and

(c) ensure that the requirements corresponding to paragraph 10 of Schedule II and Rule 12 are complied with.

(5) Notwithstanding clause (b) of sub-rule (4), for all ships, not later than the first scheduled dry-docking after the 1st day of July, 2014, but in no case later than the 1st day of July, 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment complying with the Code.

### **3. Equivalentents and Exemptions**

#### **(1) Equivalentents.**

Where these rules require that a particular fitting, material, appliance, apparatus, or type thereof shall be fitted or carried in a ship, or that any particular provision shall be made, the Director General may permit any other fitting, material, appliance, apparatus, or provision to be fitted or carried in that ship, if satisfied by trial, evidence, or other means, and such satisfaction is recorded in writing, that such alternative is at least as effective as that required under these rules.

#### **(2) Exemptions.**

##### **(a) Nature of voyage.**

The Director General may, if satisfied that the sheltered nature and conditions of the voyage render the application of any specific provision of these rules unreasonable or unnecessary, exempt from those requirements any individual ship or class of ships which, in the course of their voyage, do not proceed more than 20 nautical miles from the nearest land.

**(b) Special trade passenger ships.**

In the case of passenger ships employed in special trades for the carriage of large numbers of special trade passengers, including pilgrim ships, the Director General may grant exemptions from specific requirements of these rules, provided such ships fully comply with—

- (i) the rules annexed to the *Special Trade Passenger Ships Agreement, 1971*; and
- (ii) the rules annexed to the *Protocol on Space Requirements for Special Trade Passenger Ships, 1973*.

**(c) Exceptional voyages.**

The Director General may exempt any ship not normally engaged on international voyages, but which, in exceptional circumstances, is required to undertake a single international voyage, from any of the requirements of these rules, subject to such conditions as may be considered appropriate to ensure safety.

**4. Definitions**

For the purpose of these rules, unless expressly provided otherwise:

- (a) "Act" means the Merchant Shipping Act, 2025 (Act No. 24 of 2025);
- (b) "approved" means approved by the Director General to the Government of India.
- (c) "Administration" means the Central Government and includes the Director General of Maritime Administration when exercising the powers and functions of the Administration under these rules.
- (d) "Organization" means the International Maritime Organization (IMO);
- (e) "Director General" means the Director General of Maritime Administration appointed under sub-section (1) of section 7 of the Merchant Shipping Act, 2025;
- (f) "Anti-exposure suit" is a protective suit designed for use by rescue boat crews and marine evacuation system parties.
- (g) "Certificated person" is a person who holds a certificate of proficiency in survival craft issued under the authority of, or recognized as valid by, the Director General of Maritime Administration in accordance with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, in Force; or a person who holds a certificate issued or recognized by the Director General of Maritime Administration of a State not a Party to that Convention for the same purpose as the convention certificate.
- (h) "Detection" is the determination of the location of survivors or survival craft.

- (i) "Embarkation ladder" is the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.
- (j) "Embarkation station" means the area designated as such on board a ship from where the crew and passengers can embark a survival craft directly from that station;
- (k) "Fair weather season" means,--
  - (i) in the Arabian Sea, the season beginning on and from the 1<sup>st</sup> September and ending with the 31<sup>st</sup> May; and (ii)
  - (ii) in the Bay of Bengal, the season beginning on and from 1<sup>st</sup> December and ending with the 30<sup>th</sup> April;
- (l) "Foul weather season" means,--
  - (i) in the Arabian Sea, the season beginning on and from the 1<sup>st</sup> June and ending with the 31<sup>st</sup> August; and
  - (ii) in the Bay of Bengal, the season beginning on and from the 1<sup>st</sup> May and ending with the 30<sup>th</sup> November;
- (m) "Float-free launching" is that method of launching a survival craft whereby the craft is automatically released from a sinking ship and is ready for use.
- (n) "Free-fall launching" is that method of launching a survival craft whereby the craft with its complement of persons and equipment on board is released and allowed to fall into the sea without any restraining apparatus.
- (o) "Immersion suit" is a protective suit which reduces the body heat loss of a person wearing it in cold water.
- (p) "Inflatable appliance" is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept uninflated until ready for use.
- (q) "Inflated appliance" is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is kept inflated and ready for use at all times.
- (r) "International voyage" means a voyage from or to a port or place in India to or from a port or place outside India
- (s) "International Life-Saving Appliance(LSA) Code"(referred to as "the Code" in this chapter) means the International Life-Saving Appliance(LSA) Code adopted by the Maritime Safety Committee of the Organization by [resolution MSC.48\(66\)](#), as it may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of

article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I.

- (t) "Launching appliance or arrangement" is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.
- (u) "Length" is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that is greater. In ships designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline.
- (v) "Lightest sea-going condition" is the loading condition with the ship on an even keel, without cargo, with 10% stores and fuel remaining and in the case of a passenger ship with the full number of passengers and crew and their luggage.
- (w) "Marine evacuation system" is an appliance for the rapid transfer of persons from the embarkation deck of a ship to a floating survival craft.
- (x) "Muster list" means a list of the crew and passenger who are required to assemble at a given muster station";
- (y) "Muster Station" means the area designated as such on board a ship for assembly of crew and passengers";
- (z) "Moulded depth"
  - (i) The moulded depth is the vertical distance measured from the top of the keel to the top of the freeboard deck beam a side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.
  - (ii) In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design.
  - (iii) Where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the

moulded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

- (aa) "Novel life-saving appliance or arrangement" is a life-saving appliance or arrangement which embodies new features not fully covered by the provisions of this chapter or the Code but which provides an equal or higher standard of safety.
- (bb) "non-convention vessel" means a vessel to which the International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974) does not apply, and includes a vessel -
  - (i) registered under the Merchant Shipping Act, 2025; and
  - (ii) engaged in domestic, coastal, harbour, or offshore operations; or
  - (iii) otherwise declared by the Central Government, by notification, to be a non-convention vessel for the purposes of these rules.
- (cc) "Positive stability" is the ability of a craft to return to its original position after the removal of a heeling moment.
- (dd) "Recovery time" for a rescue boat is the time required to raise the boat to a position where persons on board can disembark to the deck of the ship. Recovery time includes the time required to make preparations for recovery on board the rescue boat such as passing and securing a painter, connecting the rescue boat to the launching appliance, and the time to raise the rescue boat. Recovery time does not include the time needed to lower the launching appliance into position to recover the rescue boat.
- (ee) "Rescue boat" is a boat designed to rescue persons in distress and to marshal survival craft.
- (ff) "Retrieval" is the safe recovery of survivors.
- (gg) "Ro-ro passenger ship" means a passenger ship with ro-ro cargo spaces or special category spaces as defined in regulation II-2/3.
- (hh) "Short international voyage" is an international voyage in the course of which a ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination nor the return voyage shall exceed 600 miles. The final port of

destination is the last port of call in the scheduled voyage at which the ship commences its return voyage to the country in which the voyage began.

(ii) "Survival craft" is a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.

(jj) "Thermal protective aid" is a bag or suit made of waterproof material with low thermal conductances.

"Requirements for maintenance, thorough examination, operational testing, overhaul and repair" means the Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear, adopted by the Maritime Safety Committee of the Organization by [resolution MSC.402\(96\)](#), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

## **5. Classification of ships**

For the purposes of these rules—Indian ships going to sea and sea going sailing vessels, shall be arranged in the following classes, namely :-

### **A — Passenger Ships**

Class I — Passenger ships engaged on international voyages other than ships of Class III.

Class II — Passenger ships engaged on short international voyages other than ships of Class IV.

Class III — Special Trade Passenger Ships engaged on international voyages.

Class IV — Special Trade Passenger Ships engaged on short international voyages.

Class V — Special Trade Passenger Ships (other than ships of Classes VI and VII) engaged on voyages other than international voyages.

Class VI — Special Trade Passenger Ships engaged on coasting voyages within 20 nautical miles from the nearest land:

Provided that such ships shall not cease to be Class VI merely by reason of crossing the Gulf of Kutch, Cambay, or Mannar.

Class VII — Special Trade Passenger Ships engaged on fair-weather voyages between ports in India not exceeding 5 nautical miles from the nearest land.

## **B — Cargo Ships**

Class VIII — Cargo ships engaged on international voyages.

Class IX — Cargo ships (other than Class X) engaged on voyages which are not international.

Class X — Cargo ships engaged on coasting trade within 20 nautical miles from the nearest land:

Provided that such ships shall not cease to be Class X merely by reason of crossing the Gulf of Kutch, Cambay, or Mannar.

Class XI — Cargo ships engaged on fair-weather voyages between ports in India not exceeding 5 nautical miles from the nearest land.

## **C — Miscellaneous Vessels**

Class XII — Tugs, tenders, launches, lighters, dredgers, barges and hoppers which mainly operate within the sheltered waters and may occasionally go up-to open sea in fair weather conditions.

Class XIII — Fishing vessels other than those specified in Class XIV.

Class XIV — Sailing vessels including sailing boats or vessels solely engaged in fishing for profit.

Class XV — Pleasure yachts.

## **6. Application of Schedules.—**

(1) All ships shall comply with the requirements prescribed in the Schedules, according to their respective categories, as follows —

- (a) the general requirements applicable to all passenger and cargo ships shall be as specified in Schedule I;
- (b) additional requirements for passenger ships, in addition, comply with Schedule II;
- (c) additional requirements for cargo ships, in addition, comply with Schedule III;

## **SECTION II - General Requirements for Life-Saving Appliances**

### **7. Approval of life-saving appliances.—**

(1) No life-saving appliance or arrangement shall be carried on board any vessel unless such appliance or arrangement is of a type approved by the Director General.

(2) The Director General may recognise approvals granted by the Maritime Administration of another country, where such approvals are based on standards

equivalent to those prescribed under these rules and the International Life-Saving Appliance (LSA) Code.

(3) Before granting approval, the Director General shall ensure that such tests or trials as are necessary to confirm compliance with these rules and the Code are carried out:

Provided that the Director General may, subject to such supervision and conditions as may be specified, authorise a Recognised Organisation or an approved testing establishment to carry out such tests or trials on his behalf.

#### **8. Evaluation, testing and approval of life-saving appliances and arrangements.—**

(1) All life-saving appliances and arrangements required by these rules shall be of a type approved in accordance with **rule 7**.

(2) Before granting approval, the Director General shall ensure that the life-saving appliances and arrangements—

(a) are tested and evaluated to confirm compliance with the performance standards and requirements of these rules and the International Life-Saving Appliance (LSA) Code, in accordance with the recommendations of the Organization; or

(b) have successfully undergone, to the satisfaction of the Director General, tests that are substantially equivalent to those recommendations.

(3) Before approving any novel life-saving appliance or arrangement, the Director General shall ensure that—

(a) the appliance provides safety standards at least equivalent to the requirements of these rules and the Code and has been evaluated and tested on the basis of the guidelines developed by the Organization; or

(b) the arrangement has successfully undergone engineering analysis and evaluation in accordance with **rule 12**.

(4) Procedures established by the Director General for approval shall include conditions under which such approval may continue, be suspended, or be withdrawn.

(5) When accepting a life-saving appliance or arrangement not previously approved by the Directorate, the Director General shall satisfy himself that it complies with the requirements of these rules and the Code.

(6) Life-saving appliances for which detailed specifications are not included in the Code shall be to the satisfaction of the Director General, provided that they offer an equivalent level of safety.

#### **9. Production tests.—**

(1) The Director General shall ensure that production tests are carried out, as necessary, to verify that each life-saving appliance is manufactured to the same standard as the approved prototype.

(2) Production testing shall be conducted in accordance with the relevant provisions of the International Life-Saving Appliance (LSA) Code and IMO Resolution MSC.81(70), as amended.

## **SECTION III - Life-Saving Appliances & Arrangements Requirements**

### **10. Compliance with the International Life-Saving Appliance (LSA) Code.—**

All life-saving appliances and arrangements shall comply with the applicable requirements of the Code, as referenced in these rules.

### **11. Training manual and on-board training aids.—**

(1) This rule applies to all ships.

(2) A Ship specific training manual complying with sub-rule (3) shall be provided in each crew mess room and recreation room or in each crew cabin.

(3) The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms and illustrated wherever possible, on the life-saving appliances provided in the ship and on the best methods of survival. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual. The following shall be explained in detail:

- (a) donning of lifejackets, immersion suits and anti-exposure suits, as appropriate;
  - (b) mustering at the assigned stations;
  - (c) boarding, launching and clearing the survival craft and rescue boats, including, where applicable, use of marine evacuation systems;
  - (d) method of launching from within the survival craft;
  - (e) release from launching appliances;
  - (f) methods and use of devices for protection in launching areas, where appropriate;
  - (g) illumination in launching areas;
  - (h) use of all survival equipment;
  - (i) use of all detection equipment;
  - (j) use, with the assistance of illustrations, of radio life-saving appliances;
  - (k) use of drogues;
  - (l) use of engines and accessories;
  - (m) recovery of survival craft and rescue boats, including stowage and securing;
  - (n) hazards of exposure and the need for warm clothing;
  - (o) best use of survival-craft facilities in order to survive;
  - (p) methods of retrieval, including use of helicopter-rescue gear (slings, baskets, stretchers), breeches-buoy, shore life-saving apparatus and ship's line-throwing apparatus;
  - (q) all other functions contained in the muster list and emergency instructions; and
  - (r) instructions for emergency repair of life-saving appliances.
- (4) Every ship fitted with a marine evacuation system shall be provided with on-board training aids in the use of that system.
- (5) The training manual shall be written in the working language of the ship.

### **12. Instructions for on-board maintenance.—**

(1) Instructions for on-board maintenance of life-saving appliances shall be easily understood and, where appropriate, illustrated.

(2) Such instructions shall include, for each appliance—

- (a) a checklist for use when carrying out the inspections required by paragraph 14 of Schedule I;

- (b) maintenance and repair instructions;
- (c) a schedule of periodic maintenance;
- (d) a diagram of lubrication points with the recommended lubricants;
- (e) a list of replaceable parts;
- (f) a list of sources of spare parts; and
- (g) a log for recording inspections and maintenance.

### **13. Muster list and emergency instructions.—**

- (1) The muster list shall specify details of the general emergency alarm and public-address system prescribed by paragraph 7.2 of the Code and the action to be taken by the crew and passengers when that alarm is sounded. It shall also specify how the order to abandon ship will be given.
- (2) Each passenger ship shall have procedures in place for locating and rescuing passengers trapped in their staterooms.
- (3) The muster list shall show the duties assigned to the different members of the crew, including—
  - (a) closing of watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings;
  - (b) equipping of survival craft and other life-saving appliances;
  - (c) preparation and launching of survival craft;
  - (d) general preparations of other life-saving appliances;
  - (e) muster of passengers;
  - (f) use of communication equipment;
  - (g) manning of fire parties assigned to deal with fires;
  - (h) special duties assigned in respect of fire-fighting equipment and installations; and
  - (i) for passenger ships only, damage control for flooding emergencies.
- (4) The muster list shall specify which Officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use.
- (5) The muster list shall specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.
- (6) The muster list shall show the duties assigned to members of the crew in relation to passengers in case of emergency, including—
  - (a) warning the passengers;
  - (b) ensuring that they are suitably clad and have donned their lifejackets correctly;
  - (c) assembling passengers at muster stations;
  - (d) maintaining order in passageways and stairways and generally controlling passenger movement; and
  - (e) ensuring that a supply of blankets is taken to the survival craft.
- (7) The muster list shall be prepared before the ship proceeds to sea. After it has been prepared, if any change takes place in the crew which necessitates an alteration, the Master shall either revise the list or prepare a new one.
- (8) The format of the muster list used on passenger ships shall be approved by the Director General.

## SECTION IV - ALTERNATIVE DESIGN AND ARRANGEMENTS

### 14. Alternative design and arrangements

#### (1) Purpose.—

The purpose of this rule is to provide a methodology for alternative design and arrangements for life-saving appliances and arrangements.

#### (2) General.—

(a) Life-saving appliances and arrangements may deviate from the requirements set out in Part B of Schedule I, provided that such alternative design and arrangements meet the intent of the requirements concerned and provide an equivalent level of safety to these rules.

(b) Where any alternative design or arrangement deviates from the prescriptive requirements of Part B of Schedule I, an engineering analysis, evaluation and approval of such design and arrangements shall be carried out in accordance with this rule.

#### (3) Engineering analysis.—

The engineering analysis shall be prepared and submitted to the Director General, based on the guidelines developed by the International Maritime Organization, and shall include, at a minimum, the following elements:—

(a) determination of the ship type and the life-saving appliances and arrangements concerned;

(b) identification of the prescriptive requirement or requirements with which the life-saving appliances and arrangements will not comply;

(c) identification of the reason the proposed design will not meet the prescriptive requirements, supported by compliance with other recognised engineering or industry standards;

(d) determination of the performance criteria for the ship and the life-saving appliances and arrangements concerned, addressed by the relevant prescriptive requirement or requirements, namely:—

(i) the performance criteria shall provide a level of safety not inferior to the relevant prescriptive requirements contained in Part B of Schedule I; and

(ii) the performance criteria shall be quantifiable and measurable;

(e) detailed description of the alternative design and arrangements, including the assumptions used in the design and any proposed operational restrictions or conditions;

(f) technical justification demonstrating that the alternative design and arrangements meet the safety performance criteria; and

(g) risk assessment identifying the potential faults and hazards associated with the proposal.

#### (4) Evaluation and approval.—

(a) The engineering analysis submitted under sub-rule (3) shall be evaluated and approved by the Director General, having due regard to the guidelines developed by the International Maritime Organization.

(b) A copy of the documentation, as approved by the Director General, indicating that the alternative design and arrangements comply with this rule, shall be carried on board the ship.

(5) Notification to the International Maritime Organization.—

The Director General shall forward to the International Maritime Organization information on alternative designs and arrangements approved under these rules, in accordance with India's obligations as a Contracting Government under the International Convention for the Safety of Life at Sea (SOLAS), for circulation to other Contracting Governments.

(6) Changes to approved assumptions.—

Where the assumptions or operational restrictions stipulated in the approved alternative design and arrangements are changed, the engineering analysis shall be reviewed and resubmitted to the Director General for approval under the changed conditions.

**THE FIRST SCHEDULE**  
**GENERAL REQUIREMENTS FOR PASSENGER SHIPS AND CARGO SHIPS**

**1. Communications**

1 [Reserved]

*(Radio — deleted as covered under Chapter IV / GMDSS)*

2 [Reserved]

*(Search & rescue locating devices — relocated under Chapter IV)*

3 Distress flares

Not less than 12 rocket parachute flares, complying with the requirements of section 3.1 of the Code, shall be carried and be stowed on or near the navigation bridge.

4 On-board communications and alarm systems

4.1 An emergency means comprised of either fixed or portable equipment or both shall be provided for two-way communications between emergency control stations, muster and embarkation stations and strategic positions on board.

4.2 A general emergency alarm system complying with the requirements of paragraph 7.2.1 of the Code shall be provided and shall be used for summoning passengers and crew to muster stations and to initiate the actions included in the muster list. The system shall be supplemented by either a public address system complying with the requirements of paragraph 7.2.2 of the Code or other suitable means of communication. Entertainment sound systems shall automatically be turned off when the general emergency alarm system is activated.

4.3 The general emergency alarm system shall be audible throughout all the accommodation and normal crew working spaces. On passenger ships, the system shall also be audible on all open decks.

4.4 On ships fitted with a marine evacuation system communication between the embarkation station and the platform or the survival craft shall be ensured.

5 Public address systems on passenger ships

5.1 In addition to the requirements of regulation II-2/40.5 or regulation II-2/ 41-2, as appropriate, and of paragraph 6.4.2, all passenger ships shall be fitted with a public address system. With respect to passenger ships constructed before 1 July 1997 the requirements of paragraphs 5.2 and 5.4, subject to the provisions of paragraph 5.5, shall apply not later than the date of the first periodical survey after 1 July 1997

5.2 The public address system shall be clearly audible above the ambient noise in all spaces, prescribed by paragraph 7.2.2.1 of the Code, and shall be provided with an override function controlled from one location on the navigation bridge and such other places on board as the Director General of Maritime Administration deems necessary, so that all emergency messages will be broadcast if any loudspeaker in the spaces concerned has been switched off, its volume has been turned down or the public address system is used for other purposes.

5.3 On passenger ships constructed on or after 1 July 1997:

.1 the public address system shall have at least two loops which shall be sufficiently separated throughout their length and have two separate and independent amplifiers; and

.2 the public address system and its performance standards shall be approved by the Director General of Maritime Administration having regard to the recommendations adopted by the Organization.

5.4 The public address system shall be connected to the emergency source of electrical power required by regulation II-1/42.2.2.

5.5 Ships constructed before 1 July 1997 which are already fitted with the public address system approved by the Director General of Maritime Administration which complies substantially with those required by paragraphs 5.2 and 5.4 and paragraph 7.2.2.1 of the Code are not required to change their system

## **2. Personal life-saving appliances**

### **1 Lifebuoys**

1.1 Lifebuoys complying with the requirements of paragraph 2.1.1 of the Code shall be:

.1 so distributed as to be readily available on both sides of the ship and as far as practicable on all open decks extending to the ship's side; at least one shall be placed in the vicinity of the stern; and

.2 so stowed as to be capable of being rapidly cast loose, and not permanently secured in any way.

1.2 At least one lifebuoy on each side of the ship shall be fitted with a buoyant lifeline complying with the requirements of paragraph 2.1.4 of the Code equal in length to not less than twice the height at which it is stowed above the waterline in the lightest seagoing condition, or 30 m, whichever is the greater.

1.3 Not less than one half of the total number of lifebuoys shall be provided with lifebuoy self-igniting lights complying with the requirements of paragraph 2.1.2 of the Code, not less than two of these shall also be provided with lifebuoy self-activating smoke signals complying with the requirements of paragraph 2.1.3 of the Code and be capable of quick release from the navigation bridge; lifebuoys with lights and those with lights and smoke signals shall be equally distributed on both sides of the ship and shall not be the lifebuoys provided with lifelines in compliance with the requirements of paragraph 1.2.

1.4 Each lifebuoy shall be marked in block capitals of the Roman alphabet with the name and Port of Registry of the ship on which it is carried.

## 2 Lifejackets

2.1 A lifejacket complying with the requirements of paragraph 2.2.1 or 2.2.2 of the Code shall be provided for every person on board the ship and, in addition:

.1 for passenger ships on voyages less than 24 h, a number of infant lifejackets equal to at least 2.5% of the number of passengers on board shall be provided;

.2 for passenger ships on voyages 24 h or greater, infant lifejackets shall be provided for each infant on board;

.3 a number of lifejackets suitable for children equal to at least 10% of the number of passengers on board shall be provided or such greater number as may be required to provide a lifejacket for each child;

.4 a sufficient number of lifejackets shall be carried for persons on watch and for use at remotely located survival craft stations. The lifejackets carried for persons on watch should be stowed on the bridge, in the engine control room and at any other manned watch station; and

.5 if the adult lifejackets provided are not designed to fit persons weighing up to 140 kg and with a chest girth of up to 1,750 mm, a sufficient number of suitable accessories shall be available on board to allow them to be secured to such persons.

2.2 Lifejackets shall be so placed as to be readily accessible and their position shall be plainly indicated. Where, due to the particular arrangements of the ship, the lifejackets provided in compliance with the requirements of paragraph 2.1 may become inaccessible, alternative provisions shall be made to the satisfaction of the Director General of Maritime Administration which may include an increase in the number of Lifejackets to be carried.

2.3 The lifejackets used in totally enclosed lifeboats, except free-fall lifeboats, shall not impede entry into the lifeboat or seating, including operation of the seat belts in the lifeboat.

2.4 Lifejackets selected for free-fall lifeboats, and the manner in which they are carried or worn, shall not interfere with entry into the lifeboat, occupant's safety or operation of the lifeboat.

### 3 Immersion suits and anti-exposure suits

An immersion suit, complying with the requirements of section 2.3 of the Code or an anti-exposure suit complying with section 2.4 of the Code, of an appropriate size, shall be provided for every person assigned to crew the rescue boat or assigned to the marine evacuation system party. If the ship is constantly engaged in warm climates where, in the opinion of the Director General of Maritime Administration thermal protection is unnecessary, this protective clothing need not be carried.

## **3. Muster list and emergency instructions**

1 This paragraph applies to all ships.

2 Clear instructions to be followed in the event of an emergency shall be provided for every person on board. In the case of passenger ships these instructions shall be drawn up in the language or languages required by the ship's Flag State and in the English language.

3 Muster lists and emergency instructions complying with the requirements of Rule 12 shall be exhibited in conspicuous places throughout the ship including the navigation bridge, engine-room and crew accommodation spaces.

4 Illustrations and instructions in appropriate languages shall be posted in passenger cabins and be conspicuously displayed at muster stations and other passenger spaces to inform passengers of:

.1 their muster station;

.2 the essential actions they must take in an emergency;and

.3 the method of donning lifejackets.

## **4. Operating instructions**

1 This paragraph applies to all ships.

2 Posters or signs shall be provided on or in the vicinity of survival craft and their launching controls and shall:

.1 illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings;

.2 be easily seen under emergency lighting conditions; and

.3 use symbols in accordance with the recommendations of the Organization.

## **5. Manning of survival craft and supervision**

1 This paragraph applies to all ships.

2 There shall be a sufficient number of trained persons on board for mustering and assisting untrained persons.

3 There shall be a sufficient number of crew members, who may be deck officers or certificated persons, on board for operating the survival craft and launching arrangements required for abandonment by the total number of persons on board.

4 A deck officer or certificated person shall be placed in charge of each survival craft to be used. However, the Administration, having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practiced in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.

5 The person in charge of the survival craft shall have a list of the survival craft crew and shall see that the crew under his command are acquainted with their duties. In lifeboats the second-in-command shall also have a list of the lifeboat crew.

6 Every motorized survival craft shall have a person assigned who is capable of operating the engine and carrying out minor adjustments.

7 The master shall ensure the equitable distribution of persons referred to in paragraphs 2, 3 and 4 among the ship's survival craft.

## **6. Survival craft muster and embarkation arrangements**

1 Lifeboats and liferafts for which approved launching appliances are required shall be stowed as close to accommodation and service spaces as possible.

2 Muster stations shall be provided close to the embarkation stations. Each muster station shall have sufficient clear deck space to accommodate all persons assigned to muster at that station, but at least 0.35m<sup>2</sup>per person.

3 Muster and embarkation stations shall be readily accessible from accommodation and work areas.

4 Muster and embarkation stations shall be adequately illuminated by lighting supplied from the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate.

5 Alleyways, stairways and exits giving access to the muster and embarkation stations shall be lighted. Such lighting shall be capable of being supplied by the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate. In addition to and as part of the markings required under regulation II-2/28.1.10, routes to muster stations shall be indicated with the muster station symbol, intended for that purpose, in accordance with the recommendations of the Organization.

6 Davit-launched and free-fall launched survival craft muster and embarkation stations shall be so arranged as to enable stretcher cases to be placed in survival craft.

7 An embarkation ladder complying with the requirements of paragraph 6.1.6 of the Code extending, in a single length, from the deck to the waterline in the lightest seagoing condition under *all* conditions of trim of up to 10° and a list of up to 20° either way shall be provided at each embarkation station or at every two adjacent embarkation stations for survival craft launched down the side of the ship.

However, the Director General of Maritime Administration may permit such ladders to be replaced by approved devices to afford access to the survival craft when waterborne, provided that there shall be at least one embarkation ladder on each side of the ship. Other means of embarkation enabling descent to the water in a controlled manner may be permitted for the liferafts required by paragraph 1 of schedule II

8 Where necessary, means shall be provided for bringing the davit-launched survival craft against the ship's side and holding them alongside so that persons can be safely embarked.

## **7. Launching stations**

Launching stations shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull and so that, as far as possible, survival craft, except survival craft specially designed for free-fall launching, can be launched down the straight side of the ship. If

positioned forward, they shall be located abaft the collision bulkhead in a sheltered position and, in this respect, the Director General of Maritime Administration shall give special consideration to the strength of the launching appliance.

## **8. Stowage of survival craft**

1 Each survival craft shall be stowed:

.1 so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching station;

.2 as near the water surface as is safe and practicable and, in the case of a survival craft other than an liferaft intended for throw over board launching, in such a position that the survival craft in the embarkation position is not less than 2 m above the waterline with the ship in the fully loaded condition under unfavourable conditions of trim of up to 10° and listed up to 20° either way, or to the angle at which the ship's weather deck edge becomes submerged, whichever is less;

.3 in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than 5 min;

.4 fully equipped as required by this chapter and the Code; and

.5 as far as practicable, in a secure and sheltered position and protected from damage by fire and explosion. In particular, survival craft on tankers, other than the liferafts required by paragraph 1 of schedule II, shall not be stowed on or above a cargo tank, slop tank, or other tank containing explosive or hazardous cargoes.

2 Lifeboats for lowering down the ship's side shall be stowed as far forward of the propeller as practicable. On cargo ships of 80 m in length and upwards but less than 120 m in length, each lifeboat shall be so stowed that the after end of the lifeboat is not less than the length of the lifeboat forward of the propeller. On cargo ships of 120 m in length and upwards and passenger ships of 80 m in length and upwards, each lifeboat shall be so stowed that the after end of the lifeboat is not less than 1.5 times the length of the lifeboat forward of the propeller. Where appropriate, the ship shall be so arranged that lifeboats, in their stowed positions, are protected from damage by heavy seas.

3 Lifeboats shall be stowed attached to launching appliances.

4.1 Every liferaft shall be stowed with its painter permanently attached to the ship.

4.2 Each liferaft or group of liferafts shall be stowed with a float-free arrangement complying with the requirements of paragraph 4.1.6 of the Code so that each floats free and, if inflatable, inflates automatically when the ship sinks.

4.3 Liferafts shall be so stowed as to permit manual release of one raft or container at a time from their securing arrangements.

4.4 Paragraphs 4.1 and 4.2 do not apply to liferafts required by paragraph 1 of schedule II.

5 Davit-launched liferafts shall be stowed within reach of the lifting hooks, unless some means of transfer is provided which is not rendered inoperable within the limits of trim and list prescribed in paragraph 1.2 or by ship motion or power failure.

6 Liferafts intended for throw-overboard launching shall be so stowed as to be readily transferable for launching on either side of the ship unless liferafts, of the aggregate capacity required by paragraph 1 of schedule II to be capable of being launched on either side, are stowed on each side of the ship.

## **9. Stowage of rescue boats**

Rescue boats shall be stowed:

.1 in a state of continuous readiness for launching in less than 5 min, and if the inflated type, in a fully inflated condition at all times;

.2 in a position suitable for launching and recovery;

.3 so that neither the rescue boat nor its stowage arrangements will interfere with the operation of any survival craft at any other launching station; and

.4 if it is also a lifeboat, in compliance with the requirements of paragraph 8 of schedule I.

## **10. Stowage of marine evacuation systems**

Stowage of Marine Evacuation Systems

1 The ship's side shall not have any openings between the embarkation station of the marine evacuation system and the waterline in the lightest seagoing condition and means shall be provided to protect the system from any projections.

2 Marine evacuation systems shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging positions of the hull and so that, as far as practicable, the system can be launched down the straight side of the ship.

3 Each marine evacuation system shall be stowed so that neither the passage nor platform nor its stowage or operational arrangements will interfere with the operation of any other life-saving appliance at any other launching station.

4 Where appropriate, the ship shall be so arranged that the marine evacuation systems in their stowed positions are protected from damage by heavy seas.

## **11. Survival craft launching and recovery arrangements**

1 Unless expressly provided otherwise, launching and embarkation appliances complying with the requirements of section 6.1 of the Code shall be provided for all survival craft except those which are:

.1 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which have a mass of not more than 185 kg; or

.2 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which are stowed for launching directly from the stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way; or

.3 carried in excess of the survival craft for 200% of the total number of persons on board the ship and which have a mass of not more than 185 kg; or

.4 carried in excess of the survival craft for 200% of the total number of persons on board the ship, are stowed for launching directly from the stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way, or

.5 provided for use in conjunction with a marine evacuation system, complying with the requirements of section 6.2 of the Code and stowed for launching directly from the stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way.

2 Each lifeboat shall be provided with an appliance which is capable of launching and recovering the lifeboat. In addition there shall be provision for hanging-off the lifeboat to free the release gear for maintenance.

3 Launching and recovery arrangements shall be such that the appliance operator on the ship is able to observe the survival craft at all times during launching and for lifeboats during recovery.

4 Only one type of release mechanism shall be used for similar survival craft carried on board the ship.

5 Preparation and handling of survival craft at any one launching station shall not interfere with the prompt preparation and handling of any other survival craft or rescue boat at any other station.

6 Falls, where used, shall be long enough for the survival craft to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of trim of up to 10° and list of up to 20° either way.

7 During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched shall be adequately illuminated by lighting supplied from the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate.

8 Means shall be available to prevent any discharge of water on to survival craft during abandonment.

9 If there is a danger of the survival craft being damaged by the ship's stabilizer wings, means shall be available, powered by an emergency source of energy, to bring the stabilizer wings inboard ; indicators operated by an emergency source of energy shall be available on the navigating bridge to show the position of the stabilizer wings.

10 If partially enclosed lifeboats complying with the requirements of section 4.5 of the Code are carried, a davit span shall be provided, fitted with not less than two lifelines of sufficient length to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of trim of up to 10° and list of up to 20° either way.

## **12. Rescue boat embarkation, launching and recovery arrangements**

1 The rescue boat embarkation and launching arrangements shall be such that the rescue boat can be boarded and launched in the shortest possible time.

2 If the rescue boat is one of the ship's survival craft, the embarkation arrangements and launching station shall comply with the requirements of paragraph 6 of schedule I and 7 of schedule I.

3 Launching arrangements shall comply with the requirements of paragraph 11 of schedule I. However, all rescue boats shall be capable of being launched, where necessary utilizing painters, with the ship making headway at speeds up to 5 knots in calm water.

4 Recovery time of the rescue boat shall be less than 5 min in moderate sea conditions when loaded with its full complement of persons and equipment. If the rescue boat is also a lifeboat, this recovery time shall be possible when loaded with its lifeboat equipment and the approved rescue boat complement of at least six persons.

5 Rescue boat embarkation and recovery arrangements shall allow for safe and efficient handling of a stretcher case. Foul weather recovery strops shall be provided for safety if heavy fall blocks constitute a danger.

### **13. Recovery of persons from the water**

1 All ships shall have ship-specific plans and procedures for recovery of persons from the water, taking into account the guidelines developed by the Organization. The plans and procedures shall identify the equipment intended to be used for recovery purposes and measures to be taken to minimize the risk to shipboard personnel involved in recovery operations. Ships constructed before 1 July 2014 shall comply with this requirement by the first periodical or renewal safety equipment survey of the ship to be carried out after 1 July 2014, whichever comes first.

2 Ro-ro passenger ships which comply with paragraph 6 of schedule II shall be deemed to comply with this regulation.

### **14. Line-throwing appliances**

A line-throwing appliance complying with the requirements of section 7.1 of the Code shall be provided.

### **15. Emergency training and drills**

1 This paragraph applies to all ships.

2 Familiarity with safety installations and practice musters

2.1 Every crew member with assigned emergency duties shall be familiar with these duties before the voyage begins.

2.2 On a ship engaged on a voyage where passengers are scheduled to be on board for more than 24 h, musters of newly-embarked passengers shall take place prior to or immediately upon departure. Passengers shall be instructed in the use of the lifejackets and the action to take in an emergency.

2.3 Whenever new passengers embark, a passenger safety briefing shall be given immediately before departure, or immediately after departure. The briefing shall include the instructions required by paragraph 14 of schedule I, and shall be made by means of an announcement, in one or more languages likely to be understood by the passengers. The announcement shall be made on the ship's public address system, or by other equivalent means likely to be heard at least by the passengers who have not yet heard it during the voyage. The briefing may be included in the muster required by paragraph

2.2. Information cards or posters or video programs displayed on ships video displays may be used to supplement the briefing, but may not be used to replace the announcement.

### 3 Drills

3.1 Drills shall, as far as practicable, be conducted as if there were an actual emergency.

3.2 Every crew member shall participate in at least one abandon ship drill and one fire drill every month. The drills of the crew shall take place within 24 h of the ship leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular ship in the previous month. When a ship enters service for the first time, after modification of a major character or when a new crew is engaged, these drills shall be held before sailing. The Director General of Maritime Administration may accept other arrangements that are at least equivalent for those classes of ships for which this is impracticable.

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

#### 3.4 Abandon ship drill

3.4.1 Each abandon ship drill shall include:

.1 summoning of passengers and crew to muster stations with the alarm required by 1 paragraph of schedule I followed by drill announcement on the public address or other communication system and ensuring that they are made aware of the order to abandon ship;

.2 reporting to stations and preparing for the duties described in the muster list;

.3 checking that passengers and crew are suitably dressed;

.4 checking that lifejackets are correctly donned;

.5 lowering of at least one lifeboat after any necessary preparation for launching;

.6 starting and operating the lifeboat engine;

.7 operation of davits used for launching liferafts;

.8 a mock search and rescue of passengers trapped in their staterooms; and

.9 instruction in the use of radio life-saving appliances.

3.4.2 Different lifeboats shall, as far as practicable, be lowered in compliance with the requirements of paragraph 3.4.1.5 at successive drills.

3.4.3 Except as provided in paragraphs 3.4.4 and 3.4.5, each lifeboat shall be launched, and manoeuvred in the water by its assigned operating crew, at least once every three months during an abandon ship drill.

3.4.4 In the case of a lifeboat arranged for free-fall launching, at least once every three months during an abandon ship drill the crew shall board the lifeboat, properly secure themselves in their seats and commence launch procedures up to but not including the actual release of the lifeboat (i.e., the release hook shall not be released). The lifeboat shall then either be free-fall launched with only the required operating crew on board, or lowered into the water by means of the secondary means of launching with or without the operating crew on board. In both cases the lifeboat shall thereafter be manoeuvred in the water by the operating crew. At intervals of not more than six months, the lifeboat shall either be launched by free-fall with only the operating crew on board, or simulated launching shall be carried out in accordance with the guidelines developed by the Organization.

3.4.5 The Director General of Maritime Administration may allow ships operating on short international voyages not to launch the lifeboats on one side if their berthing arrangements in port and their trading patterns do not permit launching of lifeboats on that side. However, all such lifeboats shall be lowered at least once every 3 months and launched at least annually.

3.4.6 As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, shall be launched each month with their assigned crew aboard and manoeuvred in the water. In all cases this requirement shall be complied with at least once every 3 months.

3.4.7 If lifeboat and rescue boat launching drills are carried out with the ship making headway, such drills shall, because of the dangers involved, be practised in sheltered waters only and under the supervision of an officer experienced in such drills.

3.4.8 If a ship is fitted with marine evacuation systems, drills shall include exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on-board training aids required by Rule 12 . Additionally every system party member shall, as far as practicable, be further trained by participation in a full deployment of a similar system into water, either on board a ship or ashore, at intervals of not longer than 2 years, but in no case longer than 3 years. This training can be associated with the deployments required by paragraph 14 of schedule I.

3.4.9 Emergency lighting for mustering and abandonment shall be tested at each abandon ship drill.

### 3.5 Fire drills

3.5.1 Fire drills should be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of ships and the cargo.

3.5.2 Each fire drill shall include;

.1 reporting to stations and preparing for the duties described in the muster list required by paragraph 14 of schedule I;

.2 starting of a fire pump, using at least the two required jets of water to show that the system is in proper working order;

.3 checking of fireman's outfit and other personal rescue equipment;

.4 checking of relevant communication equipment;

.5 checking the operation of watertight doors, fire doors, fire dampers and main inlets and outlets of ventilation systems in the drill area; and

.6 checking the necessary arrangements for subsequent abandoning of the ship.

3.5.3 The equipment used during drills shall immediately be brought back to its fully operational condition and any faults and defects discovered during the drills shall be remedied as soon as possible.

### 3.6 Enclosed space entry and rescue drills

3.6.1 Enclosed space entry and rescue drills should be planned and conducted in a safe manner, taking into account, as appropriate, the guidance provided in the recommendations developed by the Organization.

3.6.2 Each enclosed space entry and rescue drill shall include:

.1 checking and use of personal protective equipment required for entry;

.2 checking and use of communication equipment and procedures;

.3 checking and use of instruments for measuring the atmosphere in enclosed spaces;

.4 checking and use of rescue equipment and procedures; and

.5 instructions in first aid and resuscitation techniques.

## 4 On-board training and instructions

4.1 On-board training in the use of the ship's life-saving appliances, including survival craft equipment, and in the use of the ship's fire-extinguishing appliances shall be given as soon as possible but not later than 2 weeks after a crew member joins the ship. However, if the crew member is on a regularly scheduled rotating assignment to the ship, such training shall be given not later than 2 weeks after the time of first joining the ship. Instructions in the use of the ship's fire-extinguishing appliances, life-saving appliances, and in survival at sea shall be given at the same interval as the drills. Individual instruction may cover different parts of the ship's life-saving and fire-extinguishing appliances, but all the ship's life-saving and fire-extinguishing appliances shall be covered within any period of 2 months.

4.2 Every crew member shall be given instructions which shall include but not necessarily be limited to:

- .1 operation and use of the ship's inflatable liferafts;
- .2 problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;
- .3 special instructions necessary for use of the ship's life-saving appliances in severe weather and severe sea conditions;
- .4 operation and use of fire-extinguishing appliances; and
- .5 risks associated with enclosed spaces and onboard procedures for safe entry into such spaces which should take into account, as appropriate, the guidance provided in recommendations developed by the Organization.

4.3 On-board training in the use of davit-launched liferafts shall take place at intervals of not more than 4 months on every ship fitted with such appliances. Whenever practicable this shall include the inflation and lowering of a liferaft. This liferaft may be a special liferaft intended for training purposes only, which is not part of the ship's life-saving equipment; such a special liferaft shall be conspicuously marked.

## 5 Records

The date when musters are held, details of abandon ship drills and fire drills, enclosed space entry and rescue drills, drills of other life-saving appliances and on board training shall be recorded in such log-book as may be prescribed by the Director General. If a full muster, drill or training session is not held at the appointed time, an entry shall be made in the log-book stating the circumstances and the extent of the muster, drill or training session held.

## **16. Operational readiness, maintenance and inspections**

1 This paragraph applies to all ships. The requirements of paragraphs 3.2, 3.3 and 6.2 shall be complied with, as far as is practicable, on ships constructed before 1 July 1986.

### **2 Operational readiness**

Before the ship leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

### **3 Maintenance**

3.1 Maintenance, testing and inspections of life-saving appliances shall be carried out in a manner having due regard to ensuring reliability of such appliances.

3.2 Instructions for on-board maintenance of life-saving appliances complying with Rule 11 shall be provided and maintenance shall be carried out accordingly.

3.3 The Director General of Maritime Administration may accept, in compliance with the requirements of paragraph 3.2, a shipboard planned maintenance programme, which includes the requirements Rule 11.

### **4 Maintenance of falls**

Falls used in launching shall be inspected periodically with special regard for areas passing through sheaves, and renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier.

### **5 Spares and repair equipment**

Spares and repair equipment shall be provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly.

### **6 Weekly inspection**

The following tests and inspections shall be carried out weekly and a report of the inspection shall be entered in the log-book:

.1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use. The inspection shall include, but is not limited to, the condition of hooks, their attachment to the lifeboat and the on-load release gear being properly and completely reset;

.2 all engines in lifeboats and rescue boats shall be run for a total period of not less than 3 min, provided the ambient temperature is above the minimum temperature required

for starting and running the engine. During this period of time, it should be demonstrated that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow it to be run other than with its propeller submerged for a period of 3 min, a suitable water supply may be provided. In special cases, the Director General of Maritime Administration may waive this requirement for ships constructed before 1 July 1986;

.3 lifeboats, except free-fall lifeboats, on cargo ships shall be moved from their stowed position, without any persons on board, to the extent necessary to demonstrate satisfactory operation of launching appliances, if weather and sea conditions so allow; and

.4 the general emergency alarm shall be tested.

## 7 Monthly inspection

7.1 All lifeboats, except free-fall lifeboats, shall be turned out from their stowed position, without any persons on board if weather and sea conditions so allow.

7.2 Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist required by Rule 11 to ensure that they are complete and in good order. A report of the inspection shall be entered in the log-book.

## 8 Servicing of inflatable liferafts, inflatable lifejackets, marine evacuation systems and maintenance and repair of inflated rescue boats

8.1 Every inflatable liferaft, inflatable lifejacket, and marine evacuation system shall be serviced:

.1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Director General of Maritime Administration may extend this period to 17 months; and

.2 at an approved servicing station which is competent to service them, maintains proper servicing facilities and used only properly trained personnel.

### 8.2 Rotational deployment of marine evacuation systems

In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph 8.1, each marine evacuation system should be deployed from the ship on a rotational basis at intervals to be agreed by the Director General of Maritime Administration provided that each system is to be deployed at least once every six years.

8.3 Director-General which approves new and novel inflatable liferaft arrangements pursuant to Rule 8 may allow for extended service intervals on the following conditions:

.1 The new and novel liferaft arrangement has proved to maintain the same standard, as required by testing procedure, during extended service intervals.

.2 The liferaft system shall be checked on board by certified personnel according to paragraph 8.1.1.

.3 Service at intervals not exceeding 5 years shall be carried out in accordance with the recommendations of the Organization.

8.4 All repairs and maintenance of inflated rescue boats shall be carried out in accordance with the manufacturer's instructions. Emergency repairs may be carried out on board the ship; however, permanent repairs shall be effected at an approved servicing station.

8.5 The Director General may, in accordance with Rule 5(3), approve extended service intervals for novel liferaft arrangements, and shall notify the Organization accordingly.

## 9 Periodic servicing of hydrostatic release units

Hydrostatic release units, other than disposable hydrostatic release units, shall be serviced:

.1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Director General of Maritime Administration may extend this period to 17 months; and

.2 at a servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

## 10 Marking of stowage locations

Containers, brackets, racks, and other similar stowage locations for life-saving equipment shall be marked with symbols in accordance with the recommendations of the Organization, indicating the devices stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices shall also be indicated.

11 Maintenance, thorough examination, operational testing, overhaul and repair of lifeboats, rescue boats and fast rescue boats, launching appliances and release gear

11.1 Launching appliances shall be:

.1 subject to a thorough examination at the annual surveys required by regulations I/7 or I/8, as applicable; and

.2 upon completion of the examination referred to in paragraph 11.1.1, subjected to a dynamic test of the winch brake at maximum lowering speed. The load to be applied shall be the mass of the survival craft or rescue boat without persons on board, except that, at intervals of at least once every five years, the test shall be carried out with a proof load equal to 1.1 times the weight of the survival craft or rescue boat and its full complement of persons and equipment.

11.2 Lifeboat and rescue boat release gear, including fast rescue boat release gear and free-fall lifeboat release systems, shall be:

.1 subject to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8;

.2 in case of on-load release gear, operationally tested under a load of 1.1 times the total mass of the boat when loaded with its full complement of persons and equipment whenever the release gear is overhauled. Such overhauling and operational test shall be carried out at least once every five years; and

.3 notwithstanding paragraph 11.2.2, the operational testing of free-fall lifeboat release systems shall be performed either by free fall launch with only the operating crew on board or by a test without launching the lifeboat carried out based on Requirements for maintenance, thorough examination, operational testing, overhaul and repair.

11.3 Davit-launched liferaft automatic release hooks shall be:

.1 subject to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8; and

.2 operationally tested under a load of 1.1 times the total mass of the liferaft when loaded with its full complement of persons and equipment whenever the automatic release hook is overhauled. Such overhauling and operational test shall be carried out at least once every five years.

11.4 Lifeboats and rescue boats, including fast rescue boats, shall be subject to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8.

11.5 The thorough examination, operational testing and overhaul required by paragraphs 11.1 to 11.4 and the maintenance and repair of equipment specified in paragraphs 11.1 to 11.4 shall be carried out in accordance with the Requirements for

maintenance, thorough examination, operational testing, overhaul and repair, and the instructions for onboard maintenance as required by Rule 11.

## **THE SECOND SCHEDULE PASSENGER SHIPS**

### **(ADDITIONAL REQUIREMENTS)**

#### **1. Survival craft and rescue boats**

##### 1 Survival craft

1.1 Passenger ships engaged on international voyages which are not short international voyage shall carry:

.1 partially or totally enclosed lifeboats complying with the requirements of section 4.5 or 4.6 of the Code on each side of such aggregate capacity as will accommodate not less than 50% of the total number of persons on board. The Director General may permit the substitution of lifeboats by liferafts of equivalent total capacity provided that there shall never be less than sufficient lifeboats on each side of the ship to accommodate 37.5% of the total number of persons on board. The inflatable or rigid liferafts shall comply with the requirements of section 4.2 or 4.3 of the Code and shall be served by launching appliances equally distributed on each side of the ship; and

.2 in addition, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code of such aggregate capacity as will accommodate at least 25% of the total number of persons on board. These liferafts shall be served by at least one launching appliance on each side which may be those provided in compliance with the requirements of paragraph 1.1.1 or equivalent approved appliances capable of being used on both sides. However, stowage of these liferafts need not comply with the requirements of paragraph 8 of schedule I.

1.2 Passenger ships engaged on short international voyages shall carry:

.1 partially or totally enclosed lifeboats complying with the requirements of section 4.5 or 4.6 of the Code of such aggregate capacity as will accommodate at least 30% of the total number of persons on board. The lifeboats shall, as far as practicable, be equally distributed on each side of the ship. In addition inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code shall be carried of such aggregate capacity that, together with the lifeboat capacity, the survival craft will accommodate the total number of persons on board. The liferafts shall be served by launching appliances equally distributed on each side of the ship and

.2 in addition, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code of such aggregate capacity as will accommodate at least 25% of the total number of persons on board. These liferafts shall be served by at least one

launching appliance on each side which may be those provided in compliance with the requirements of paragraph 1.2.1 or equivalent approved appliances capable of being used on both sides. However, stowage of these liferafts need not comply with the requirements of paragraph 8 of schedule I.

1.3 All survival craft required to provide for abandonment by the total number of persons on board shall be capable of being launched with their full complement of persons and equipment within a period of 30 min from the time the abandon ship signal is given after all persons have been assembled, with lifejackets donned

1.4 In lieu of meeting the requirements of paragraph 1.1 or 1.2, passenger ships of less than 500 gross tonnage where the total number of persons on board is less than 200, may comply with the following.

.1 they shall carry on each side of the ship, inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code and of such aggregate capacity as will accommodate the total number of persons on board.

.2 unless the liferafts required by paragraph 1.4.1 are stowed in a position providing for easy side-to-side transfer at a single open deck level, additional liferafts shall be provided so that the total capacity available on each side will accommodate 150% of the total number of persons on board.

.3 if the rescue boat required by paragraph 2.2 is also a partially or totally enclosed lifeboat complying with the requirements of section 4.5 or 4.6 of the Code, it may be included in the aggregate capacity required by paragraph 1.4.1, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board and

.4 in the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side, including those which are stowed in a position providing for easy side-to-side transfer at a single open deck level, to accommodate the total number of persons on board.

1.5 A marine evacuation system or systems complying with section 6.2 of the Code may be substituted for the equivalent capacity of liferafts and launching appliances required by paragraph 1.1.1 or 1.2.1.

## 2 Rescue boats

2.1 Passenger ships of 500 gross tonnage and over shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code on each side of the ship.

2.2 Passenger ships of less than 500 gross tonnage shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code.

2.3 A lifeboat may be accepted as a rescue boat provided that it and its launching and recovery arrangements also comply with the requirements for a rescue boat.

### 3 Marshalling of liferafts

3.1 The number of lifeboats and rescue boats that are carried on passenger ships shall be sufficient to ensure that in providing for abandonment by the total number of persons on board not more than six liferafts need be marshalled by each lifeboat or rescue boat.

3.2 The number of lifeboats and rescue boats that are carried on passenger ships engaged on short international voyages shall be sufficient to ensure that in providing for abandonment by the total number of persons on board not more than nine liferafts need be marshalled by each lifeboat or rescue boat.

## 2. Personal life-saving appliances

### 1 Lifebuoys

1.1 A passenger ship shall carry not less than the number of lifebuoys complying with the requirements of paragraph 2 of schedule I and section 2.1 of the Code prescribed in the following table:

| Length of ship in metres | Minimum number of lifebuoys |
|--------------------------|-----------------------------|
| under 60                 | 8                           |
| 60 and under 120         | 12                          |
| 120 and under 180        | 18                          |
| 180 and under 240        | 24                          |
| 240 and over             | 30                          |

1.2 Notwithstanding paragraph 2 of schedule I, passenger ships of under 60 m in length shall carry not less than six lifebuoys provided with self-igniting lights.

### 2 Lifejackets

2.1 In addition to the lifejackets required by paragraph 2 of schedule I, every passenger ship shall carry lifejackets for not less than 5% of the total number of persons on board. These lifejackets shall be stowed in conspicuous places on deck or at muster stations.

2.2 Where lifejackets for passengers are stowed in staterooms which are located remotely from direct routes between public spaces and muster stations, the additional lifejackets for these passengers required under paragraph 2 of schedule I, shall be stowed either in the public spaces, the muster stations, or on direct routes between

them. The lifejackets shall be stowed so that their distribution and donning does not impede orderly movement to muster stations and survival craft embarkation stations.

### 3 Lifejacket lights

3.1 On all passenger ships each lifejacket shall be fitted with a light complying with the requirements of paragraph 2.2.3 of the Code.

3.2 Lights fitted on lifejackets on board passenger ships prior to 1 July 1998 and not complying fully with paragraph 2.2.3 of the Code may be accepted by the Director General of Maritime Administration until the lifejacket light would normally be replaced or until the first periodical survey after 1 July 2002, whichever is the earliest.

### 4 Immersion suits and thermal protective aids

4.1 All passenger ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of section 2.3 of the Code and, in addition, a thermal protective aid complying with the requirements of section 2.5 of the Code for every person to be accommodated in the lifeboat and not provided with an immersion suit. These immersion suits and thermal protective aids need not be carried:

.1 for persons to be accommodated in totally or partially enclosed lifeboats; or

.2 if the ship is constantly engaged on voyages in warm climates where, in the opinion of the Administration, they are unnecessary.

4.2 The provisions of paragraph 4.1.1 also apply to partially or totally enclosed lifeboats not complying with the requirements of section 4.5 or 4.6 of the Code, provided they are carried on ships constructed before 1 July 1986.

## **3. Survival craft and rescue boat embarkation arrangements**

1 On passenger ships, survival craft embarkation arrangements shall be designed for:

.1 all lifeboats to be boarded and launched either directly from the stowed position or from an embarkation deck but not both; and

.2 davit-launched liferafts to be boarded and launched from a position immediately adjacent to the stowed position or from a position to which, in compliance with the requirements of paragraph 8 of schedule I, the liferaft is transferred prior to launching.

2 Rescue boat arrangements shall be such that the rescue boat can be boarded and launched directly from the stowed position with the number of persons assigned to crew the rescue boat on board. Notwithstanding the requirements of paragraph 1.1, if the rescue boat is also a lifeboat and the other lifeboats are boarded and launched from an

embarkation deck, the arrangements shall be such that the rescue boat can also be boarded and launched from the embarkation deck.

#### **4. Stowage of survival craft**

The stowage height of a survival craft on a passenger ship shall take into account the requirements of paragraph 8 of schedule I, the escape provisions of regulation II-2/28, the size of the ship, and the weather conditions likely to be encountered in its intended area of operation. For a davit-launched survival craft, the height of the davit head with the survival craft in embarkation position, shall, as far as practicable, not exceed 15 m to the waterline when the ship is in its lightest seagoing condition.

#### **5. Muster stations**

Every passenger ship shall, in addition to complying with the requirements of paragraph 6 of schedule I, have passenger muster stations which shall:

.1 be in the vicinity of, and permit ready access for the passengers to, the embarkation stations unless in the same location; and

.2 have ample room for marshalling and instruction of the passengers, but at least 0.35m<sup>2</sup> per passenger.

#### **6. Additional requirements for ro-ro passenger ships**

1 This paragraph applies to all ro-ro passenger ships. Ro-ro passenger ships constructed:

.1 on or after 1 July 1998 shall comply with the requirements of paragraphs 2.3, 2.4, 3.1, 3.2, 3.3, 4 and 5;

.2 on or after 1 July 1986 and before 1 July 1998 shall comply with the requirements of paragraph 5 not later than the first periodical survey after 1 July 1998 and with the requirements of paragraphs 2.3, 2.4, 3 and 4 not later than the first periodical survey after 1 July 2000;

.3 before 1 July 1986 shall comply with the requirements of paragraph 5 not later than the first periodical survey after 1 July 1998 and with the requirements of paragraphs 2.1, 2.2, 2.3, 2.4, 3 and 4 not later than the first periodical survey after 1 July 2000; and

.4 before 1 July 2004 shall comply with the requirements of paragraph 2.5 not later than the first survey on or after that date.

#### **2 Liferafts**

2.1 The ro-ro passenger ship's liferafts shall be served by marine evacuation systems complying with the requirements of section 6.2 of the Code or launching appliances complying with the requirements of paragraph 6.1.5 of the Code, equally distributed on each side of the ship.

2.2 Every liferaft on ro-ro passenger ships shall be provided with float-free stowage arrangements complying with the requirements of paragraph 8 of schedule I.

2.3 Every liferaft on ro-ro passenger ships shall be of a type fitted with a boarding ramp complying with the requirements of paragraph 4.2.4.1 or 4.3.4.1 of the Code, as appropriate.

2.4 Every liferaft on ro-ro passenger ships shall either be automatically self-righting or be a canopied reversible liferaft which is stable in a seaway and is capable of operating safely whichever way up it is floating. Alternatively, the ship shall carry automatically self-righting liferafts or canopied reversible liferafts, in addition to its normal complement of liferafts, of such aggregate capacity as will accommodate at least 50% of the persons not accommodated in lifeboats. This additional liferaft capacity shall be determined on the basis of the difference between the total number of persons on board and the number of persons accommodated in lifeboats. Every such liferaft shall be approved by the Director General of Maritime Administration having regard to the recommendations adopted by the Organization.

2.5 Liferafts carried on ro-ro passenger ships shall be fitted with a search and rescue locating device in the ratio of one search and rescue locating device for every four liferafts. The search and rescue locating device shall be mounted inside the liferaft so its antenna is more than one metre above the sea level when the liferaft is deployed, except that for canopied reversible liferafts the search and rescue locating device shall be so arranged as to be readily accessed and erected by survivors. Each search and rescue locating device shall be arranged to be manually erected when the liferaft is deployed. Containers of liferafts fitted with search and rescue locating devices shall be clearly marked.

### 3 Fast rescue boats

3.1 At least one of the rescue boats on a ro-ro passenger ship shall be a fast rescue boat complying with section 5.1.4 of the Code.

3.2 Each fast rescue boat shall be served by a suitable launching appliance complying with section 6.1.7 of the Code.

3.3 At least two crews of each fast rescue boat shall be trained and drilled regularly having regard to the Seafarers Training, Certification and Watchkeeping (STCW) Code

and recommendations adopted by the Organization, including all aspects of rescue, handling, manoeuvring, operating these craft in various conditions, and righting them after capsizing.

3.4 In the case where the arrangement or size of a ro-ro passenger ship, constructed before 1 July 1997, is such as to prevent the installation of the fast rescue boat required by paragraph 3.1, the fast rescue boat may be installed in place of an existing lifeboat which is accepted as a rescue boat or, in the case of ships constructed prior to 1 July 1986, boats for use in an emergency, provided that all of the following conditions are met:

.1 the fast rescue boat installed is served by a launching appliance complying with the provisions of paragraph 3.2;

.2 the capacity of the survival craft lost by the above substitution is compensated by the installation of liferafts capable of carrying at least an equal number of persons served by the lifeboat replaced; and

.3 such liferafts are served by the existing launching appliances or marine evacuation systems.

#### 4 Means of rescue

4.1 Each ro-ro passenger ship shall be equipped with efficient means for rapidly recovering survivors from the water and transferring survivors from rescue units or survival craft to the ship.

4.2 The means of transfer of survivors to the ship may be part of a marine evacuation system, or may be part of a system designed for rescue purposes.

4.3 If the slide of a marine evacuation system is intended to provide the means of transfer of survivors to the deck of the ship, the slide shall be equipped with handlines or ladders to aid in climbing up the slide.

#### 5 Lifejackets

5.1 Notwithstanding the requirements of paragraph 2 of Schedule I

and 2 of schedule I, a sufficient number of lifejackets shall be stowed in the vicinity of the muster stations so that passengers do not have to return to their cabins to collect their lifejackets.

5.2 In ro-ro passenger ships, each lifejacket shall be fitted with a light complying with the requirements of paragraph 2.2.3 of the Code.

## **7. Information on passengers**

- 1 All persons on board all passenger ships shall be counted prior to departure.
- 2 Details of persons who have declared a need for special care or assistance in emergency situations shall be recorded and communicated to the master prior to departure.
- 3 In addition, not later than 1 January 1999, the names and gender of all persons on board, distinguishing between adults, children and infants shall be recorded for search and rescue purposes.
- 4 The information required by paragraphs 1, 2 and 3 shall be kept ashore and made readily available to search and rescue services when needed.
- 5 Administrations may exempt passenger ships from the requirements of paragraph 3, if the scheduled voyages of such ships render it impracticable for them to prepare such records.

## **8. Helicopter landing and pick-up areas**

- 1 All ro-ro passenger ships shall be provided with a helicopter pick-up area approved by the Director General of Maritime Administration having regard to the recommendations adopted by the Organization.
- 2 Ro-ro passenger ships of 130 m in length and upwards, constructed on or after 1 July 1999, shall be fitted with a helicopter landing area approved by the Director General of Maritime Administration having regard to the recommendations adopted by the Organization.

## **9. Decision support system for masters of passenger ships**

- 1 This paragraph applies to all passenger ships. Passenger ships constructed before 1 July 1997 shall comply with the requirements of this paragraph not later than the date of the first periodical survey after 1 July 1999.
- 2 In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge.
- 3 The system shall, as a minimum, consist of a printed emergency plan or plans. All foreseeable emergency situations shall be identified in the emergency plan or plans, including, but not limited to, the following main groups of emergencies:

.1 fire;

.2 damage to ship;

.3 pollution;

.4 unlawful acts threatening the safety of the ship and the security of its passengers and crew;

.5 personnel accidents;

.6 cargo-related accidents; and

.7 emergency assistance to other ships.

4 The emergency procedures established in the emergency plan or plans shall provide decision support to Masters for handling any combination of emergency situations.

5 The emergency plan or plans shall have a uniform structure and be easy to use. Where applicable, the actual loading condition as calculated for the passenger ship's voyage stability shall be used for damage control purposes.

6 In addition to the printed emergency plan or plans, the Director General of Maritime Administration may also accept the use of a computer-based decision support system on the navigation bridge which provides all the information contained in the emergency plan or plans, procedures, checklists, etc., which is able to present a list of recommended actions to be carried out in foreseeable emergencies.

## **10. Drills**

1 This paragraph applies to all passenger ships.

2 On passenger ships, an abandon ship drill and fire drill shall take place weekly. The entire crew need not be involved in every drill, but each crew member must participate in an abandon ship drill and a fire drill each month as required in paragraph 15 of schedule I. Passengers shall be strongly encouraged to attend these drills.

3 Damage control drills shall be conducted as required in regulation II-1/19-1.

**THE THIRD SCHEDULE  
CARGO SHIPS**

**(ADDITIONAL REQUIREMENTS)**

**1. Survival craft and rescue boats**

1 Survival craft

1.1 Cargo ships shall carry:

.1 one or more totally enclosed lifeboats complying with the requirements of section 4.6 of the Code of such aggregate capacity on each side of the ship as will accommodate the total number of persons on board; and

.2 in addition, one or more inflatable or rigid liferafts, complying with the requirements of section 4.2 or 4.3 of the Code, of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, and of such aggregate capacity as will accommodate the total number of persons on board. If the liferaft or liferafts are not of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, the total capacity available on each side shall be sufficient to accommodate the total number of persons on board.

1.2 In lieu of meeting the requirements of paragraph 1.1, cargo ships may carry:

.1 one or more free-fall lifeboats, complying with the requirements of section 4.7 of the Code, capable of being free-fall launched over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board; and

.2 in addition, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code, on each side of the ship, of such aggregate capacity as will accommodate the total number of persons on board. The liferafts on at least one side of the ship shall be served by launching appliances.

1.3 In lieu of meeting the requirements of paragraph 1.1 or 1.2, cargo ships of less than 85 m in length other than oil tankers, chemical tankers and gas carriers, may comply with the following:

.1 they shall carry on each side of the ship, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code and of such aggregate capacity as will accommodate the total number of persons on board;

.2 unless the liferafts required by paragraph 1.3.1 are of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, additional liferafts shall be provided so that the total capacity available on each side will accommodate 150% of the total number of persons on board;

.3 if the rescue boat required by paragraph 2 is also a totally enclosed lifeboat complying with the requirements of section 4.6 of the Code, it may be included in the aggregate capacity required by paragraph 1.3.1, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board; and

.4 in the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side, including any which are of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, to accommodate the total number of persons on board.

1.4 Cargo ships where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than 100 m shall carry, in addition to the liferafts required by paragraphs 1.1.2 and 1.2.2, a liferaft stowed as far forward of aft, or one as far forward and another as far aft, as is reasonable and practicable. Such liferaft or liferafts may be securely fastened so as to permit manual release and need not be of the type which can be launched from an approved launching device.

1.5 With the exception of the survival craft referred to in paragraph 11 of schedule I, all survival craft required to provide for abandonment by the total number of persons on board shall be capable of being launched with their full complement of persons and equipment within a period of 10 min from the time the abandon ship signal is given.

1.6 Chemical tankers and gas carriers carrying cargoes emitting toxic vapours or gases\*1 shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, lifeboats with a self-contained air support system complying with the requirements of section 4.8 of the Code.

1.7 Oil tankers, chemical tankers and gas carriers carrying cargoes having a flash point not exceeding 60°C (closed cup test) shall carry, in lieu of totally enclosed lifeboats complying with the requirements of section 4.6 of the Code, fire-protected lifeboats complying with the requirements of section 4.9 of the Code.

1.8 Notwithstanding the requirements of paragraph 1.1, bulk carriers as defined in regulation IX/1.6 constructed on or after 1 July 2006 shall comply with the requirements of paragraph 1.2.

## 2 Rescue boats

Cargo ships shall carry at least one rescue boat complying with the requirements of section 5.1 of the Code. A lifeboat may be accepted as a rescue boat, provided that it and its launching and recovery arrangements also comply with the requirements for a rescue boat.

3 In addition to their lifeboats, all cargo ships constructed before 1 July 1986 shall carry:

.1 one or more liferafts capable of being launched on either side of the ship and of such aggregate capacity as will accommodate the total number of persons on board. The liferaft or liferafts shall be equipped with a lashing or an equivalent means of securing the liferaft which will automatically release it from a sinking ship; and

.2 where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than 100 m, in addition to the liferafts required by paragraph 3.1, a liferaft stowed as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. Notwithstanding the requirements of paragraph 3.1, such liferaft or liferafts may be securely fastened so as to permit manual release.

## 2. Personal life-saving appliances

### 1 Lifebuoys

1.1 Cargo ships shall carry not less than the number of lifebuoys complying with the requirements of paragraph 2 of schedule I and section 2.1 of the Code prescribed in the following table:

| Length of ship in metres | Minimum number of lifebuoys |
|--------------------------|-----------------------------|
| under 100                | 8                           |
| 100 and under 150        | 10                          |
| 150 and under 200        | 12                          |
| 200 and over             | 14                          |

1.2 Self-igniting lights for lifebuoys on tankers required by paragraph 2 of schedule I shall be of an electric battery type.

### 2 Lifejacket lights

2.1 This paragraph applies to all cargo ships.

2.2 On cargo ships, each lifejacket shall be fitted with a lifejacket light complying with the requirements of paragraph 2.2.3 of the Code.

2.3 Lights fitted on lifejackets on board cargo ships prior to 1 July 1998 and not complying fully with paragraph 2.2.3 of the Code may be accepted by the Director General of Maritime Administration until the lifejacket light would normally be replaced or until the first periodical survey after 1 July 2001, whichever is the earliest.

### 3 Immersion suits

3.1 This paragraph applies to all cargo ships. However, with respect to cargo ships constructed before 1 July 2006, paragraphs 3.2 to 3.5 shall be complied with not later than the first safety equipment survey on or after 1 July 2006.

3.2 An immersion suit of an appropriate size, complying with the requirements of section 2.3 of the Code shall be provided for every person on board the ship. However, for ships other than bulk carriers, as defined in regulation IX/1, these immersion suits need not be required if the ship is constantly engaged on voyages in warm climates where, in the opinion of the Administration, immersion suits are unnecessary.

3.3 If a ship has any watch or work stations which are located remotely from the place or places where immersion suits are normally stowed, including remotely located survival craft carried in accordance with paragraph 1 of schedule II additional immersion suits of an appropriate size shall be provided at these locations for the number of persons normally on watch or working at those locations at any time.

3.4 Immersion suits shall be so placed as to be readily accessible and their position shall be plainly indicated.

3.5 The immersion suits required by this paragraph may be used to comply with the requirements of paragraph 2 of schedule I.

### **3. Survival craft embarkation and launching arrangements**

1 Cargo ship survival craft embarkation arrangements shall be so designed that lifeboats can be boarded and launched directly from the stowed position and davit-launched liferafts can be boarded and launched from a position immediately adjacent to the stowed position or from a position to which the liferaft is transferred prior to launching in compliance with the requirements of paragraph 8 of schedule I.

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