

DEPARTMENT OF TRANSPORT

No. R. 5493

GG 51486

01 November 2024

MERCHANT SHIPPING ACT, 1951 (ACT NO. 57 OF 1951)

THE DRAFT LIFE-SAVING APPLIANCES AND ARRANGEMENTS AND FIRE APPLIANCES REGULATIONS, 2024

The Minister of Transport intends, in terms of section 356(2)(a) of the Merchant Shipping Act, 1951 (Act No. 57 of 1951) and on the recommendation of the South African Maritime Safety Authority to review the Life-Saving Appliances Regulations, 1968 and promulgate Draft Life-Saving Appliances Regulations, 2024, as set out in the Schedule published in the South African Maritime Safety Authority website at [Draft Regulations \(samsa.org.za\)](https://www.samsa.org.za).

To facilitate stakeholder engagement on the Life-Saving Appliances Regulations, 2024, SAMSA will conduct various workshops around the country, including the following:

DATE	REGION	VENUE
13 November 2024	Western Region (Cape Town)	Southern Sun Cape Sun Strand Street, Cape Town
19 November 2024	Southern Region (Gqeberha)	Town Lodge Port Elizabeth Cnr Beach Road & Lodge Road Summerstrand, Gqeberha
27 November 2024	Eastern Region (Durban)	Garden Court Marine Parade 167 OR Tambo Parade, Durban

Electronic copies of the Draft Regulations are accessible on the SAMSA website at <https://www.samsa.org.za/Pages/SAMSADraftRegulation.aspx> and may also be requested from [Bulelani Ncanywa at bncanywa@samsa.org.za](mailto:bncanywa@samsa.org.za)

Interested persons are hereby invited to submit written comments on these draft regulations on or before the **20 December 2024** to the Chief Executive Officer: SAMSA, for the attention of:

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DEPARTMENT OF TRANSPORT

No. R.5493

GG 51486

01 November 2024

MERCHANT SHIPPING ACT, 1951 (ACT NO. 57 OF 1951)

**THE LIFE-SAVING APPLIANCES AND ARRANGEMENTS AND FIRE APPLIANCES
REGULATIONS, 2024**

I, Barbara Creecy, Minister of Transport hereby, in terms of section 356(1) of the Merchant Shipping Act, 1951 (Act No. 57 of 1951), repealed the Life-Saving Equipment Regulations, 1968 promulgated by Government Notice No. R. 141 of 2 February 1968, as amended by Government Notices Nos. R. 917 of 9 May 1975, R. 2205 of 21 November 1975, R. 516 of 21 March 1980, R. 2422 of 28 November 1980, R. 1022 of 30 May 1986, R. 423 of 17 March 1995, R. 925 of 7 June 1996, and R. 610 of 14 May 1999 and R. 565 of 17 June 2005 and, make the Regulations set out in the Schedule hereunder.

Ms. B. Creecy, MP
Minister of Transport
Date:

SCHEDULE

SCHEDULE

Arrangement of regulations

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Definitions

1. In these Regulations, the expression "the Act" means the Merchant Shipping Act, 1951 (Act No. 57 of 1951), and unless the context otherwise indicates, any word or expression used in these Regulations, to which a meaning has been assigned in the Act, bears the meaning so assigned, and –

'accommodation space' means a passenger space, corridor, lavatory, cabin, office, crew space, shop, isolated pantry and locker and any similar space;

'administration' means the Authority;

'anti-exposure suit' means a protective suit designed for use by a rescue boat crew or a marine evacuation system party;

'cargo space' means a space used for cargo, cargo oil tanks, tanks for other liquid cargo and trunks to such spaces;

'certificated person' means a person who holds a certificate of proficiency in survival craft issued under the authority of, or recognised as valid by, the Authority 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 recognised by the Authority of a State not a Party to that Convention for the same purpose as the convention certificate;

‘company’ means the owner of the ship or any other organisation or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the shipowner and who on assuming such responsibility has agreed to take over all the duties and responsibility imposed by the International Safety Management Code, as adopted in 1993 and “owner” has a corresponding meaning;

‘control station’ includes a space in which radio, main navigating or central fire-recording equipment or the emergency generator, is located;

‘crew space’ means crew accommodation space;

‘detection’ means the accurate determination of the location of a survivor or survival craft;

‘embarkation’ means mustering into survival craft, transfer, entering, seating, either by directly embarking into survival craft or using MES equipment such as a chute or platform;

‘embarkation ladder’ means a ladder provided at a survival craft embarkation station to permit safe access to survival craft after launching;

‘fire extinguisher’ provided in compliance with Part II, means a fire extinguisher complying with the requirements of regulation 105;

‘float-free launching’ means a method of launching a survival craft whereby the craft is automatically released from a sinking ship and is ready for use;

‘free-fall launching’ means a 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;

‘FSS Code’ means the International Code for Fire Safety Systems as defined in Chapter II-2 of the Safety Convention;

‘FTP Code’ means the International Fire Test Procedures Code, 2010 as defined in Chapter II-2 of the Safety Convention;

‘immersion suit’ means a protective suit which reduces the body-heat loss of a person wearing the suit in cold water and which complies with the requirements of regulation 42;

‘inflatable appliance’ means an appliance which depends upon non-rigid, gas-filled chambers for buoyancy which is normally kept uninflated until ready for use;

‘inflated appliance’ means an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is kept inflated and ready for use at all times;

‘international shore connection’ provided in compliance with Part II, means an international shore connection complying with the requirements of regulation 104;

‘launching appliance or arrangement’ means an appliance or a means of transferring a survival craft or rescue boat from its stowed position safely to the water, complying with the requirements of Chapter VI, section 6.1 of the LSA Code;

‘length’ means 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: Provided in a ship designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline;

‘lifeboat’ means a boat complying with the requirements of regulation 24;

‘lifebuoy’ means a lifebuoy complying with the requirements of regulation 27;

‘lifejacket’ means a lifejacket complying with the requirements of regulation 28;

‘line-throwing appliance’ means a line-throwing appliance complying with the requirements of regulation 29;

‘liferaft’ means a liferaft complying with the requirements of regulation 25;

‘lightest sea-going condition’ means a loading condition with the ship on 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;

‘LSA Code’ means the International Life-Saving Appliance Code as defined in Chapter III regulation 3 of the Safety Convention;

‘marine evacuation system’ is an appliance for the rapid transfer of persons from the embarkation deck of a ship to a floating survival craft and **“MES”** has a corresponding meaning;

‘mile’ means a nautical mile, the equivalent of 1852 meters;

‘moulded depth’ means the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side measured as follows:

- (a) in a wood and composite ship 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;

- (b) in a ship 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;
- (c) 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;

‘novel life-saving appliance or arrangement’ means a life-saving appliance or arrangement which embodies new features not fully covered by the provisions of chapter III of the Safety Convention or the Code, but which provides an equal or higher standard of safety;

‘oil fired boiler’ means any boiler wholly or partly fired by liquid fuel not being a domestic boiler of less than 250,000 B.T.U. per hour;

‘oil fuel unit’ means the equipment used for the preparation of oil fuel for delivery to an oil-fired boiler, or equipment used for the preparation for delivery of heated oil to an internal combustion engine, and includes any associated oil pressure pump, filter and heater dealing with oil at a pressure of more than 0.18 N/mm²;

‘passenger space’ means space provided for the use of passengers;

‘person’ means a person over the age of one year;

‘Polar Code’ means the International Code for Ships Operating in Polar Waters, as defined in Chapter XIV regulation 1 of the Safety Convention;

‘positive stability’ means the ability of a craft to return to its original position after the removal of a heeling moment;

‘recovery time’ for a rescue boat means the time required to raise the boat to a position where a person on board can disembark to the deck of the ship and 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 but does not include the time needed to lower the launching appliance into position to recover the rescue boat;

‘rescue boat’ means a boat contemplated in regulation 30, designed to rescue persons in distress and to marshal the survival craft;

‘retrieval’ means the safe recovery of a survivor;

‘ro-ro passenger ship’ means a passenger ship with ro-ro cargo spaces or special category spaces as defined in Chapter II-2 regulation 3 of the Safety Convention;

‘sailing ship’ includes a ship provided with sufficient sail area for navigation under sails alone, whether or not fitted with mechanical means of propulsion;

‘SAMFAS Code’ means the South African Maritime Code of Practice for Marine Fire Service Stations;

‘service space’ includes a galley, main pantry, laundry, store room, paint room, baggage room, mail room, bullion room, carpenters’ and plumbers’ workshop, and trunkway leading to such a space;

‘settling tank’ means a deep tank in the engine room used to separate heavy residues and water from the fuel by heat or gravity;

‘short international voyage’ means an international voyage—

- (a) 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; and
- (b) where 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 and 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;

‘survival craft’ means a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship;

‘tanker’ means a ship, other than a passenger ship, constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable, toxic or hazardous nature and includes a chemical tanker and a liquefied gas tanker;

‘thermal protective aid’ means a bag or suit made of waterproof material with low thermal conductance;

‘the Act’ means the Merchant Shipping Act, 1951 (Act No. 57 of 1951); and

‘tons’ in relation to the tonnage of a vessel, means gross tons.

Application

2.(1) Subject to subregulation (2), these Regulations apply to a vessel of 25 gross tons or more, and so apply to—

- (a) a vessel that is registered or licensed in the Republic wherever the vessel may be; and
- (b) any other vessel, when in the Republic or its territorial waters.

(2) These Regulations do not apply to -

- (a) vessels of less than 100 gross tons that are used solely for sport or recreation; and

(b) fishing vessels.

(3) The vessels in subregulation (1) are required to comply with these Regulations as follows:

- (a) Vessels required to comply with the Safety Convention – upon promulgation of these Regulations;
- (b) New vessels – upon promulgation of these Regulations;
- (c) Requirements of Part 1 of these Regulations – two years after promulgation of these Regulations;
- (d) Requirements of Part 2 of these Regulations – two years after promulgation of these Regulations; and
- (e) Existing vessel – upon registration onto the South African register - after promulgation of these Regulations.

(4) A provision of these Regulations does not apply to a vessel of South African nationality in the waters of a country other than the Republic where the provision is inconsistent with a law of that country which, by its terms, applies to the vessel when in the waters of that country.

(5) A ship may carry life-saving and fire appliances, in addition to that required by these Regulations, provided the additional appliances and equipment –

- (a) do not present a safety hazard;
- (b) are not detrimental to the seaworthiness of the ship;
- (c) comply with the requirements of these Regulations; and
- (d) where applicable, are type approved.

Classification of ships

3. (1) The vessels to which these Regulations apply are divided into the following classes:

(a) *Passenger ships*

Class I – A passenger ship engaged on voyages any of which are international voyages other than short international voyages;

Class II – A passenger ship, other than a ship of Class I, engaged on voyages any of which are short international voyages;

Class IIA – A passenger ship of 21 meters in length or over, other than a ship of Class V or VI, engaged on voyages of any kind other than international voyages;

Class III – Not yet allocated;

Class IV – Not yet allocated;

Class V – A passenger ship of 25 gross tons or over engaged only on voyages to sea in fine weather with not more than 40 persons on board, in the course of which voyages the ship is at no time more than 40 miles from the point of departure nor more than 15 miles from land; and

Class VI – A passenger ship which operates at a port or is engaged on voyages to sea in fine weather with not more than 250 persons on board, in the course of which voyages the

ship is at no time more than 15 miles from the point of departure nor more than 5 miles from land.

(b) Vessels other than passenger ships

Class VII — A ship, other than a ship of class VIIA, X, XI or XII engaged on voyages any of which are international voyages other than short international voyages;

Class VIIA — A ship employed as a fish processing or canning factory ship, or a ship engaged in the carriage of persons employed in the fish processing or canning industry;

Class VIII — A ship, other than a class XI or XII ship engaged on voyages in the Republic or on short international voyages;

Class IX — A tug, tender, lighter, dredger, barge or hopper which is employed at a port in the Republic and proceeds to sea for not more than 10 miles from the entrance to such port;

Class IXA — A tug, tender, lighter, dredger, barge or hopper which is employed at a port in the Republic and does not proceed to sea;

Class XI — A sailing ship, other than a class XII ship which proceeds to sea; and

Class XII — A pleasure vessel of 100 gross tons or over.

PART I LIFE-SAVING APPLIANCES

CHAPTER I — LIFE-SAVING APPLIANCES FOR THE RESPECTIVE CLASSES OF VESSELS

Compliance with the LSA Code

4. All life-saving appliances and arrangements shall comply with the applicable requirements of the LSA Code.

Compliance with the Polar Code

5. All vessels operating in polar waters as defined in the Safety Convention shall carry life-saving appliances and arrangements that comply with the applicable requirements of the Polar Code.

Operational readiness maintenance and inspection for life-saving appliances and arrangements

6.(1) (a) Before a vessel leaves the port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use and shall comply with the general requirements for life-saving appliances in Chapter I section 1.2 of the LSA Code.

- (b) For the purpose of this regulation, "voyage" includes-
- (i) when the vessel has passengers on board;
 - (ii) is engaged in cargo and bunkering operations, both including where the vessel is alongside.

(2) For operational readiness, maintenance and inspection, all ships shall comply with the operational readiness maintenance and inspection requirements of Chapter III regulation 20 of the Safety Convention and the LSA Code.

(3) The maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear, shall be in accordance with the requirements as defined in Chapter III regulation 3 of the Safety Convention.

(4) Maintenance, testing and inspections of life-saving appliances shall be carried out in a manner having due regard to ensuring reliability of such appliances in accordance with Chapter III, regulation 20 of the Safety Convention.

(5) Instructions for on-board maintenance of life-saving appliances shall be provided in compliance with Chapter III regulation 36 of the Safety Convention.

(6) The Authority may accept, in compliance with the requirements of subregulation (3), a shipboard planned maintenance programme, which includes the requirements of Chapter III regulation 36 of the Safety Convention.

Class I Ships

7. (1) A Class I ship shall carry life-saving appliances and arrangements in accordance with the requirements of Chapter III of the Safety Convention as applicable to passenger ships and the LSA Code.

(2) A Class I ship shall carry survival craft and rescue boats in accordance with Chapter III regulation 21 of the Safety Convention.

Class II Ships

8. (1) A Class II ship shall, subject to the provisions of subregulation (2), be fitted with life-saving appliances and arrangements in accordance with the requirements of Chapter III of the Safety Convention applicable to passenger ships and the LSA Code.

(2) The Authority may permit any Class II ship, being a ship which is subdivided in accordance with the requirements of the Construction Regulations, to carry persons in excess of the lifeboat capacity provided on board that ship in compliance with subregulation (1): Provided that—

- (a) if such ship is permitted by the Authority in terms of section 200(3) of the Act, to proceed to sea from a port in the Republic on an international voyage not exceeding 1,200 miles between the last port of call in the Republic and the final port of destination, such a ship shall carry lifeboats attached to davits affording accommodation for at least 75 per cent of the persons on board the ship;
- (b) in all cases liferafts shall be carried so that the total number of lifeboats together with such liferafts shall be sufficient to accommodate the total number of persons which the ship is certified to carry; and
- (c) in any such ship in which a two-compartment standard of subdivision is not achieved throughout by virtue of the application of the provisions of to the Construction Regulations, there shall be provided liferafts of sufficient aggregate capacity to accommodate 10 percent of the total number of persons which the

ship is certified to carry, such liferafts being additional to those required to be provided in compliance with paragraph (b).

(3) A Class II ship shall carry survival craft and rescue boats in accordance with Chapter III regulation 21 of the Safety Convention.

Class IIA Ships

9. (1) The provisions of regulation 6 shall apply also to a Class IIA ship of over 500 gross tons.

(2) A Class IIA ship of less than 500 gross tons shall carry at least the number of lifebuoys indicated in the following table:

<i>Length of ship in meters</i>	<i>Minimum number of lifebuoys</i>
Under 24	4
24 to 60	8
60 or over, but under 121	12
121 or over, but under 182	18
182 or over, but under 243	24
243 or over	30

- (3) (a) Not less than half of the lifebuoys required to be carried in accordance with subregulation (2) shall be provided with self-igniting lights;
- (b) at least half of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoys shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

Class III Ships

10. Not yet allocated.

Class IV Ships

11. Not yet allocated

Class V Ships

12. (1) A Class V ship shall carry liferafts of sufficient capacity to accommodate all persons on board the ship.

- (2) (a) A Class V ship shall carry at least eight lifebuoys.
- (b) Not less than half of the lifebuoys required to be carried in accordance with paragraph (a) shall be provided with self-igniting lights;
- (c) In no case less than two of the lifebuoys in paragraph (b) shall be provided with self-activating smoke signals and the lifebuoys shall be carried and so fitted in

accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(3) A Class V ship shall carry a lifejacket for every person on board the ship.

(4) A Class V ship shall carry a line-throwing appliance.

(5) A Class V ship of 24 metres or more in length shall be equipped with a rescue boat and a launching appliance or arrangement.

Class VI Ships

13. (1) A Class VI ship shall carry liferafts for all persons on board the ship.

(2) A Class VI ship of less than 24 meters in length, shall carry at least four lifebuoys.

(3) A Class VI ship of 24 meters or over in length shall carry at least eight lifebuoys.

(4) (a) Not less than half of the lifebuoys required in subregulation (1) and (2) to be carried shall be provided with self-igniting lights.

(b) At least half of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(5) A Class VI ship shall carry one lifejacket for every person on board the ship.

(6) A Class VI ship shall carry a line-throwing appliance.

(7) A Class VI ship of 45 metres or more in length shall be equipped with a rescue boat and a launching appliance or arrangement.

Class VII Ships

14. (1) A Class VII ship of 500 gross tons or over shall comply with the requirements of Chapter III of the Safety Convention as applicable to cargo ships and the LSA Code.

(2) A Class VII ship of less than 500 gross tons, shall carry either—

(a) the lifeboats prescribed in subregulation (1) for a ship of 500 gross tons or over and one or more liferafts of sufficient aggregate capacity to accommodate all persons on board the ship and where such a ship carries 16 persons or more on board, shall carry at least two liferafts; or

(b) a lifeboat or a rescue boat which shall be capable of being launched on one side of the ship, and at least two liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship.

(3) Liferafts carried in accordance with subregulation (4), shall be so stowed that they can be readily transferred to the water on either side of the ship.

(4) A Class VII ship shall carry portable radio equipment which shall comply with the requirements of regulation 45.

(5) A Class VII ship of less than 500 gross tons shall carry lifebuoys in accordance with the requirements of Chapter III regulation 32 of the Safety Convention as applicable to cargo ships and the LSA Code.

- (6) (a) Not less than half of the lifebuoys required in subregulation (5) to be carried shall be provided with self-igniting lights.
- (b) At least half of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(7) A Class VII ship of less than 500 gross tons shall carry one lifejacket for every person on board the ship.

(8) A Class VII ship of less than 500 gross tons shall carry a line-throwing appliance.

Class VIIA Ships

15. (1) A Class VIIA ship of 500 gross tons or over shall comply with the requirements of the Chapter III of the Safety Convention as applicable to cargo ships and the LSA Codes.

- (2) A Class VIIA ship of less than 500 gross tons, shall carry either—
 - (a) the lifeboats prescribed in subregulation (1) for a ship of 500 gross tons or over and one or more liferafts of sufficient aggregate capacity to accommodate all persons on board the ship and where such a ship carries 16 persons or more on board, shall carry at least two liferafts; or
 - (b) a lifeboat or a rescue boat which shall be capable of being launched on one side of the ship, and at least two liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship.

(3) A Class VIIA ship of less than 500 gross tons shall carry lifebuoys in accordance with the requirements of Chapter III regulation 32 of the Safety Convention as applicable to cargo ships and the LSA Code.

- (4) (a) Not less than half of the lifebuoys required in subregulation (3) to be carried shall be provided with self-igniting lights.
- (b) At least half of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

Class VIII Ships

16. The provisions of regulation 14 shall apply also to a Class VIII ship.

Class IX Ships

17. (1) A Class IX ship, other than a dumb lighter, barge or hopper which is towed to sea, shall carry a lifeboat or a rescue boat which shall be capable of being launched on one side of the ship: Provided a ship of less than 24 metres may have alternative equipment, arrangements and procedures for recovery of persons from the water as prescribed in regulation 17-1 of Chapter III of the Safety Convention.

(2) A Class IX ship, other than a dumb lighter, barge or hopper which is towed to sea, shall carry liferafts of sufficient capacity to accommodate the total number of persons on board the ship, and so stowed that they can readily be transferred to the water on either side of the ship.

(3) A Class IX ship shall carry at least two lifebuoys.

(4) (a) Not less than half of the lifebuoys required in subregulation (3) to be carried shall be provided with self-igniting lights.

(b) At least one of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(5) A Class IX ship shall carry one lifejacket for each person on board the ship.

Class IXA Ships

18. (1) A Class IXA ship shall carry at least two lifebuoys.

(2) (a) Not less than half of the lifebuoys required in subregulation (1) to be carried shall be provided with self-igniting lights.

(b) At least one of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(3) A Class IXA ship shall carry one lifejacket for every person on board the ship.

Class XI Ships

19. (1) A Class XI ship shall carry either—

(a) at least two lifeboats, with launching arrangements, so arranged that there is at least one lifeboat on each side of the ship, the lifeboats on each side of the ship being of sufficient aggregate capacity to accommodate one half of the total number of persons on board the ship, and liferafts on the following scale:

(i) a ship with less than 16 persons on board—at least one liferaft; and

(ii) a ship with 16 or more persons on board—at least two liferafts, of sufficient aggregate capacity to accommodate the total number of persons on board the ship; or

- (b) a lifeboat which shall be capable of being launched on one side of the ship, with launching arrangements, and at least two liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship.

(2) Liferafts carried in accordance with subregulation (1), shall be so stowed that they can be readily transferred to the water on either side of the ship.

- (3) (a) In a Class XI ship which carries the equipment required by subregulation (1)(a), the lifeboat launching arrangements shall be in accordance with Chapter III regulations 9, 11 and 12 of the Safety Convention and Chapter VI section 6.1 of the LSA Code.

- (b) In a Class XI ship which carries a lifeboat or rescue boat in accordance with subregulation (1)(b), the launching arrangements shall be in accordance with Chapter III regulations 9, 11 and 12 of the Safety Convention and Chapter VI section 6.1 of the LSA Code.

(4) A Class XI ship shall carry at least four lifebuoys.

- (5) (a) Not less than half of the lifebuoys required in subregulation (4) to be carried shall be provided with self-igniting lights.

- (b) At least one of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(6) A Class XI ship shall carry one lifejacket for every person on board the ship.

(7) A Class XI ship of 25 gross tons or over shall carry a line-throwing appliance.

Class XII Ships

20. (1) A Class XII ship of 100 gross tons or over shall carry—

- (a) at least two liferafts of sufficient aggregate capacity to accommodate twice the total number of persons on board the ship;
- (b) at least four lifebuoys; and
- (c) a line-throwing appliance.

- (2) (a) Not less than half of the lifebuoys required to be carried in accordance with subregulation (1)(b) shall be provided with self-igniting lights;

- (b) at least one of the lifebuoys in paragraph (a) shall be provided with self-activating smoke signals and the lifebuoy shall be carried and so fitted in accordance with the requirements of Chapter III regulation 7.1 of the Safety Convention and Chapter II section 2.1 of the LSA Code.

(3) In lieu of the requirements of subregulation (1) (b), a vessel under 100 gross tons may carry a danbuoy.

(4) Liferafts carried in compliance with this regulation, shall be so stowed that they can be readily transferred to the water on either side of the ship.

(5) A Class XII ship carry one lifejacket for every person on board the ship.

Passenger Ships (Additional Requirements)

21. (1) A passenger ship engaged on international voyages which are not short international voyages and passenger ship engaged on short international voyages shall comply with Chapter III regulation 21 of the Safety Convention.

(2) A passenger ship shall comply with Chapter III regulations 22, 23, 24, 25, 27, 29 and 30 of the Safety Convention.

(3) A ro-ro passenger ship shall comply with Chapter III regulation 26 and 28 of the Safety Convention.

Cargo Ships (Additional Requirements)

22. A cargo ship shall comply with Chapter III regulation 31, 32 and 33 of the Safety Convention.

CHAPTER II—REQUIREMENTS FOR LIFESAVING APPLIANCES

Application and Interpretation

23. (1) The requirements of the LSA Code apply to the provisions of this Chapter II.

(2) Where there is conflict between the LSA Code and the provisions of this Chapter, these Regulations shall prevail.

General requirements for lifeboats

24. A lifeboat shall comply with the applicable requirements of regulations 8 to 13 and 16 inclusive of Chapter III of the Safety Convention and Chapter IV, section 4.4 to 4.9 inclusive of the LSA Code.

Liferafts, launching and embarkation appliances

25. (1) Liferafts, launching and embarkation appliances shall comply with the applicable requirements of either subregulation (3) and (4) or subregulation (5) and Chapter III of the Safety Convention and Chapter IV, section 4.1 to 4.3 inclusive and Chapter VI section 6.1.5 of the LSA Code.

(2) The appliances in subregulation (1) and the hydrostatic release unit shall be serviced in accordance with regulation 20 Chapter III of the Safety Convention.

(3) Subject to the provisions of subregulation (4) every inflatable liferaft shall comply with the requirements of Chapter IV, section 4.1 to 4.2 and Chapter VI section 6.1.5 of the LSA Code.

(4) In a class V, VI or IX ship of less than 24 meters in length, the requirements of subregulation (1) may be modified as follows:

- (a) The height prescribed in section 4.1.1.2 of Chapter IV of the LSA Code may be the height equivalent to that of the deck on which the liferaft is stowed above the ship's light water line, but in no case less than six meters;
- (b) Means for collecting rain referred to in section 4.1.1.5 of Chapter IV of the LSA Code, shall not be required;
- (c) The method for insulating the floor of the liferaft against cold as referred to in section 4.2.2.2 of Chapter IV of the LSA Code, shall not be required to be complied with;
- (d) The minimum carrying capacity of a liferaft required by section 4.1.2 of Chapter IV of the LSA Code of six persons, may not be less than four persons, provided that a liferaft which is deemed fit to accommodate less than six persons shall only be carried on a ship on which the total number of persons on board is not more than the number of persons the liferaft is designed to accommodate;
- (e) The liferaft shall be capable of operating throughout an air temperature range prescribed in Chapter I section 1.2 of the LSA Code; and
- (f) In a Class VI ship, the requirement for a canopy of the liferaft to protect the occupants referred to in section 4.1.1.5 of Chapter IV of the LSA Code, shall not be required.

(5) Every rigid liferaft shall comply with the requirements of section 4.1 and 4.3 of the LSA Code.

Marking of lifeboats, rescue boats and liferafts

26. (1) The markings of a lifeboat shall be as prescribed in section 4.4.9 of the LSA Code.

(2) The number of persons which a liferaft that complies with regulation 25(3) and (4) is deemed fit to accommodate, shall be clearly marked as prescribed in sections 4.2.6.3 and 4.2.7 of the LSA Code.

(3) A liferaft which complies with regulation 25(5), shall be marked as prescribed in section 4.3.6 of the LSA Code.

Lifebuoys and danbuoys

27. (1) A lifebuoy shall comply with the requirements prescribed in Chapter II section 2.1 of the LSA Code.

(2) A danbuoy shall comply with the applicable ISO Standards.

Lifejackets

28. (1) A lifejacket kept on board a vessel in accordance with these Regulations shall—

- (a) in the case of a lifejacket supplied in the Republic or in a country the government of which is not a contracting government to the Safety Convention, comply with the requirements specified by the Authority; and

- (b) in the case of a lifejacket supplied in a country the government of which is such a contracting government, comply with the requirements prescribed by law for lifejackets on vessels registered or licensed in that country.

(2) A lifejacket kept on board a vessel in accordance with these Regulations shall comply with South African National Standards (SANS) and as specified by the Authority as follows—

- (a) for a Class I and II ship, shall be compliant with the requirements of Chapter III regulations 7.2, 22.2, 22.3, 26.5 of the Safety Convention and Chapter II section 2.2 of the LSA Code;
- (b) in a Class IIA, VII or VIIA ship, and in a Class VIII ship of 500 gross tons or over, be compliant with the requirements of Chapter III regulations 7.2 and 32.2 of the Safety Convention and Chapter II section 2.2 of the LSA Code; and
- (c) in a Class V, VI or IX, IXA, XI and XII ship, be compliant with the requirements specified by the Authority.

Line-throwing appliances

29. A line-throwing appliance shall comply with the requirements of requirements of Chapter III regulation 18 of the Safety Convention and Chapter VII section 7.1 of the LSA Code.

Approved rescue boat

30. In order to be approved, a rescue boat shall be constructed, equipped and tested in accordance with the provisions of Chapter V section 5.1 of the LSA Code.

Evaluation, Production tests, testing and approval of life-saving appliances and arrangements

31. (1) Except as provided in subregulations (5) and (6), life-saving appliances and arrangements required by these Regulations shall be approved by the Authority in accordance with Chapter III regulation 4 of the Safety Convention.

(2) Before giving approval to life-saving appliances and arrangements, the Authority shall ensure that such life-saving appliances and arrangements—

- (a) are tested, to confirm that they comply with the requirements of Chapter III of the Safety Convention and the LSA Code; or
- (b) have successfully undergone tests, to the satisfaction of the Authority, which are substantially equivalent to the requirements of Chapter III of the Safety Convention and the LSA Code.

(3) Before giving approval to novel life-saving appliances or arrangements, the Authority shall ensure that such—

- (a) appliances provide safety standards at least equivalent to the requirements of Chapter III of the Safety Convention and the LSA Code and have been evaluated and tested based on the guidelines developed under the Safety Convention; or

- (b) arrangements have successfully undergone an engineering analysis, evaluation and approval in accordance with Chapter III regulation 38 of the Safety Convention.

(4) Procedures adopted by the Authority for approval shall also include the conditions for continued approval or withdrawal.

(5) Before accepting life-saving appliances and arrangements that have not been previously approved by the Authority, the Authority shall be satisfied that life-saving appliances and arrangements comply with the requirements of Chapter III of the Safety Convention and the LSA Code.

(6) Life-saving appliances required by Chapter III of the Safety Convention for which detailed specifications are not included in the LSA Code shall be to the satisfaction of the Authority.

(7) The Authority shall require life-saving appliances to be subjected to such production tests as are necessary to ensure that the life-saving appliances are manufactured to the same standard as the approved prototype.

Training manual and on-board training aids

32. (1) A training manual shall be in accordance with Chapter III, regulation 35 of the Safety Convention.

(2) The training manual in subregulation (1) shall be written in the English language.

Instructions for on-board maintenance

33. Instructions for on-board maintenance of life-saving appliances shall be in accordance with Chapter III, regulation 36 of the Safety Convention.

Muster list and emergency instructions

34. A muster list shall be in accordance with Chapter III, regulation 8 and 37 of the Safety Convention.

Alternative design and arrangements

35. Life-saving appliances and arrangements may deviate from the requirements set out in this Chapter, provided that the alternative design and arrangements meet the intent of the requirements prescribed in Chapter III regulation 38 of the Safety Convention.

CHAPTER III—PROVISION OF EQUIPMENT AND RATIONS IN LIFE. BOATS, RESCUE BOATS AND LIFERAFTS.

Equipment for lifeboats and rescue boats

36. (1) The equipment of a lifeboat carried in a ship shall be carried and secured in accordance with section 4.4.7 and the applicable provisions of 4.4.8 of the LSA Code.

(2) The equipment of a rescue boat carried in a Class VII ship, in a Class VIIA ship, in a Class VIII ship, in a Class IX ship, and in a Class XI ship, all of 500 GT or over, shall be so secured or stowed as prescribed in 5.1.2 of the LSA Code.

(3) The equipment of a rescue boat carried in a Class VI ship and in a Class VIIA ship of less than 500 GT shall be so secured or stowed within a rescue boat that it cannot be dislodged from its position should the rescue boat capsize and be as follows:

- (a) two buoyant oars with thole-pins or crutches for each oar, or two paddles;
- (b) one bailer and two sponges;
- (c) one buoyant painter of adequate length and size, fitted in the bows as a slip painter;
- (d) one waterproof torch together with spare batteries and a bulb in a watertight container;
- (e) one buoyant safety knife;
- (f) a whistle or equivalent sound signal;
- (g) a first aid kit in a watertight container;
- (h) six red hand-held distress flares;
- (i) two buoyant four-minute orange distress smoke signals;
- (j) one portable hand radio which is kept in a portable but watertight casing in order to facilitate communication with the parent ship and for which, when not in use, means shall be provided on the parent ship to keep the battery of the portable hand radio fully charged at all times;
- (k) one lifejacket per person;
- (l) one safety boat hook;
- (m) one efficient bellows or pump;
- (n) one radar reflector; and
- (o) a list of instructions on the use of the rescue boat supplied by the manufacturer.

Rations for lifeboats

37. A lifeboat carried in a ship, except in a Class V, VI and IX ship, shall be provided with at least the rations, carried and secured as prescribed in section 4.4.8.12 and 4.4.8.9 of the LSA Code.

Special equipment for certain motor lifeboats

38. (1) In a Class I or VIIA ship, a motor lifeboat which is required to comply Chapter III of the Safety Convention, shall be provided with the following equipment:

- (a) radio equipment which shall comply with the requirements of the Merchant Shipping (Radio Installations) Regulations, 2002, and in addition the following provisions shall apply thereto:
 - (i) the radio equipment shall be installed in a cabin large enough to accommodate both the apparatus and the person using the equipment;

- (ii) the arrangements shall be such that the efficient operation of the transmitter and receiver shall not be impaired through interference from the engine of the motor lifeboat whether a battery is on charge or not; and
- (iii) the radio battery shall not be used to supply power to any engine starting motor or ignition system; and
- (b) a dynamo fitted to the engine of the motor lifeboat and capable of recharging all batteries in the lifeboat.

(2) In a Class I, II or VIIA ship, a motor lifeboat which is required in terms of regulation 7, 8 or 15, shall be provided with a searchlight which shall include a lamp of at least 80 watts, capable of working for at least three hours continuously, an efficient reflector and a source of power which will give effective illumination of a light-coloured object having a width of about two meters at a distance of 200 meters for a total period of 6 hours.

Equipment and rations for liferafts

39. (1) Subject to the provisions of subregulation (2), the equipment and rations provided in a liferaft carried in a ship shall be as prescribed in 4.1.5 of the LSA Code.

(2) Liferafts carried on Class V and VI ships and on a Class IX ship under 500 gross tons shall not be required to be provided with the following:

- (a) for liferafts which are fit to accommodate not more than 12 persons: one safety knife and one bailer; for liferafts which are fit to accommodate 13 persons or more: two safety knives and two bailers;
- (b) two sponges;
- (c) two sea anchors, one permanently attached to the liferaft and one spare with line;
- (d) two paddles;
- (e) one repair outfit capable of repairing punctures in buoyancy compartments;
- (f) one topping-up pump or bellows;
- (g) one daylight signalling mirror and one signalling whistle or alternatively any signalling device approved by the Authority; and
- (h) instructions printed in the English language on how to survive in the liferaft.

CHAPTER IV—STOWAGE AND HANDLING OF LIFE-SAVING APPLIANCES

General provisions relating to the stowage and handling of life-saving appliances

40. (1) The arrangement of each lifeboat, rescue boat and liferaft, shall be such that it will not interfere with the operation of other lifesaving appliances or impede in any way their prompt handling or the marshalling of persons at the launching stations or their embarkation.

(2) Lifeboats, rescue boat and liferaft shall be so stowed that they can all be launched safely in the shortest possible time, and the overall launching period shall not exceed 30 minutes in the case of—

- (a) a Class I, II or IIA ship; and

- (b) a Class VIIA ship which carries liferafts under launching appliances.

Stowage and handling of lifeboats and rescue boats;

41. The stowage of a lifeboat or a rescue boat carried in a ship shall be as prescribed in regulations 12, 13, 14, 16, 17, 24 and 31 of Chapter III of the Safety Convention.

CHAPTER V—MISCELLANEOUS PROVISIONS

Stowage, design and handling of liferafts, lifejackets, immersion suits, anti-exposure suits, rescue boats and marine evacuation systems

42. (1) All life-saving appliances required in this Part shall comply with the requirements of Chapter III regulation 4 of the Safety Convention and Chapter I section 1.2 of the LSA Code.

(2) All life-saving appliances required in this Part shall be periodically inspected and maintained in accordance with Chapter III regulation 36 of the Safety Convention.

(3) The stowage and design of a liferaft carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulations 13, 16, 24 and 31.1.4 of the Safety Convention.

(4) In a Class I, II, IIA or VIIA ship which carries liferafts in accordance with Chapter III of the Safety Convention, there shall be provided for such liferafts launching appliances complying with the requirements of Chapter IV section 4.1 to 4.3 and Chapter VI, section 6.1.5 of the LSA Code.

(5) The stowage and design of a lifebuoy carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulation 7.1 of the Safety Convention and Chapter II, section 2.1 of the LSA Code.

(6) The stowage and design of lifejackets carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulation 7.2 of the Safety Convention, provided that Class I and II ship shall in addition, comply with regulation 22.2 and 26.5 of the Safety Convention and Chapter II, section 2.2 of the LSA Code.

- (7) (a) The stowage and design of immersion suits and anti-exposure units carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulation 7.3 of the Safety Convention and Chapter II section 2.3 and 2.4 of the LSA Code.
- (b) An immersion suit which complies with the requirements of regulation 30 in addition to those of Chapter II, section 2.3 of the LSA Code may be treated also as a lifejacket.

(8) The stowage and design of rescue boats carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulation 14 of the Safety Convention and Chapter V, section 5.1 of the LSA Code.

(9) The stowage and design of marine evacuation systems carried in a ship shall be as prescribed in the applicable provisions of Chapter III regulation 15 of the Safety Convention and Chapter VI, section 6.2 of the LSA Code.

Embarkation into survival craft, rescue boats, launching and recovery arrangements

43. (1) Arrangements shall be made to ensure that it is possible to effect embarkation into a survival craft rapidly and in good order as prescribed in Chapter III regulation 11, 23, 33 of the Safety Convention.

- (2) (a) The launching and recovery arrangements of survival craft shall be in accordance with the requirements prescribed in Chapter III regulations 12 and 16 of the Safety Convention.
- (b) The embarkation, launching and recovery arrangements of a rescue boat shall be in accordance with the requirements prescribed in Chapter III regulations 12 and 17 of the Safety Convention.

Manning of survival craft and supervision

44. (1) On a ship, there shall be sufficient number of crew members who may be deck officers or certificated persons in charge of the survival craft and duties, as prescribed in Chapter III regulation 10 of the Safety Convention.

(2) In a Class I, II or IIA ship, a person capable of working the radio equipment and searchlight equipment, shall be assigned to each lifeboat carrying such equipment.

(3) In a ship in which motor lifeboats are carried, a person capable of working the motor shall be assigned to each motor lifeboat.

Portable radio equipment

45. (1) The portable radio equipment required to be carried in compliance with regulation 14(4) and Chapter IV regulation 7 of the Safety Convention, shall comply with such of the requirements of the Merchant Shipping (Radio Installations) Regulations, 2002, as apply thereto, and shall be kept in a suitable place ready to be moved into a lifeboat or a liferaft in case of emergency.

(2) In a ship where the disposition of superstructures or deck houses is such as to involve substantial fore and aft separation of the main transmitter and lifeboats portable radio equipment shall be kept in the vicinity of those lifeboats or liferafts which are furthest away from the main transmitter.

(3) Two-way VHF radiotelephone apparatus shall be provided on a passenger ship and every cargo ship as prescribed in Chapter IV regulation 7 of the Safety Convention.

Electrically operated signals, on-board communications, alarm systems and public address systems

- 46.(1)** All vessels, except for Class XI and XII ship shall be provided with –
- (a) electrically operated signals throughout the ship, controlled from the bridge, for summoning the crew and passengers to muster stations;
 - (b) two-way communication for use in an emergency comprising of either fixed or portable equipment or both between emergency control stations, muster and embarkation stations and strategic positions on board; and
 - (c) a general emergency alarm system complying with the requirements of the LSA Code for summoning passengers and crew to the muster stations and to initiate the actions included in the muster list as prescribed in Chapter III regulation 6 of the Safety Convention.

(2) In addition to the requirements of this regulation, a passenger ship shall be fitted with a public address system, approved by the Authority, as prescribed in Chapter III regulation 6 of the Safety Convention.

Electric lighting

- 47. (1)** (a) In a Class I, II, IIA, V and VI ship, an electric lighting system shall be provided throughout the ship and in particular upon the decks from which lifeboats and liferafts are embarked as prescribed in Chapter II-1 regulation 41 of the Safety Convention.
- (b) Provision shall also be made in every such ship for the electric lighting of the launching gear and of the lifeboats, and of the liferaft launching appliances where provided and the liferafts which they serve, during the preparation for and process of launching and also for illuminating the water into which the lifeboats and liferafts served by launching appliances are launched until the process of launching is completed, and for lighting the stowage position of liferafts for which launching appliances are not provided.
 - (c) The lighting shall be operated from the ship's main generating plant and shall be as prescribed in Chapter II-1 regulation 42 of the Safety Convention and so arranged that power may be supplied from the emergency source of electric power referred to in regulation 42 of the Construction Regulations, 1968.

(2) In a Class VII, VIIA, VIII, IX, IXA, XI or XII ship of 500 gross tons or over, provision shall be made for the electric lighting of the launching gear and of the lifeboats and of the liferaft launching appliances, in accordance with Chapter II-1 regulation 43 of the Safety Convention.

(3) In a Class VII, VIIA or VIII, IX, IXA, XI or XII ship to which subregulation (2) does not apply, means shall be provided for the electric lighting of the launching gear and lifeboats or boats during the preparation for and process of launching and also for the lighting of the stowage position of the liferafts, from the ship's main generating plant and shall be so arranged that power may be supplied from the emergency source.

Vessels' distress signals and list of persons on board

- 48. (1)** *Distress signals—*

- (a) A Class I, II, IIA, V, VI, VII, VIIA, VIII or IX ship shall carry at least 12 rocket parachute distress flares which shall comply with the requirements of Chapter III regulation 6.3 of the Safety Convention.
 - (b) A Class XI or XII ship of 100 tons or over shall carry at least 12 rocket parachute distress flares which shall comply with the requirements of Chapter III regulation 6.3 of the Safety Convention.
 - (c) A Class IXA ship shall carry at least two rocket parachute distress flares, two hand flares, six buoyant smoke signals which shall comply with the requirements of Chapter III, section 3.1, 3.2 and 3.3 of the LSA Code.
 - (d) All distress signals shall be as prescribed in Chapter III, section 3.1, 3.2 and 3.3 of the LSA Code.
 - (e) A copy of the illustrated table shall be readily available in a vessel in accordance with Chapter V regulation 29 of the Safety Convention.
- (2) *List of persons on board—*
- (a) The master of or company operating a ship who has entered into an agreement with the crew of the ship, shall make out and sign a list setting forth the name and address of each person on board the ship.
 - (b) The list referred to in paragraph (a) shall indicate in respect of each person on board whether that person is a member of the crew or a passenger.
 - (c) The list referred to in paragraph (a) shall be kept with the company and made available on demand by the proper officer, port authority or person nominated by the proper officer or port authority.

Survival craft posters and signs

49. Posters or signs shall be provided on or in the vicinity of survival craft and their launching controls and shall be in accordance with the requirement of Chapter III regulation 9 of the Safety Convention.

Recovery of persons from water

50. A ship shall have ship-specific plans and procedures for recovery of persons from the water, in accordance with Chapter III regulation 17 of the Safety Convention.

Emergency training and drills

51. Emergency training and drills on a passenger ship and on a cargo ship of 25 gross tons or over shall be in accordance with Chapter III regulation 19 and 30 of the Safety Convention.

CHAPTER VI—EQUIVALENTS, CONCESSIONS AND EXEMPTIONS

Equivalents and approval of types of life-saving equipment

52. (1) Where this Part requires that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a vessel, or that any particular provision shall be made, the Authority may allow any other design and arrangements, fitting, material, appliance, apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that vessel if the Authority is satisfied that such other fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this Part.

(2) The Authority may approve any type of life-saving equipment for use on a vessel belonging to the Republic which in the Authority's opinion complies with the requirements of this Part in accordance with Chapter I regulation 5 and Chapter III regulation 38 of the Safety Convention.

Exemption in respect of portable radio equipment

53. The Authority may exempt any Class II or IIA ship from the requirements of regulation 8 read with regulation 9, or any Class VII or VIII ship from the requirements of regulation 14 read with regulation 16 or any Class VIIA ship from the requirements of regulation 15, in respect of portable radio equipment, if the ship is engaged on voyages of such duration that in the Authority's opinion such equipment is unnecessary.

Concession regarding the size of rescue boats

54. If it is impracticable or unreasonable for a ship to carry a rescue boat of the minimum length prescribed by this Part, the Authority may allow a smaller rescue boat to be carried by that ship.

Exemption in respect of vessel constructed before the coming into force of this Part

55. The Authority may, on such conditions as the Authority thinks fit, exempt any vessel constructed before the coming into operation of this Part, from any of the requirements of this Part, if the Authority is satisfied that compliance with that requirement is either impracticable or unreasonable in the case of that vessel.

General exemption in respect of certain vessels

56. (1) The Authority may exempt, in accordance with Chapter I regulation 4 of the Safety Convention 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 this Part provided that the ship complies with safety requirements which in the opinion of the Authority are adequate for the voyage which is to be undertaken by the ship.

(2) The Authority may exempt, in accordance with Chapter III regulation 2.1 of the Safety Convention any ship, considering the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this Part unreasonable or unnecessary, exempt from those requirements an individual ship or classes of ships which in the course of their voyage do not proceed more than 20 nautical miles from the nearest land.

(3) The Authority may, on such conditions as the Authority thinks fit, exempt any vessel which does not engage on an international voyage, from any of the requirements of this Part.

PART II FIRE APPLIANCES

CHAPTER I—CLASS I SHIPS

Class I Ships

57. A Class I ship shall be fitted with fire protection, detection and fire extinction appliances in accordance with the requirements of Chapter II-2 of the Safety Convention as applicable and the applicable Codes.

CHAPTER II — CLASS II OR IIA SHIPS

Requirements

58. (1) Regulation 57 shall apply also to a Class II or IIA ship.

(2) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

CHAPTER III — CLASS III OR IV SHIPS

Class III Ships

59. Not yet allocated.

Class IV Ships

60. Not yet allocated

CHAPTER IV — CLASS V OR VI SHIPS

Class V and VI Ships

61. The fire protection, detection and fire extinction appliances on a Class V or VI ship shall be in accordance with the requirements of the FSS Code.

Water pipes, hydrants and fire hoses

62. (1) A Class V or VI ship shall be provided with water pipes and hydrants.

(2) The diameter of the water service pipes shall be sufficient to enable an adequate supply of water to be provided for the operation of at least one fire hose and the projection thereby of a powerful jet of water.

(3) The number and position of the fire hydrants referred to in subregulation (1) shall be such that at least one such jet may be directed into any part of the ship by means of a fire hose not exceeding 20 meters in length.

(4) At least one fire hose shall be provided for each hydrant.

Portable fire extinguishers for passenger and crew spaces

63. (1) A Class V or VI ship shall be provided with at least five portable fire extinguishers for all of the passenger and crew spaces.

(2) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

Machinery spaces: ships fitted with main or auxiliary oil-fired boilers

64. (1) Every fully-decked Class V or VI ship fitted with main or auxiliary oil-fired boilers, shall be provided in the machinery space with at least—

- (a) one fire hydrant and fire hose with a nozzle suitable for spraying water; and
- (b) two portable fire extinguishers suitable for extinguishing oil fires.

(2) In addition to the requirements of subregulation (1), there shall be provided in the machinery space a fixed fire-extinguishing system, a fixed foam fire extinguishing system and a fixed pressure water spraying and a water mist fire extinguishing system complying with the requirements of regulation 106.

Machinery spaces containing internal combustion machinery

65. (1) A Class V or VI ship fitted with internal combustion type propelling machinery, shall be provided in the machinery space with at least—

- (a) one fire hydrant and fire hose with a nozzle suitable for spraying water; and
- (b) one portable foam fire extinguisher for each 375 kW of the machinery or part thereof, but in no event less than two such extinguishers: Provided that not more than six such extinguishers shall be required in any ship.

(2) In addition to the requirements of subregulation (1), there shall be provided in the machinery space a fixed gas fire-extinguishing system, a fixed foam fire extinguishing system and a fixed pressure water spraying and a water mist fire extinguishing system complying with the requirements of regulation 106.

Fire pumps

66. (1) A Class V or VI ship shall be provided with at least one fire pump operated by the ship's main power supply.

(2) A Class V or VI ship shall be provided with an additional independently powered fire pump which shall be permanently connected to the water pipes referred to in regulation 62.

(3) The pump referred to in subregulation (2), and its source of power shall be situated in a different compartment remote from that containing the pump referred to in subregulation (1).

CHAPTER V—CLASS VII SHIPS

Class VII Ships of 500 gross tons or over: Fire pumps, fire main, water service pipes, hydrants, hoses and nozzles

67. A Class VII ship of 500 gross tons or over shall be fitted with fire pumps, fire main, water service pipes, hydrants, hoses and nozzles in accordance with the requirements of Chapter II-2 of the Safety Convention as applicable and the applicable Codes.

Class VII Ships of 500 gross tons or over: Fire extinguishers for accommodation spaces, service spaces and control stations

68. (1) A Class VII ship of 500 gross tons or over shall be provided with fire extinguishers for accommodation spaces, service spaces and control stations in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and the applicable Codes.

(2) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

Class VII Ships of 2,000 gross tons or over: Fixed fire-extinguishing arrangements in cargo spaces

69. A Class VII ship of 2,000 gross tons or over shall be protected by a fixed carbon dioxide or inert gas fire-extinguishing system complying with the provisions of Chapter II-2 regulation 10 of the Safety Convention and the FSS Code, or by a fire-extinguishing system which gives equivalent protection, except for ro-ro and vehicle spaces, cargo spaces.

Class VII Ships of 500 gross tons or over: Machinery spaces containing oil-fired boilers or oil burning equipment

70. A Class VII ship of 500 gross tons or over shall be provided with fixed fire-extinguishing arrangements in machinery spaces containing oil-fired boilers or oil burning equipment in compliance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and the applicable Codes.

Class VII Ships of 500 gross tons or over: Machinery spaces containing internal combustion machinery

71. A Class VII ship of 500 gross tons or over shall be provided with fixed fire-extinguishing arrangements in machinery spaces containing internal combustion machinery in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and the applicable Codes.

Class VII Ships of 500 gross tons or over: Machinery spaces containing steam turbines or enclosed steam engines

72. A Class VII ship of 500 gross tons or over, shall be provided with fixed fire-extinguishing arrangements in machinery spaces containing steam turbines or enclosed steam engines in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and the applicable Codes.

Class VII Ships of 500 gross tons or over: Firefighters' outfits

73. A Class VII ship of 500 gross tons or over, shall carry firefighters' outfits in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and Chapter III section 2 of the FSS Code.

Class VII Ships of 500 gross tons or over: International shore connection

74. A Class VII ship of 500 gross tons or over, shall be provided with at least one international shore connection in accordance with the requirements of Chapter II-2 regulation 2 of the Safety Convention.

Application of regulations to Class VII ships

75. The provisions of regulations 92 to 98 of these Regulations shall apply to Class VII ships less than 150 gross tons.

Class VII Ships of 150 gross tons or more but less than 500 gross tons: Fire pumps, fire main, water service pipes, hydrants, hoses and nozzles

76. (1) A Class VII ship of 150 gross tons or more but less than 500 gross tons, shall be provided with appliances in accordance with this regulation whereby at least one jet of water, as required by this Part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space, accommodation spaces, service spaces and control stations when empty.

(2) A Class VII ship of 150 gross tons or more but less than 500 gross tons shall be provided with at least one fire pump operated by power which shall be capable of delivering at least one jet of water from any fire hydrant, hose and nozzle provided in the ship, and which shall comply with the requirements of regulation 103.

(3) In a Class VII ship of 150 gross tons or more but less than 500 gross tons fitted with oil-fired boilers or internal combustion type propelling machinery, there shall be provided in a position outside the spaces containing such boilers or machinery, an additional fire pump and its source of power and sea connection, one such pump is operated by power, the pump shall comply with the requirements of subregulation (2), and if the pump is manually operated, the pump shall be provided with a hose and a minimum 10mm diameter nozzle through which the pump shall be capable of producing a jet of water having a throw of not less than six meters which can be directed on to any part of the ship.

(4) In a Class VII ship of 150 gross tons or more but less than 500 gross tons, there shall be provided a fire main, water service pipes and hydrants and at least three fire hoses in accordance with regulation 101 read with regulation 103.

(5) In a Class VII ship of 150 gross tons or more but less than 500 gross tons fitted with oil-fired boilers or internal combustion type propelling machinery, there shall be provided a spray nozzle suitable for use with the fire hoses required by subregulation (4).

Class VII Ships of 150 gross tons or more but less than 500 gross tons: Portable fire extinguishers for accommodation and service spaces

77. (1) A Class VII ship of 150 gross tons or more but less than 500 gross tons, shall be provided with at least three portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces.

(2) Accommodation spaces, service spaces and control stations shall be provided with portable fire extinguishers of appropriate types and sufficient number to the satisfaction of the Authority.

(3) The fire extinguishers in this regulation shall comply with regulation 105.

(4) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

Class VII Ships of 150 gross tons or more but less than 500 gross tons: Machinery spaces containing oil-fired boilers or oil burning equipment

78. (1) In a Class VII ship of 150 gross tons or more but less than 500 gross tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least one of the following fixed fire extinguishing systems:

- (a) a fixed pressure water spraying and a water mist fire extinguishing system complying with the requirements of regulation 106;
- (b) a fixed gas fire-extinguishing system complying with the requirements of regulation 106; or
- (c) a fixed foam fire-extinguishing system complying with the requirements of regulation 106: Provided that if the engine and boiler room are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space.

(2) In addition to the requirements of subregulation (1), there shall be provided—

- (a) in each boiler room and in each space which contains any part of any oil fuel installation, at least two portable fire extinguishers suitable for extinguishing oil fires; and
- (b) in each firing space, a receptacle containing at least 0.1 m³ of sand, saw dust impregnated with soda or other approved dry material suitable for quenching oil fires together with a scoop for its distribution, or alternatively an additional approved portable fire extinguisher suitable for extinguishing oil fires.

Class VII Ships of 150 gross tons or more but less than 500 gross tons: Machinery spaces containing internal combustion machinery

79. In a Class VII ship of 150 gross tons or more but less than 500 gross tons there shall be provided in any space containing internal combustion machinery, approved foam-type fire extinguishers, each of at least 45 litre capacity or equivalent, sufficient in number to enable foam or its equivalent to be directed on to any part of the fuel and lubricating oil pressure systems, gearing and other fire hazards, in addition, there shall be provided a sufficient number of portable foam extinguishers or equivalent which shall be so located that an extinguisher is readily available and that there are at least two such extinguishers in each of such spaces, and for smaller spaces of cargo ships the Authority may consider relaxing this requirement.

Class VII Ships of 150 gross tons or more but less than 500 gross tons: Firefighters' outfits

80. A Class VII ship of 150 gross tons or more but less than 500 gross tons, shall be provided with at least two firefighter's outfit which shall comply with the requirements of regulation 108.

CHAPTER VI—CLASS VIIA SHIPS

Requirements

81. (1) Regulations 67 to 74 inclusive, shall apply also to a Class VIIA ship of 500 gross tons or over.

(2) The provisions of regulations 76 to 80 of these Regulations shall apply to Class VIIA ships of 150 gross tons or more but less than 500 gross tons.

(3) The provisions of regulations 88 to 94 of these Regulations shall apply to Class VIIA ships less than 150 gross tons.

CHAPTER VII—CLASS VIII SHIPS

Class VIII Ships of 1,000 gross tons or over

82. (1) Regulations 67 and 68 and regulations 70 to 74 inclusive, shall apply to a Class VIII ship of 1,000 gross tons or over.

(2) Except for ro-ro and vehicle spaces, cargo spaces on cargo ships of 2,000 gross tonnage and upwards shall be protected by a fixed carbon dioxide or inert gas fire-extinguishing system complying with the provisions of Chapter II-2 regulation 10 of the Safety Convention and the FSS Code, or by a fire-extinguishing system which gives equivalent protection

Class VIII Ships of 500 gross tons or over but of less than 1,000 gross tons: Fire pumps, fire main, water service pipes, hydrants, hoses and nozzles

83. A Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, shall be provided with appliances in accordance with the requirements of Chapter II-2 and the applicable provisions of regulation 10 of the Safety Convention as applicable and the applicable Codes.

Class VIII Ships of 500 gross tons or over but of less than 1,000 gross tons: Portable fire extinguishers for accommodation and service spaces

84. (1) A Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, shall be provided with portable fire extinguishers in accordance with the requirements of Chapter II-2 and the applicable provisions of regulation 10 of the Safety Convention as applicable and the applicable Codes.

(2) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

Class VIII Ships of 500 gross tons or over but of less than 1,000 gross tons: Machinery spaces containing oil-fired boilers or oil burning equipment

85. (1) In a Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least one of the following fixed fire extinguishing systems:

- (a) a fixed pressure water spraying and a water mist fire extinguishing system complying with the requirements of regulation 106;
 - (b) a fixed fire-extinguishing system complying with the requirements of regulation 106; or
 - (c) a fixed foam fire-extinguishing system complying with the requirements of regulation 106: Provided that if the engine and boiler room are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space, and if a fixed gas fire-extinguishing system is fitted in compliance with paragraph (b), there shall be provided for the protection of the boiler room and spaces containing the oil fuel installation, one foam fire extinguisher of at least 135 litres capacity or a carbon dioxide fire extinguisher of at least 45 kg. capacity.
- (2) In addition to the requirements of subregulation (1) there shall be provided—
- (a) in each boiler room, one foam fire extinguisher of at least 45 litres capacity or a carbon dioxide fire extinguisher of at least 16 kg. capacity and for each burner therein one portable fire extinguisher suitable for extinguishing oil fires; and
 - (b) in each space which contains any part of any oil fuel installation, at least two portable fire extinguishers suitable for extinguishing oil fires in addition to any such extinguishers which may be carried in accordance with paragraph (a).

Class VIII Ships of 500 gross tons or over but of less than 1,000 gross tons: Machinery spaces containing internal combustion type machinery

86. (1) A Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, shall be provided in any space containing internal combustion machinery used for main propulsion, or having in the aggregate a total power of not less than 186 kW for auxiliary purposes, fire extinguishing systems in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention and the applicable Codes.

(2) In every Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, there shall be provided in any space containing internal combustion type machinery, one portable fire extinguisher suitable for extinguishing oil fires for each 75 kW or part thereof of such machinery: Provided that not more than six such extinguishers shall be required in any such space.

Class VIII Ships of 500 gross tons or over but of less than 1,000 gross tons: Firefighters' outfits

87. A Class VIII ship of 500 gross tons or over but of less than 1,000 gross tons, shall be provided with at least two firefighter's outfits which shall comply with the requirements of regulation 108.

Class VIII Ships of 150 gross tons or over but of less than 500 gross tons: Fire pumps, fire main, water service pipes, hydrants, hoses and nozzles

88. (1) A Class VIII ship of 150 gross tons or over but of less than 500 gross tons, shall be provided with appliances in accordance with this regulation whereby at least one jet of water, as required by this Part, can reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space, accommodation spaces, service spaces and control stations when empty.

(2) A Class VIII ship of 150 gross tons or over but of less than 500 gross tons, shall be provided with at least one fire pump operated by power which shall be capable of delivering at least one jet of water from any fire hydrant, hose and nozzle provided in the ship and which shall comply with the requirements of regulation 104.

(3) In a Class VIII ship of 150 gross tons or over but of less than 500 gross tons, there shall be provided a fire main, water service pipes and hydrants which shall comply with the requirements of regulation 105, and at least two fire hoses.

(4) In a Class VIII ship of 150 gross tons or over but of less than 500 gross tons fitted with oil-fired boilers or internal combustion propelling machinery, there shall be provided a spray nozzle suitable for use with the fire hoses required by subregulation (3).

Class VIII Ships of 150 gross tons or over but of less than 500 gross tons: Portable fire extinguishers for accommodation and service spaces

89. (1) A Class VIII ship of 150 gross tons or over but of less than 500 gross tons, shall be provided with at least two portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces and control stations.

(2) The fire extinguishers in this regulation shall comply with regulation 105.

(3) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

Class VIII Ships of 150 gross tons or over but of less than 500 gross tons: Machinery spaces containing oil-fired boilers or oil burning equipment

90. (1) In a Class VIII ship of 150 gross tons or over but of less than 500 gross tons, there shall be provided for the protection of any space containing any oil-fired boiler, oil fuel settling tank or oil fuel unit, at least one of the following fixed fire extinguishing systems:

- (a) a fixed pressure water spraying and a water mist fire extinguishing system complying with the requirements of regulation 106;
- (b) a fixed gas fire-extinguishing system complying with the requirements of regulation 106; or
- (c) a fixed foam fire-extinguishing system complying with the requirements of regulation 106: Provided that if the engine and boiler room are not entirely separated from each other by a bulkhead, or if fuel oil can drain from the boiler

room into the engine room, the combined engine room and boiler room shall, for the purpose of this subregulation, be regarded as a single space, and if a fixed gas fire-extinguishing system is fitted in compliance with paragraph (b), there shall be provided for the protection of the boiler room and spaces containing the oil fuel installation, one foam fire extinguisher of at least 135 litres capacity or a carbon dioxide fire extinguisher of at least 45 kg. capacity.

- (2) In addition to the requirements of subregulation (1), there shall be provided—
- (a) in each boiler room and in each space which contains any part of any oil fuel installation, at least two portable fire extinguishers suitable for extinguishing oil fires; and
 - (b) in each firing space, a receptacle containing at least 0.1 m³ of sand, saw dust impregnated with soda or other approved dry material suitable for quenching oil fires together with a scoop for its distribution, or alternatively an additional approved portable fire extinguisher suitable for extinguishing oil fires.

Class VIII Ships of 150 gross tons or over but of less than 500 gross tons: Machinery spaces containing internal combustion type machinery

91. In a Class VIII ship of 150 gross tons or over but of less than 500 gross tons, there shall be provided in any space containing internal combustion type machinery, one portable fire extinguisher suitable for extinguishing oil fires for each 75kW or part thereof of such machinery, except that not more than six such fire extinguishers shall be required in any one space and that, alternatively, there may be provided two such extinguishers together with either—

- (a) one foam fire extinguisher of at least 45 litres capacity; or
- (b) one carbon dioxide fire extinguisher of at least 15 kg. capacity.

Class VIII Ships of 150 tons or over but of less than 500 tons: Firefighters' outfit

92. A Class VIII ship of 150 gross tons or over but of less than 500 gross tons, shall be provided with at least two firefighter's outfits which shall comply with the requirements of regulation 108.

Class VIII Ships of less than 150 gross tons: Fire pumps, fire main, water service pipes, hydrants, hoses and nozzles

93. Regulation 88 shall apply also to a Class VIII ship of less than 150 gross tons, except that the fire pump required by regulation 88(2) may be driven by the main engine.

Class VIII Ships of less than 150 gross tons: Portable fire extinguishers

94. (1) A Class VIII ship of less than 150 gross tons, shall be provided with portable fire extinguishers suitable for extinguishing oil fires, so situated as to be readily available for use, in accordance with the following table:

<i>Length of ship in meters</i>	<i>Minimum number of extinguishers</i>
Under 24	2
24 or over	3

(2) In addition to subregulation (1), a Class VIII ship of less than 150 gross tons, shall be provided with at least two portable fire extinguishers so situated as to be readily available for use in the accommodation and service spaces and control stations.

(3) The fire extinguishers in this regulation shall comply with regulation 105.

(4) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

CHAPTER VIII — CLASS IX OR IXA SHIPS

Requirements

95. Regulations 82 to 94 inclusive, shall apply also to a Class IX or IXA ship: Provided the ship is exempt from compliance with regulation 105(10).

CHAPTER X—CLASS XI SHIPS

Requirements

96. (1) A Class XI ship shall be provided with—

- (a) at least one pump with the minimum capacity of 15m³/hr and at least one fire hose whereby a jet of water can be readily directed into any part of the ship; and
- (b) a minimum of three portable fire extinguishers to ensure that at least one is available for immediate use in each compartment of the crew spaces and of the passenger spaces, if any.

(2) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

CHAPTER XI—CLASS XII SHIPS

Requirements

97. (1) A Class XII ship of 24 meters or over in length shall be provided with at least one pump with the minimum capacity of 15m³/hr and at least one fire hose whereby a jet of water can be directed into any part of the ship.

(2) A Class XII ship of 24 meters or over in length and fitted with internal combustion propelling machinery shall be provided with at least one nozzle suitable for spraying water by means of the fire hose referred to in subregulation (1).

(3) In a Class XII ship of 100 gross tons but less than 1000 gross tons, there shall be provided in any space containing internal combustion machinery, approved foam-type fire extinguishers, each of at least 45 litre capacity or equivalent, sufficient in number to enable foam or its equivalent to be directed on to any part of the fuel and lubricating oil pressure systems,

gearing and other fire hazards, in addition, there shall be provided a sufficient number of portable foam extinguishers or equivalent which shall be so located that an extinguisher is readily available and that there are at least two such extinguishers in each such space, and for smaller spaces of cargo ships the Authority may consider relaxing this requirement.

(4) A Class XII ship in which sails are the only means of propulsion shall carry not less than two portable fire extinguishers.

(5) In addition, at least one portable fire extinguisher and a fire blanket shall be provided in every galley: Provided that, where the superficial deck area of any galley exceeds 45m², at least two such extinguishers and two such blankets shall be provided.

CHAPTER XII—GENERAL REQUIREMENTS REGARDING FIRE APPLIANCES

Operational readiness, maintenance, service and inspection for fire appliances

98. (1) For operational readiness, maintenance and inspection, all ships shall comply with the operational readiness maintenance and inspection requirements of Chapter II-2 regulation 14 of the Safety Convention and the FSS Code.

(2) All fire-fighting appliances shall be serviced at intervals not exceeding 12 months by a service station, approved for that purpose by the Authority, or by a person of the ship's staff who is qualified to do so, in accordance with the SAMFAS Code.

Additional requirements for ships carrying explosives

99. (1) Where any ship, other than a ship carrying more than 12 passengers, carries explosives of such a nature or in such quantity as are not permitted to be carried in a passenger ship, by the relative provisions of Chapter II-2 regulation 19 of the Safety Convention, read with the Merchant Shipping (Dangerous Goods) Regulations, 1997, steam shall not be used for fire smothering purposes in any compartment containing explosives, and in any such compartment containing explosive and in an adjacent cargo compartment there shall be provided with a fire detection system complying with the requirements of regulation 107 or a smoke detection system.

(2) For the purpose of this regulation, "compartment" means all spaces contained between two adjacent permanent bulkheads, and includes the lower hold and all cargo spaces above the lower hold: Provided the whole of any shelter deck space not subdivided by steel bulkheads the openings in which can be closed by steel closing plates, shall for the purpose of this regulation be considered as a single space and where steel bulkheads with openings closed by steel closing plates are fitted, the enclosed spaces in the shelter deck shall be considered as part of the compartment or compartments below.

Fire Pumps

100. (1) The required fire pumps shall be capable of delivering for fire-fighting purposes a quantity of water, at the pressure specified as follows:

- (a) pumps in passenger ships, the quantity of water is not less than two thirds of the quantity required to be dealt with by the bilge pumps when employed for bilge pumping; and
 - (b) pumps in cargo ships, other than any emergency pump, the quantity of water is not less than four thirds of the quantity required under regulation II-1/35-1 of the Safety Convention, to be dealt with by each of the independent bilge pumps in a passenger ship of the same dimension when employed in bilge pumping, provided that in no cargo ship, other than those included in paragraph 7.3.2, Chapter II-2 regulation 10 of the Safety Convention need the total required capacity of the fire pumps, exceed 180 m³/h: provided for vessels of less than 500 gross tons the Authority may accept alternative arrangements, to the satisfaction of the Authority.
- (2) (a) Each of the required fire pumps, other than any emergency pump required in paragraph 2.2.3.1.2 Chapter II-2 regulation 10 of the Safety Convention, for cargo ships, shall have a capacity not less than 80% of the total required capacity divided by the minimum number of required fire pumps but in any case not less than 25 m³/h and each such pump shall in any event be capable of delivering at least the two required jets of water.
- (b) The fire pumps in paragraph (a) shall be capable of supplying the fire main system under the required conditions.
- (c) Where more pumps than the minimum of required pumps are installed such additional pumps shall have a capacity of at least 25 m³/h and shall be capable of delivering at least the two jets of water required in paragraph 2.1.5.1 Chapter II-2 regulation 10 of the Safety Convention.

(3) A fire pump required by this Part to be operated by power shall, except as expressly provided otherwise in this Part, be operated by a means other than the ship's main engines.

- (4) (a) Relief valves shall be provided in conjunction with all fire pumps if the pumps are capable of developing a pressure exceeding the design pressure of the fire main, water service pipes, hydrants and hoses.
- (b) The valves referred to in paragraph (a) shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.
- (5) (a) Isolating valves to separate the section of the fire main within the machinery space containing the main fire pump or pumps from the rest of the fire main shall be fitted in an easily accessible and tenable position outside the machinery spaces.
- (b) The fire main shall be so arranged that when the isolating valves are shut all the hydrants on the ship, except those in the machinery space referred to above, can be supplied with water by another fire pump or an emergency fire pump: provided for vessels of less than 500 gross tons, the Authority may accept alternative arrangements to the satisfaction of the Authority.
- (c) The emergency fire pump, its seawater inlet, and suction and delivery pipes and isolating valves shall be located outside the machinery space.

- (d) If this arrangement cannot be made, the sea-chest may be fitted in the machinery space if the valve is remotely controlled from a position in the same compartment as the emergency fire pump and the suction pipe is as short as practicable.
- (e) Short lengths of suction or discharge piping may penetrate the machinery space, provided they are enclosed in a substantial steel casing, or are insulated to A-60 class standards.
- (f) The pipes shall have substantial wall thickness, but in no case less than 11 mm, and shall be welded except for the flanged connection to the sea inlet valve.

(6) A valve shall be fitted to serve each fire hydrant so that any fire hose may be removed while the fire pumps are in operation.

(7) In tankers, isolation valves shall be fitted in the fire main at poop front in a protected position and on the tank deck at intervals of not more than 40m to preserve the integrity of the fire main system in case of fire or explosion.

(8) A centrifugal pump which is connected to the fire main, shall be fitted with a non-return valve.

- (9) (a) The emergency fire pump shall be situated in a position aft of the ship's collision bulkhead.
- (b) The space containing the emergency fire pump shall comply with regulation 10 paragraph 2.2.3.2 Chapter II-2 of the Safety Convention.

Fire main, water service pipes and hydrants

101. (1) In a ship which is required by this Part to be provided with fire pumps operated by power, the diameter of the fire main and of the water service pipes connecting the hydrants thereto, shall be sufficient for the effective distribution of the maximum discharge required by this Part from—

- (a) where only one pump is required by this Part, that pump;
- (b) where two pumps are so required, both pumps operating simultaneously; or
- (c) where more than two pumps are so required, the two largest of such pumps operating simultaneously: Provided that in any ship, other than a passenger ship, the diameter of the fire main and of the water service pipes shall be required to be sufficient only for the discharge of 180m³ per hour.

(2) With the two pumps simultaneously delivering water through the nozzles specified in paragraph 2.3.3 Chapter II-2 regulation 10 of the Safety Convention, with the quantity of water as specified in paragraph 2.1.3 Chapter II-2 regulation 10 of the Safety Convention, through any adjacent hydrants, the following minimum pressures shall be maintained at all hydrants:

- (a) for passenger ships:
 - (i) 4,000 gross tons and upwards- 0.40 N/mm²;
 - (ii) less than 4,000 gross tons - 0.30 N/mm²;
- (b) for cargo ships:
 - (i) 6,000 gross tons and upwards - 0.27 N/mm²;

- (ii) less than 6,000 gross tons - 0.25 N/mm²,

Provided the maximum pressure at any hydrant shall not exceed that at which the effective control of a fire hose can be demonstrated.

- (3) (a) In addition to the requirements in subregulation (2), passenger ships shall comply with the following:
 - (b) In the accommodation, service and machinery spaces the number and position of hydrants shall be such that the requirements of subregulation (2) may be complied with when all watertight doors and all doors in main vertical zone bulkheads are closed; and
 - (c) (i) Where access is provided to a machinery space of category A at a low level from an adjacent shaft tunnel, two hydrants shall be provided external to, but near the entrance to that machinery space;
 - (ii) Where such access is provided from other spaces, in one of those spaces two hydrants shall be provided near the entrance to the machinery space of category A; and
 - (iii) Such provision need not be made where the tunnel or adjacent spaces are not part of the escape route.
- (4) (a) Where any ship is required by this Part to provide two jets of water under the conditions required by this Part, hydrants sufficient in number, shall be so positioned as to enable at least two jets of water not emanating from the same hydrant, one of which shall be from a single length of hose, to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and to any store room and any part of any cargo space when empty, any ro-ro space or any vehicle space in which latter case the two jets shall reach any part of the space, each from a single length of hose.
- (b) Where any ship is required by this Part to provide one jet of water under the conditions required by this Part, hydrants sufficient in number, shall be so positioned as to enable one jet of water from a single length of hose to reach any part of the ship normally accessible to the passengers or crew while the ship is being navigated, and any store room and any part of any cargo space when empty.
- (c) The hydrants in paragraphs (a) and (b) shall be positioned near the accesses to the protected spaces.
- (5) (a) The fire main shall have no connections other than those necessary for firefighting and washing down.
- (b) (i) Materials readily rendered ineffective by heat, shall not be used for fire mains and the fittings thereto, unless adequately protected.
- (ii) The pipes and fire hydrants shall be so placed that the fire hoses may be easily coupled to them.
- (iii) In a ship which may carry deck cargo, the fire hydrants shall be so placed that they are always readily accessible, and the pipes shall be arranged as far as practicable to avoid risk of damage by such cargo.

- (iv) Unless there is provided one fire hose and nozzle for each fire hydrant in the ship, there shall be complete interchangeability of fire hose couplings and nozzles.
- (c) Valves of the screw lift type or cocks shall be fitted in such positions on the pipes that any of the fire hoses may be removed while the fire pumps are at work.
- (d) The arrangement of pipes and hydrants shall be such as to avoid the possibility of freezing.
- (e) Suitable drainage provisions shall be provided for fire main piping.
- (f) Isolation valves shall be installed for all open deck fire main branches used for purposes other than fire-fighting.
- (g) In ships where deck cargo may be carried, the positions of the hydrants shall be such that they are always readily accessible and the pipes shall be arranged as far as practicable to avoid risk of damage by such cargo.
- (h) In a Class I or II ship, water from the fire main shall, so far as practicable, be immediately available, such as by maintenance of pressure or by remote control of fire pumps, which control shall be easily operable and readily accessible.
- (i) The diameter of the fire main and water service pipes shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously, except that in the case of cargo ships, other than those included in paragraph 7.3.2 regulation 10 Chapter II-2 of the Safety Convention, the diameter need only be sufficient for the discharge of 140 m³/h.

Availability of water supply

102. The arrangements for the ready availability of water supply in a ship shall be in accordance with paragraph 2.1.2 regulation 10 Chapter II-2 of the Safety Convention.

Fire hoses, nozzles

103. (1) Fire hoses provided in compliance with this Part, shall be in accordance with the provisions of Chapter II-2 regulation 10 of the Safety Convention: Provided, for vessels of 150 gross tons or less, the Authority may consider an alternative arrangement to the satisfaction of the Authority.

(2) Fire hoses shall have a length of at least 10m, but not more than—

- (a) 15 m in machinery spaces;
- (b) 20 m in other spaces and open decks; or
- (c) 25 m for open decks on ships with a maximum breadth in excess of 30 m.

(3) Unless one hose and nozzle is provided for each hydrant in the ship, there shall be complete interchangeability of hose couplings and nozzles.

(4) Except in Class V or VI ship or in a Class XII ship, fire hoses provided in compliance with this Part, shall not be used for any purpose other than extinguishing fire or testing with fire appliances.

- (5) (a) A ship which is required by this Part to be provided with fire pumps operated by power, shall be provided with nozzles 10mm, or 19mm in diameter or as near thereto in diameter as possible. Provided nozzles larger in diameter may be provided if the requirements of this Part relating to the provision of water for fire fighting purposes are otherwise complied with and that they comply with the provisions of Chapter II-2 regulation 10 of the Safety Convention: Provided, for vessels of 150 gross tons or less, the Authority may accept alternative arrangements to the satisfaction of the Authority.
- (b) For the purposes of this Part, standard nozzle sizes shall be 12 mm, 16 mm and 19 mm or as near thereto as possible: provided the Authority may permit larger diameter nozzles.
- (c) For accommodation and service spaces, a nozzle size greater than 12 mm need not be used.
- (d) For machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from two jets at the pressure mentioned in regulation 100 from the smallest pump, provided that a nozzle size greater than 19 mm need not be used.
- (e) Nozzles shall be of an approved dual-purpose type, either spray or jet type incorporating a shutoff.

International shore connection

104. (1) Any international shore connection provided in compliance with this Part, shall be constructed in accordance with the requirements of the provisions of Chapter II-2 regulation 10 of the Safety Convention and the following standards:

<i>Description</i>	<i>Dimension</i>
Outside diameter	178 mm
Inside diameter	64 mm
Bolt circle diameter	132 mm
Slots in flange	4 holes 19 mm in diameter spaced equidistantly on a bolt circle of the above diameter, slotted to the flange periphery
Flange thickness	14.5 mm minimum
Bolts and nuts	4, each of 16 mm, 50 mm in length

- (2) (a) International shore connections shall be of steel or other equivalent material and shall be designed for 1.0 N/mm² services.

- (b) The flange shall have a flat face on one side and, on the other side, it shall be permanently attached to a coupling that will fit the ship's hydrant and hose.
- (c) The connection shall be kept aboard the ship together with a gasket of any material suitable for 1.0 N/mm² services, together with four bolts of 16 mm diameter and 50 mm in length, four 16 mm nuts, and eight washers.

Fire extinguishers

105.(1) A fire extinguisher type and design, provided in compliance with this Part, shall be constructed in accordance with the relevant provisions of Chapter II-2 regulation 10 of the Safety Convention and the provisions of the FSS Code.

(2) Subject to the provisions of subregulation (3), the mass and capacity of a portable fire extinguisher provided in compliance with this Part, shall be in accordance with the provisions of Chapter IV section 3 of the FSS Code.

(3) The Authority may in a Class IX, IXA, X, XI or XII ship permit for a portable fire extinguisher required to be provided in compliance with this Part, the provision of a combination of portable fire extinguishers approved by the Authority having an aggregate capacity of not less than the fire extinguishing equivalent of a 9-litre fluid fire extinguisher.

(4) A portable fire extinguisher provided in compliance with this Part shall, so far as practicable, have a uniform method of operation.

(5) Where portable dry powder fire extinguishers are provided in compliance with this Part in either accommodation and service spaces or in machinery spaces, their number shall not exceed one half of the total number of extinguishers provided in either of those spaces as required by Chapter II-2 of the Safety Convention.

(6) A fire extinguisher provided for use in any ship, shall not contain any extinguishing medium which either itself or when in use, gives off gases harmful to persons.

(7) For the purpose of this Part, the capacity of any fire extinguisher other than a carbon dioxide fire extinguisher, shall be taken to be the greatest volume or weight of extinguishing medium which it can contain when sufficient space is left to ensure the proper operation of the extinguisher.

(8) For the purposes of this part, the capacity of a carbon dioxide fire extinguisher shall be taken to be the greatest weight of carbon dioxide which it can safely contain in a tropical climate.

(9) A fire extinguisher provided in compliance with this Part shall at all times be kept fully charged.

- (10) (a) Spare charges shall be provided for 100% of the first 10 extinguishers and 50 percent of the remaining fire extinguishers capable of being recharged on board.
- (b) Not more than 60 total spare charges are required.
- (c) Instructions for recharging shall be carried on board.

- (d) For fire extinguishers which cannot be recharged onboard, additional portable fire extinguishers of the same quantity, type, capacity and number as determined in paragraph (a) shall be provided in lieu of spare charges.

Fixed fire-extinguishing systems

106. (1) This regulation applies to fixed fire-extinguishing systems fitted in compliance with this Part.

(2) A fixed gas fire-extinguishing system required to be installed on a ship, shall be provided in accordance with Chapter 5 of the FSS Code.

(3) A fixed foam fire extinguishing system required to be installed on a ship, shall be as prescribed in Chapter 6 of the FSS Code.

(4) A fixed pressure water spraying and water mist fire extinguishing system required to be installed on a ship, shall be as prescribed in Chapter 7 of the FSS Code.

(5) An automatic sprinkler, fire detection and fire alarm system required to be installed on a ship, shall be as prescribed in Chapter 8 of the FSS Code.

(6) Operating instructions, in the English language, in clear and permanent lettering, shall be affixed to a fixed fire extinguishing system or in a position adjacent thereto.

(7) Where a fixed fire-extinguishing system not required by this Part is installed, the system shall meet the requirements of the relevant regulations of the Safety Convention and the FSS Code.

(8) Fire-extinguishing systems using Halon 1211, 1301, and 2402 and perfluorocarbons shall be prohibited.

(9) Fixed fire-extinguishing systems for the protection of cargo tanks and cargo pump rooms in tankers shall be in compliance with regulation 10 Chapter II-2 of the Safety Convention.

Fire detection systems

107.(1)(a) A fire detection system fitted in compliance with this Part, shall be capable of automatically indicating the presence or indication of fire and its location.

- (b) The indicators shall be centralised either on the navigating bridge or at other control stations which are provided with direct communication with the navigating bridge: Provided that the Authority may in any ship, permit the indicators to be distributed among several stations if it is satisfied that such arrangements are at least as effective as if the indicators were so centralised.

(2) In a passenger ship, electrical equipment used in the operation of any fire detection system fitted in compliance with this Part, shall be capable of being supplied from two sources

of electric power one of which shall be the emergency source of electric power required by regulation 42 of the Construction Regulations, 1968.

(3) The indicating system of any fire detection system fitted in compliance with this Part, shall operate both audible and visible alarms at the stations referred to in subregulation (1).

(4) A fixed fire detection and fire alarm system required to be installed on a ship, shall be as prescribed in Chapter 9 of the FSS Code.

(5) A sample extraction smoke detection system required to be installed on a ship, shall be as prescribed in Chapter 10 of the FSS Code.

Firefighters' outfits

108. (1) A fire-fighter's outfit carried in compliance with this Part, shall be in accordance with the requirements of Chapter 3 of the FSS Code.

(2) Where more than one of the outfits mentioned in subregulation (1) is provided, they shall be kept in accordance with the requirements of Chapter II-2 regulation 10 of the Safety Convention.

(3) Self-contained compressed air breathing apparatus of fire-fighter's outfits shall comply with paragraph 2.1.2.2 of Chapter 3 of the FSS Code.

Means for stopping machinery, shutting off oil fuel suction pipes and closing of openings

109. In a ship, there shall be provided means for stopping ventilating fans serving machinery, accommodation and cargo spaces in accordance with the requirements of Chapter II-2 regulation 5 of the Safety Convention.

Emergency fire growth potential stops

110. (1) In a ship—

- (a) there shall be provided means for stopping ventilating fans serving machinery, accommodation, service spaces and cargo spaces;
- (b) for machinery and cargo spaces, there shall be provided means for closing all skylights, doorways, ventilators, annular spaces around funnels and other openings to such spaces;
- (c) there shall be means of limiting fire-growth potential in every space of the ship, in accordance with Chapter II-2 regulation 5 of the Safety Convention; and
- (d) the stopping means in paragraph (a), (b) (c) shall be capable of being operated from positions outside the said spaces which would not be made inaccessible by a fire within such spaces.

(2) An installation shall be provided with a stop valve or electrical isolation external to the compartment containing the cooking or heating appliances for eliminating the fuel source.

Fire control plans

111. (1) In a Class I, II or IIA ship, there shall be permanently exhibited for the guidance of the master and officers of the ship, general arrangement plans in accordance with the requirements of Chapter II-2 regulation 15 of the Safety Convention.

(2) In a ship, there shall be permanently exhibited for the guidance of the master and officers of the ship, general arrangement plans showing clearly the information referred to in subregulation (1) where it is applicable to the ship.

(3) The general arrangement plans required by this regulation, shall be kept up-to-date and any alterations shall without delay be recorded on such plans.

Availability of fire fighting appliances

112. (1) Fire appliances carried in a ship, shall be maintained in good order and shall be kept available for immediate use at all times.

(2) All moveable fire appliances, other than Fire-fighters' outfits, carried in compliance with this Part shall be stowed where moveable fire appliances will be readily accessible from the spaces in which they are intended to be used.

(3) At least one of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

Helicopter facilities

113. The construction of a helicopter facilities on a ship, shall be in accordance with the provisions of Chapter II-2 Part G regulation 18 of the Safety Convention.

FTP Code compliance

114(1) For the purposes of these Regulations, if a material must meet requirements set out in Annex 1 to the FTP Code—

- (a) the material shall be approved by the Authority as meeting those requirements and in accordance with that Code;
- (b) the Authority's approval is not required when section 6 of the Code applies; and
- (c) the Code is to be read without reference to the words "In general".

(2) For the purposes of these Regulations —

- (a) "may" is to be read as "must" in section 3.4 of Part 3 of Annex 1 to the FTP Code;
- (b) section 3.5.2.1 of Part 3 of Annex 1 to the FTP Code is to be read as "Thermal radiation through windows must be tested and evaluated in accordance with appendix 3 to this part if escape routes pass near the windows"; and
- (c) the hose-stream test procedure set out in section 5 of appendix 2 to Part 3 of Annex 1 to the FTP Code is mandatory if escape routes pass near the windows.

FSS Code compliance

115. (1) For the purposes of these Regulations, if a system or equipment is required to meet requirements of the FSS Code, the system or equipment shall be approved by the Authority as meeting those requirements.

(2) Subregulation (1) does not apply in respect of the design of pressure containers.

CHAPTER XIII—EQUIVALENTS AND EXEMPTIONS

Equivalents and approval of types of fire appliances

116. (1) Where this Part requires that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Authority may allow any other fitting, material, appliance, apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that ship if the Authority is satisfied that such other fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by this Part in accordance with Chapter II-2 regulation 1 of the Safety Convention.

(2) The Authority may approve of any type of fire appliance for use on a ship belonging to the Republic which in the Authority's opinion complies with the requirements of this Part.

Exemption in respect of fire patrol, alarm and detection systems

117. The Authority may exempt any Class I, II or IIA ship from the requirements of regulation 57 read with regulation 58, if the Authority is satisfied that to require compliance therewith would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

Exemption in respect of fixed fire-extinguishing systems in cargo spaces in passenger ships

118. The Authority may exempt any Class I, II or IIA ship of 1,000 gross tons or over from the requirements of regulation 57 read with regulation 58, if it is satisfied that to require compliance therewith would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

Exemption in respect of fixed fire-extinguishing systems in cargo spaces in ships other than passenger ships

119. The Authority may exempt any Class VII or VIIA ship of 2,000 gross tons or over from the requirements of regulation 69 read with regulation 81 in respect of the provision of a fixed gas fire-extinguishing systems in the cargo holds of the ship, not being the tanks of a tanker, if the Authority is satisfied that—

- (a) the holds therein are provided with steel hatch covers and effective means of closing all ventilators and other openings leading to the holds;
- (b) the ship is constructed for, and employed solely in, the carriage of ore, coal or grain; or

- (c) to require compliance with the requirements of the said regulation would be unreasonable on account of the short duration of the voyages on which the ship is engaged.

General exemption in respect of certain ships

120. The Authority may, on such conditions as the Authority thinks fit, exempt any ship which does not engage on an international voyage, from any of the requirements of this Part.

Exemption in respect of a ship constructed before the coming into force of this Part

121. The Authority may, on such conditions as the Authority thinks fit, exempt any ship constructed before the coming into operation of this Part, from any of the requirements of this Part, if the Authority is satisfied that compliance with that requirement is either impracticable or unreasonable in the case of that ship.

Repeal of regulations

122. The Life-Saving Equipment Regulations, 1968 promulgated by Government Notice No. R. 141 of 2 February 1968, as amended by Government Notices Nos. R. 917 of 9 May 1975, R. 2205 of 21 November 1975, R. 516 of 21 March 1980, R. 2422 of 28 November 1980, R. 1022 of 30 May 1986, R. 423 of 17 March 1995, R. 925 of 7 June 1996, and R. 610 of 14 May 1999 and R. 565 of 17 June 2005 are hereby repealed.

Short title and commencement

123. These regulations are called the Life-Saving Appliances and Arrangements and Fire Appliances Regulations, 2024 and are published for public comments.