

国际海事组织

IMO 第 66 届海安会通过的 SOLAS
公约修正案及国际救生设备规则

SOLAS AMENDMENTS AND INTERNATIONAL LIFE - SAVING
APPLIANCE (LSA) CODE ADOPTED AT THE 66TH SESSION
OF IMO MARITIME SAFETY COMMITTEE

人民交通出版社

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中华人民共和国船舶检验局译

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(中英文合订本)

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RESOLUTION MSC.47(66)

(adopted on 4 June 1996)

**ADOPTION OF AMENDMENTS TO THE
INTERNATIONAL CONVENTION FOR
THE SAFETY OF LIFE AT SEA, 1974**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28 (b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974, hereinafter referred to as "the Convention", concerning the procedures for amending the Annex to the Convention, other than the provisions of chapter I thereof,

HAVING CONSIDERED, at its sixty-sixth session, amendments to the Convention proposed and circulated in accordance with article VIII (b) (i) thereof,

1. **ADOPTS**, in accordance with article VIII (b) (iv) of the Convention, amendments to the Convention the text of which is set out in the Annex to the present resolution;
2. **DETERMINES**, in accordance with article VIII (b) (vi) (2) (bb) of the Convention, that the amendments shall be deemed to have been accepted on 1 January 1998, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;
3. **INVITES** Contracting Governments to note that, in accordance with article VIII (b) (vii) (2) of the Convention, the amendments shall enter into force on 1 July 1998 upon their acceptance in accordance with paragraph 2 above;
4. **REQUESTS** the Secretary-General, in conformity with article VIII (b) (v) of the Convention, to transmit certified copies of the present resolution and the

text of the amendments contained in the Annex to all Contracting Governments to the Convention;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

CHAPTER II-1

CONSTRUCTION - SUBDIVISION AND STABILITY, MACHINERY AND ELECTRICAL INSTALLATIONS

- 1 The existing title of Chapter II-1 is replaced by the following:

“CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY,
MACHINERY AND ELECTRICAL INSTALLATIONS”

- 2 The following new part A-1 is inserted between part A and part B:

“PART A-1

STRUCTURE OF SHIPS

Regulation 3-1

Structural, mechanical and electrical requirements for ships

In addition to the requirements contained elsewhere in the present regulations, ships shall be designed, constructed and maintained in compliance with the structural, mechanical and electrical requirements of a classification society which is recognized by the Administration in accordance with the provisions of regulation XI/1, or with applicable national standards of the Administration which provide an equivalent level of safety.

Regulation 3-2

Corrosion prevention of seawater ballast tanks

- 1 This regulation applies to oil tankers and bulk carriers constructed on or after 1 July 1998.

2 All dedicated seawater ballast tanks shall have an efficient corrosion prevention system, such as hard protective coatings or equivalent. The coatings should preferably be of a light colour. The scheme for the selection, application and maintenance of the system shall be approved by the Administration, based on the guidelines adopted by the Organization^①. Where appropriate, sacrificial anodes shall also be used."

Regulation 8 - Stability of passenger ships in damaged condition

3 The following is added at the end of paragraph 2.3.1:

"This range may be reduced to a minimum of 10°, in the case where the area under the righting lever curve is that specified in paragraph 2.3.2, increased by the ratio:

$$\frac{15}{\text{Range}}$$

where the range is expressed in degrees."

4 The words "range specified in 2.3.1" in paragraph 2.3.3 are replaced by the words "range of positive stability".

Regulation 25-1 - Application

5 The following sentence is added at the end of existing paragraph 1:

"The requirements in this part shall also apply to cargo ships of 80 m in L_s and upwards but not exceeding 100 m in L_s constructed on or after 1 July 1998."

Regulation 25-3 - Required subdivision index R

6 Existing paragraph 2 is replaced by the following:

"2 The degree of subdivision to be provided shall be determined by the

① Refer to the Guidelines for the selection, application and maintenance of corrosion prevention systems of dedicated seawater ballast tanks, adopted by the Organization by resolution A.798(19).

required subdivision index R , as follows:

.1 for ships over 100 m in L_s :

$$R = (0.002 + 0.0009 L_s)^{1/3},$$

where L_s is in metres; and

.2 for ships of 80 m in L_s and upwards but not exceeding 100 m in length L_s :

$$R = 1 - [1 / (1 + \frac{L_s}{100} \cdot \frac{R_o}{1 - R_o})],$$

where R_o is the value R as calculated in accordance with the formula in subparagraph .1."

Regulation 45 -Precautions against shock, fire and other hazards of electrical origin

7 The words "55 V" in paragraph 1.1.1 are replaced by "50 V".

8 The existing text of chapter III is replaced by the following:

"CHAPTER III

LIFE-SAVING APPLIANCES AND ARRANGEMENTS

PART A - GENERAL

Regulation 1

Application

1 Unless expressly provided otherwise, this chapter shall apply to ships the keels of which are laid or which are at a similar stage of construction on or after 1 July 1998.

2 For the purpose of this chapter the term *a similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tonnes

or 1% of the estimated mass of all structural material, whichever is less.

- 3 For the purpose of this chapter:
 - .1 the expression *ships constructed* means *ships the keels of which are laid or which are at a similar stage of construction*,
 - .2 the expression *all ships* means ships constructed before, on or after 1 July 1998; the expressions *all passenger ships* and *all cargo ships* shall be construed accordingly,
 - .3 a cargo ship, whenever built, which is converted to a passenger ship shall be treated as a passenger ship constructed on the date on which such a conversion commences.

- 4 For ships constructed before 1 July 1998, the Administration shall:
 - .1 ensure that, subject to the provisions of paragraph 4.2, the requirements which are applicable under chapter III of the International Convention for the Safety of Life at Sea, 1974, in force prior to 1 July 1998 to new or existing ships as prescribed by that chapter are complied with; and
 - .2 ensure that when life-saving appliances or arrangements on such ships are replaced or such ships undergo repairs, alterations or modifications of a major character which involve replacement of, or any addition to, their existing life-saving appliances or arrangements, such life-saving appliances or arrangements, in so far as is reasonable and practicable, comply with the requirements of this chapter. However, if a survival craft other than an inflatable liferaft is replaced without replacing its launching appliance, or vice versa, the survival craft or launching appliance may be of the same type as that replaced.

Regulation 2

Exemptions

1 The Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this chapter unreasonable or unnecessary, exempt from those requirements individual ships or classes of ships which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

2 In the case of passenger ships which are employed in special trades for the carriage of large numbers of special trade passengers, such as the pilgrim trade, the Administration, if satisfied that it is impracticable to enforce compliance with the requirements of this chapter, may exempt such ships from those requirements, provided that such ships comply fully with the provisions of:

- .1 the rules annexed to the Special Trade Passenger Ships Agreement, 1971; and
- .2 the rules annexed to the Protocol on Space Requirements for Special Trade Passenger Ships, 1973.

Regulation 3

Definitions

For the purpose of this chapter, unless expressly provided otherwise:

- 1 *Anti-exposure suit* is a protective suit designed for use by rescue boat crews and marine evacuation system parties.
- 2 *Certificated person* is a person who holds a certificate of proficiency in survival craft issued under the authority of, or recognized as valid by, the Administration in accordance with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, in force; or a person who holds a certificate issued or recognized by the Administration of a State not a Party to that Convention for the same purpose as the convention certificate.
- 3 *Detection* is the determination of the location of survivors or survival craft.
- 4 *Embarkation ladder* is the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.
- 5 *Float-free launching* is that method of launching a survival craft whereby the craft is automatically released from a sinking ship and is ready for use.
- 6 *Free-fall launching* is that method of launching a survival craft whereby the craft with its complement of persons and equipment on board is

released and allowed to fall into the sea without any restraining apparatus.

7 *Immersion suit* is a protective suit which reduces the body heat loss of a person wearing it in cold water.

8 *Inflatable appliance* is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept uninflated until ready for use.

9 *Inflated appliance* is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is kept inflated and ready for use at all times.

10 *International Life-Saving Appliance (LSA) Code* (referred to as "the Code" in this chapter) means the International Life-Saving Appliance (LSA) Code adopted by the Maritime Safety Committee of the Organization by resolution MSC.48(66), as it may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I.

11 *Launching appliance or arrangement* is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.

12 *Length* is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline.

13 *Lightest sea-going condition* is the 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.

14 *Marine evacuation system* is an appliance for the rapid transfer of persons from the embarkation deck of a ship to a floating survival craft.

15 *Moulded depth*

- .1 The moulded depth is the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.
- .2 In ships having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design.
- .3 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.

16 *Novel life-saving appliance or arrangement* is a life-saving appliance or arrangement which embodies new features not fully covered by the provisions of this chapter or the Code but which provides an equal or higher standard of safety.

17 *Positive stability* is the ability of a craft to return to its original position after the removal of a heeling moment.

18 *Recovery time* for a rescue boat is the time required to raise the boat to a position where persons on board can disembark to the deck of the ship. Recovery time includes the time required to make preparations for recovery on board the rescue boat such as passing and securing a painter, connecting the rescue boat to the launching appliance, and the time to raise the rescue boat. Recovery time does not include the time needed to lower the launching appliance into position to recover the rescue boat.

19 *Rescue boat* is a boat designed to rescue persons in distress and to marshal survival craft.

20 *Retrieval* is the safe recovery of survivors.

21 *Ro-ro passenger ship* means a passenger ship with ro-ro cargo spaces

or special category spaces as defined in regulation II-2/3.

22 *Short international voyage* is an international voyage in the course of which a ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination nor the return voyage shall exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the ship commences its return voyage to the country in which the voyage began.

23 *Survival craft* is a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.

24 *Thermal protective aid* is a bag or suit made of waterproof material with low thermal conductance.

Regulation 4

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

1 Except as provided in paragraphs 5 and 6, life-saving appliances and arrangements required by this chapter shall be approved by the Administration.

2 Before giving approval to life-saving appliances and arrangements, the Administration shall ensure that such life-saving appliances and arrangements.

- .1 are tested, to confirm that they comply with the requirements of this chapter and the Code, in accordance with the recommendations of the Organization^①; or
- .2 have successfully undergone, to the satisfaction of the Administration, tests which are substantially equivalent to those specified in those recommendations.

① Refer to the Recommendation on Testing of Life-Saving Appliances adopted by the Organization by resolution A.689(17), as it may be amended.

- 3 Before giving approval to novel life-saving appliances or arrangements, the Administration shall ensure that such appliances or arrangements:
- .1 provide safety standards at least equivalent to the requirements of this chapter and the Code and have been evaluated and tested in accordance with the recommendations of the Organization^①; or
 - .2 have successfully undergone, to the satisfaction of the Administration, evaluation and tests which are substantially equivalent to those recommendations.
- 4 Procedures adopted by the Administration for approval shall also include the conditions whereby approval would continue or would be withdrawn.
- 5 Before accepting life-saving appliances and arrangements that have not been previously approved by the Administration, the Administration shall be satisfied that life-saving appliances and arrangements comply with the requirements of this chapter and the Code.
- 6 Life-saving appliances required by this chapter for which detailed specifications are not included in the Code shall be to the satisfaction of the Administration.

Regulation 5

Production tests

The Administration 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.

① Refer to the Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-Saving Appliances and Arrangements adopted by the Organization by resolution A.520 (13).

**PART B - REQUIREMENTS FOR SHIPS AND
LIFE-SAVING APPLIANCES**

SECTION I - PASSENGER SHIPS AND CARGO SHIPS

Regulation 6

Communications

1 Paragraph 2 applies to all passenger ships and to all cargo ships of 300 gross tonnage and upwards.

2 Radio life-saving appliances

2.1 Two-way VHF radiotelephone apparatus

2.1.1 At least three two-way VHF radiotelephone apparatus shall be provided on every passenger ship and on every cargo ship of 500 gross tonnage and upwards. At least two two-way VHF radiotelephone apparatus shall be provided on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage. Such apparatus shall conform to performance standards not inferior to those adopted by the Organization^①. If a fixed two-way VHF radiotelephone apparatus is fitted in a survival craft it shall conform to performance standards not inferior to those adopted by the Organization.

2.1.2 Two-way VHF radiotelephone apparatus provided on board ships prior to 1 February 1992 and not complying fully with the performance standards adopted by the Organization may be accepted by the Administration until 1 February 1999 provided the Administration is satisfied that they are compatible with approved two-way VHF radiotelephone apparatus.

2.2 Radar transponders

① Refer to the Performance Standards for Survival Craft Two-Way VHF Radiotelephone Apparatus, adopted by the Organization by resolution A.809(19), as it may be amended, annex 1 or annex 2 as applicable.

At least one radar transponder shall be carried on each side of every passenger ship and of every cargo ship of 500 gross tonnage and upwards. At least one radar transponder shall be carried on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage. Such radar transponders shall conform to performance standards not inferior to those adopted by the Organization^①. The radar transponders^② shall be stowed in such locations that they can be rapidly placed in any survival craft other than the liferaft or liferafts required by regulation 31.1.4. Alternatively one radar transponder shall be stowed in each survival craft other than those required by regulation 31.1.4. On ships carrying at least two radar transponders and equipped with free-fall lifeboats one of the radar transponders shall be stowed in a free-fall lifeboat and the other located in the immediate vicinity of the navigation bridge so that it can be utilized on board and ready for transfer to any of the other survival craft.

3 Distress flares

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

4 On-board communications and alarm systems

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

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

① Refer to the Performance Standards for Survival Craft Radar Transponders for Use in Search and Rescue Operations, adopted by the Organization by resolution A.802(19), as it may be amended.

② One of these radar transponders may be the radar transponder required by regulation IV/7.1.3.