

GUIDELINES

ON THE APPLICATION OF PROVISIONS OF CHAPTER III OF THE INTERNATIONAL CONVENTION FOR SAFETY OF LIFE AT SEA (SOLAS-74)

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GUIDELINES FOR THE APPLICATION OF PROVISIONS OF CHAPTER III OF SOLAS- 74

The Guidelines for the application of provisions of Chapter III of the International Convention for Safety of Life at Sea (SOLAS-74) have been approved in accordance with the applicable provision and enter into force on 1 January, 2023.

The resolutions and circulars of the International Maritime Organization (IMO), procedural requirements (PR), unified requirements (UR), unified interpretations (UI) and recommendations of the International Association of Classification Societies (IACS) have been taken into consideration in the Guidelines.

The Guidelines are intended for the RS surveyors, ship crews and shipowners.

REVISION HISTORY

(purely editorial amendments are not included in the Revision History)

For this version there are no amendments to be included in the Revision History.

PART I. GENERAL PROVISIONS

1 SCOPE OF APPLICATION

1.1 The Guidelines for the Application of Provisions of Chapter III of the International Convention for the Safety of Life at Sea, 1974 (SOLAS-74)¹, apply to self-propelled cargo ships of 500 gross tonnage (as related to the radio equipment of life-saving appliances on cargo ships of 300 gross tonnage and upward but less than 500) and upward and to passenger ships, regardless of gross tonnage, engaged in international voyages, during the technical supervision of the above ships and ship's life-saving appliances and arrangements in order to establish their compliance with the requirements of Chapter III "Life-saving appliances and arrangements" of the International Convention for the Safety of Life at Sea, 1974 as amended by the 1978 Protocol and the 1988 Protocol, as amended subsequently.²

1.2 These Guidelines are based on the text of Chapter III of SOLAS-74 as amended by IMO resolution MSC.47(66), which entered into force on 1 July, 1998. The provisions of these Guidelines also take into account the subsequent amendments to this Chapter that were in force at the time of issuance of these Guidelines up to and including the amendments adopted by IMO resolution MSC.421(98).

1.3 These Guidelines provide the instructions on the application and interpretation of the regulations of Chapter III of SOLAS-74 taking into account the Uniform Interpretations (UI) and guidelines contained in the IMO resolutions and circulars, as well as UI of the International Association of Classification Societies (IACS).

Appendix 1 includes a list of resolutions (except for amendments to SOLAS-74 and to the International Life-Saving Appliances Code adopted by IMO resolution MSC.48(66) with subsequent amendments³ and the IMO circulars, as well as IACS unified interpretations and recommendations taken into account in these Guidelines.

1.4 The technical supervision including review of technical documentation, survey of ships, life-saving appliances and arrangements, as well as issuance of certificates confirming compliance with the requirements of Chapter III of SOLAS-74 are carried out by the Register as a recognized organization within the powers granted by the respective Maritime Administration (MA) of ship's flag.

If MA of ship's flag gives additional instructions on the application of the provisions of Chapter III of SOLAS-74, then, in case of discrepancy with the provisions of these Guidelines, the instructions of the Maritime Administration (MA) of ship's flag shall be applied.

1.5 Requirements for the survey and issuance of relevant documents for life-saving appliances and arrangements during their manufacture are given in Part I "General Regulations for Technical Supervision" and Part IV "Technical Supervision during Manufacture of Products" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.

1.6 The requirements for suppliers of services, whose results are used during Register surveys of ships, are set forth in Section 7, Part I "General provisions" of the Rules for the Classification Surveys of Ships in Service.

1.7 The instructions on survey of ships and issuance of certificates for ships are given in Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines on Technical Supervision of Ships in Service.

¹ Hereinafter referred to as these Guidelines.

² Hereinafter referred to as SOLAS-74.

³ Hereinafter referred to as the LSA Code.

2 DEFINITIONS AND EXPLANATIONS

2.1 These Guidelines use the terms and definitions given in SOLAS-74 including the definitions specified in Chapter III of this Convention, as well as in the LSA Code.

3 ABBREVIATIONS

3.1 For the purpose of these Guidelines, the following abbreviations have been adopted:

.1 ISM — International Safety Management Code (the International Management Code for the Safe Operation of Ships and for Pollution Prevention as amended) adopted by IMO resolution A.741(18) as amended subsequently.

.2 Ships constructed — ships the keels of which are laid or which are at a similar stage of construction.

.3 Similar stage of construction — the stage at which construction identifiable with a specific ship begins; and

assembly has commenced comprising at least 50 tonnes or 1 % of the estimated mass of all structural materials, whichever is less.

.4 Safety Certificate — Passenger Ship Safety Certificate, or Cargo Ship Safety Equipment Certificate (Cargo Ship Safety Certificate) unless otherwise specified, that are issued in accordance with regs I/12(a)(I), I/12(a)(III), or I/12(a)(V of SOLAS-74).

PART II. REQUIREMENTS FOR SHIPS, LIFE-SAVING APPLIANCES AND ARRANGEMENTS

1 REGULATION 1. APPLICATION

1.1 Application of requirements of chapter III to ships constructed on or after 1 July 1998.

1.1.1 Except for the requirements applicable to all ships regardless of the date of construction, or to ships built on a specific date, as specified in the relevant regulations of Chapter III, as amended, in respect of ships built on or after 1 July 1998, the provisions of the regulations of Chapter III of SOLAS-74, as amended, shall be followed that entered into force on 1 July 1998 and after this date; a list of amendments is given in [Table 1.1.1](#).

Table 1.1.1

List of amendments to chapter III that entered into force on or after 1 July 1998

Year and month of amendments	IMO resolution	Modified regulations ¹	Entry-into-force date
1996 June	MSC.47(66)	Chapter completely replaced	1 July 1998
2000 May	MSC.91(72)	28 (helicopter landing and pick-up areas on ro-ro passenger ships)	1 January 2002
2002 December	MSC.134(76)	26 (radar transponders for liferafts of ro-ro passenger ships)	1 July 2004
2004 May	MSC.152(78)	19 (emergency training and drills for ship damage control) 20 (operational readiness, maintenance and inspections) 32 (immersion suits on cargo ships)	1 July 2006
2004 December	MSC.170(79)	31 (lifeboats and rafts on bulk carriers)	1 July 2006
2006 May	MSC.201(81)	7 (infant lifejackets on passenger ships and additional accessories for lifejackets)	1 July 2010
2006 December	MSC.216(82)	6 (general emergency alarm system) 11 (length of storm ladders) 14 (inflated rescue boats) 19 (emergency training and drills for ship damage control) 20 (operational readiness, maintenance and inspections) 21 (lifeboats and rafts, rescue boats on passenger ships) 26 (additional requirements for ro-ro passenger ships) 31 (lifeboats and rafts, rescue boats on cargo ships) 32 (immersion suits) 35 (ship abandon instructions)	1 July 2008
		4 (approval of life-saving appliances and arrangements of new type) 38 (alternative design and arrangements)	1 July 2010

Year and month of amendments	IMO resolution	Modified regulations ¹	Entry-into-force date
2008 May	MSC.256(84)	6 (search and rescue arrangements for position-fixing) 26 (search and rescue arrangements for position-fixing for liferafts on ro-ro passenger ships)	1 January, 2010
2011 May	MSC.317(89)	1 (lifeboat on-load release gear)	1 January, 2013
2013 June	MSC.350(92)	19 (emergency training and drills for ship damage control)	1 January, 2015
2016 May	MSC.404(96)	3 (new definition: requirements for maintenance, thorough inspection, operational testing, overhaul and repair (MSC.402(98)) 20 (operational readiness, maintenance and inspections)	1 January, 2020
2017 June	MSC.421(98)	1 (application to existing passenger ships the requirements for damage control drills and duties towards passengers on the muster list) 30 (damage control drills on passenger ships) 37 (duties towards passengers on the muster list)	1 January, 2020
2021 May	MSC.482(103)	33 (capability of launching lifeboats with the ship making headway)	1 January 2024 ²
¹ The regulation numbers in the table are given in accordance with the text of chapter III, as respectively amended.			
² The expected date of entry into force of the approved amendments, subject to their adoption in accordance with the procedure established in the SOLAS-74 articles.			

1.2 Application of requirements of Chapter III to ships constructed before 1 July 1998.

1.2.1 Except for the requirements applicable to all ships regardless of the date of construction, or to ships built on a specific date, for ships constructed before 1 July 1998, the provisions of regulation III/1.4 shall apply, subject to the conditions for the application of the regulations of Chapter III of SOLAS-74, as amended, which entered into force before 1 July 1998 on the date of laying the keel of the ship or when it is at a similar stage of construction. For ease of use, a reference list of such amendments is provided in [Table 1.2.1](#).

Table 1.2.1

List of amendments to Chapter III that entered into force before 1 July 1998

Year and month of amendments	IMO resolution	Modified regulations ¹	Entry-into-force date
1981 November	MSC.1(XLV)	1 (application to existing ships) 27 (lifeboats, liferafts and survival craft) 30 (lighting of decks, lifeboats, liferafts, etc.) 38 (emergency lights)	1 September 1984
1983 June	MSC.6(48)	Chapter completely replaced	1 July 1986
1989 April	MSC.13(57)	41 (tables of life-saving signals in lifeboats)	1 February, 1992
1991 May	MSC.22(59)	18 (emergency training and drills for ship damage control)	1 January 1994

Year and month of amendments	IMO resolution	Modified regulations ¹	Entry-into-force date
1992 December	MSC.27(61)	50 (ship's general alarm system)	1 October, 1994
1995 November	IMO conference resolution 1	3 (definition of ro-ro passenger ship) 6 (public address systems in passenger ships) 24-1 (requirements for ro-ro passenger ships) 24-2 (passenger information) 24-3 (helicopter landing and pick-up areas) 24-4 (decision support system for masters of passenger ships)	1 July 1997

¹ The regulation numbers in the table are given in accordance with the text of chapter III, as respectively amended.

1.3 On-load lifeboat release and retrieval systems (regulation 1.5).

1.3.1 Regulation III/1.5 of SOLAS-74 introduced by amendments that were adopted by IMO resolution MSC.317(89), as well as related amendments to the LSA Code (refer to IMO resolution MSC.320(89)) and the provisions of IMO circulars MSC.1/Circ.1392, MSC.1/Circ.1393 and MSC.1/Circ.1584 apply to the lifeboats designed to be launched by davits or using a single fall and hook system (single point suspension arrangement) except for free-fall lifeboats.

1.3.2 In ships constructed on or after 1 July 2014, on-load lifeboat release and retrieval systems shall fully comply with the requirements of 4.4.7.6 of the LSA Code, as amended by IMO resolution MSC.320(89).

1.3.3 In other ships, the on-load lifeboat release and retrieval systems shall comply with the requirements of 4.4.7.6.4 – 4.4.7.6.6 of the LSA Code, as amended by IMO resolution MSC.320(89).

1.3.4 Based on the results of the compliance assessment carried out before 1 July 2013 according to the procedure established by these Guidelines for the evaluation and replacement of the release and retrieval systems (see IMO circular MSC.1/Circ.1392, as amended by IMO circular MSC.1/Circ.1584), the existing types of on-load lifeboat release and retrieval systems are recognized as:

- compliant, whose use can be continued after thorough inspection and testing;
- compliant, whose use can be continued subject to modification, as well as thorough inspection and testing;
- non-compliant, to be replaced.

Information regarding the compliance/required modification or non-compliance of the system is given in the IMO database GISIS¹ in the “Evaluation of hooks” section.

1.3.5 During surveys of life-saving appliances and arrangements of ships in service required by regs 7 and 8 of Chapter I of SOLAS-74, the procedures given in [1.3.5.1 – 1.3.5.3](#) are carried out to confirm compliance with the requirements of reg. III/1.5 of SOLAS-74.

1.3.5.1 For ships constructed on 1 July 2014 and after this date, during their survey, the RS surveyor shall check if the documents that confirm the compliance of the lifeboat release and retrieval system with the requirements of 4.4.7.6 of the LSA Code, as amended by IMO resolution MSC.320(89) are available;

1.3.5.2 For ships constructed before 1 July 2014, the IMO GISIS database is checked for the presence of information on the release systems used in ship's lifeboat. At the same time, the following is checked on board the above ships:

- .1** the availability of a document on acceptance of the replaced release and retrieval system according to the form prescribed by IMO circular MSC.1/Circ.1392 (in the Register, according to form 4.1.9); or
- .2** for systems recognized as compliant under the condition of modification, the availability of records in the certificates and reports on the ship's survey regarding the modification made; or
- .3** for the systems recognized to be compliant without the need for modification, the availability of documents that confirm the completion of annual thorough inspections and 5-year tests of lifeboat release and retrieval systems, as required by reg. III/20.11 of SOLAS-74.

¹ Global Integrated Shipping Information System (GISIS) is a system, which is managed by the IMO Secretariat and contains information delivered to IMO by Maritime Administrations (<https://gisis.imo.org>).

1.3.5.3 The release and retrieval systems of the types, for which the compliance assessment procedure in accordance with IMO circular MSC.1/Circ.1392 has not been submitted within the specified time limits (i.e., information on which is not available in the IMO GISIS database), or which do not have documents confirming the compliance of the system with the requirements of 4.4.7.6 of the LSA Code, as amended by IMO resolution MSC.320(89), are recognized as non-compliant and are subject to replacement before completion of the survey in order to issue, confirm or renew the Safety Certificate.

2 REGULATION 2. EXEMPTIONS

2.1 Instructions on registration of exemptions from compliance with the requirements of international conventions for ships under construction are given in Section 11, Part II "Technical Documentation" of the Rules for Technical Supervision during the Construction of Ships and the Manufacture of Materials and Products for Ships.

2.2 The instructions on issuing exemptions from compliance with the requirements of international conventions for ships in service are given in 2.1.7 and 4.3, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines on Technical Supervision of Ships in Service.

3 REGULATION 3. DEFINITIONS

3.1 Suez canal crew is considered as transit crew on a domestic voyage, and shall not be included in the total number of persons on board for which lifesaving appliances are provided.

3.2 Internal communication systems are defined as all types of two-way voice communication systems and public address system and general alarm system.

3.3 Light service draught is ship's draught with the ship on even keel, without cargo, with 10 % fuel remaining and in the case of a passenger ship with the full number of passengers and crew and their luggage.

The greatest launching height of a free-fall lifeboat shall be determined based on the light service draught as defined in reg. III/3.13 of SOLAS-74.

The water surface used in determining a distance referred to in 6.1.4.4 of the LSA Code is the waterline normally associated with the light service draught as defined in reg. III/3.13 of SOLAS-74.

The trim and roll referred to in 6.1.1.1 and 4.7.3 of the LSA Code shall only be used to determine the capability of a lifeboat to be safely launched within operational functionality and without contact with the ship under given conditions, and not to determine its greatest launching height.

4 REGULATION 4. EVALUATION, TESTING AND APPROVAL OF LIFE-SAVING APPLIANCES AND ARRANGEMENTS

- 4.1** Approval of all mandatory internal communication systems shall be either, by:
- of the relevant functional, technical, operational and installation requirements according to the applicable class notations (this will require submission of documents and drawings);
 - a test report from a recognized test laboratory showing compliance with the environmental and electromagnetic compatibility requirements according to the RS rules or IEC 60945.
- By following the procedure for type approval:
- in particular, for passenger ships, the public address system shall be subject to type approval.

5 REGULATION 6. MEANS OF COMMUNICATION

5.1 In rooms and compartments with high ambient noise level, the equipment used for compliance with the mandatory two-way voice communication requirements shall have facilities for efficient communication in noisy environments. Portable two-way voice communication equipment, with charger arrangement, may be used for compliance with the requirements of reg III/6.4.1 of SOLAS-74 provided that there is sufficient radio communication coverage in the specified locations.

5.2 If portable VHF GMDSS two-way radiotelephone radio is used for compliance with the requirements for mandatory two-way voice communication between emergency control stations, muster and embarkation stations and strategic positions on board, then the following additional requirements apply:

chargeable batteries, with a capacity to operate the equipment continuously for at least 5 hours, to be provided for each unit at the required position

power supply for chargers shall be in accordance with: regs. II-1/42 (passenger ships) and II- 1/43 (cargo ships) of SOLAS-74.

5.3 Key positions are those locations, other than the navigation bridge, from where it is supposed to control emergencies and from where general emergency alarms can be activated. The minimum number of required locations from where a general emergency alarm system shall be capable of being operated is at least two. A fire control station or a cargo control station shall normally be regarded as strategic positions.

5.4 The general emergency alarm system shall be arranged with closed loop(s) or with fuses/breakers at each deck, such that failure in any one loop does not affect other loops or the central unit.

5.5 Normal crew working space: Includes spaces where routine maintenance tasks and local control of machinery operated at sea are undertaken. The following rooms will normally be included in the above definition for normal crew working space: engine room, emergency generator room, steering gear room and thruster room.

5.6 It is acceptable to integrate the public address and general alarms functions within the same system, or with the fire alarm system, subject to the following:

compliance with 5.8 of IMO Resolution 1021(26) as amended.

the integrated system shall be type approved or case-by-case approved, according to provision defined under regs. III/4 and III/5 of SOLAS-74.

the integrated system shall be arranged to minimize single failure, which implies provision of:

.1 system central with redundant design i.e. duplication of signal generator, amplifiers, central control unit and any other essential part of the system. For passenger vessels, the required provision of two separate racks/centrals is considered to satisfy the above duplication requirement. For cargo vessels a single rack arrangement is acceptable;

.2 at least two separated and segregated cable routes, one from each amplifier. The segregation of the cable loops shall be such that in case of failure of one loop in one area, the general/fire alarm and public address announcements shall continue to be audible in that area.

The audibility requirements defined in 7.2.1.2–7.2.1.3 of the LSA Code are considered applicable for the normal case, i.e. with both/all loudspeaker loops functional. Hence, in the case of failure of one or more loops, reduced audibility is accepted. If the speech intelligibility of the public address system is determined to be unintelligible at any location(s) where passengers and/or crew may be present, then any suitable means of communication shall be used to inform passengers and crew of the emergency.

5.7 Audibility requirements for the public address system on passenger ships shall be met for the vehicle decks.

5.8 In compliance with reg. 6.5.2 of SOLAS-74 and of 7.2.2.1 of the LSA Code the spaces where crew members or passengers or both are normally present all accommodation areas and all public spaces shall be included.

5.9 In accordance with reg. III/6.5.3.1 of SOLAS-74, two separate and fully independent racks shall at least be provided, with each rack being located in the separate main vertical zone, or separated to provide the maximum level of redundancy.

Locating both racks in the same compartment or room shall be avoided, but may be accepted subject to special precautions such as separation by bulkheads insulated to class A-60.

5.10 In accordance with reg. III/6.5.3.2 of SOLAS-74 and in accordance with Chapter 8 of the Code for the Safety of Special Purpose Ships, 2008 (refer to IMO resolution MSC.266(84) as amended), the provisions of IMO circular MSC/Circ.808 are applicable to the public address system on special-purpose ships with more than 60 people on board.

6 REGULATION 7. PERSONAL LIFE-SAVING APPLIANCES

6.1 The number of lifejackets for people on watch shall be minimum two (2) in the engine room and two (2) in the wheelhouse.

6.2 On each side of the ship, there shall be a minimum of one lifebuoy with an attached line. No lifebuoy light or lifebuoy smoke signal shall be attached to this lifebuoy.

6.3 The three immersion suits for the rescue boat crew may be regarded as part of the number of suits provided for the total number of persons on board, for which lifesaving appliances is provided. This provided that the rescue boat crew are able to meet the requirement for 5 minutes preparation time, including to pick up the suits from where they are stowed. All immersion suits approved to be worn with approved lifejacket shall be stowed together with a lifejacket.

6.4 For free-fall lifeboats inflatable lifejackets is strongly recommended.

6.5 Warm climates are considered between 30° North and 30° South, or according to IMO circular MSC/Circ.1046.

7 REGULATION 9. INSTRUCTION MANUALS

7.1 Posters and pictograms in accordance with reg. III/9.2 of SOLAS-74 shall be made using the symbols recommended by IMO resolution A.760(18) with reference to IMO resolution A.1116(30) as amended.

8 REGULATION 11. SURVIVAL CRAFT MUSTER AND EMBARKATION ARRANGEMENTS

8.1 If the embarkation ladders are not installed adjacent to any non-davit launched liferaft, means shall be provided to ensure that the liferaft painter can be easily transferred from the stowage location to the embarkation position.

8.2 For passenger ships, descent units are accepted as replacement for embarkation ladders provided that:

.1 the number of descent units is the same as for embarkation ladders. Embarkation ladder or descent-unit shall be provided at each launching station or at every two adjacent embarkation stations. At least one embarkation ladder shall be provided on each side of the ship in addition to the descent units;

.2 the descent units are able to reach the waterline from the deck at a trim of up to 10°, and a list of up to 20° either way in the lightest seagoing condition;

.3 there are openings in the rails (70 – 80 cm wide) to avoid that persons need to climb over the rail before descending;

.4 the fixing of the eyebolt is found acceptable by the attending Register's surveyor;

.5 the various components transferring the load e.g. support arms, hooks, links, shackles, wires, etc. shall be made according to recognized standards, with a minimum safety factor of at least 6, and are delivered with documentation for grade of material and testing. The units shall be stamped with SWL;

.6 one embarkation ladder is provided on each side of the ship in addition to the descent units.

For remotely located liferafts, a knotted rope or launching appliance is acceptable as "other means of embarkation". A knotted rope is not acceptable for launching deck above 10 m in the lightest seagoing condition.

For ships contracted on or after 1 January 2008 an embarkation ladder or other means of embarkation enabling descent to the water in a controlled manner as per reg. III/17 of SOLAS- 74 to be provided. For these ships a knotted rope is not acceptable.

9 REGULATION 13. STOWAGE OF SURVIVAL CRAFT

9.1 On cargo ships of 80 m in length and upwards but less than 120 m in length, the aft part of each davit launched liferaft shall be minimum 4 m forward of the vessel's propeller.

On cargo ships of 120 m in length and upwards and passenger ships of 80 m in length and upwards, the aft part of each davit launched liferaft shall be minimum 6 m forward of ship's propeller. Liferafts shall not be stowed directly above any embarkation station.

**10 REGULATION 16. SURVIVAL CRAFT LAUNCHING
AND RECOVERY ARRANGEMENTS**

10.1 The launching arrangement shall be designed so that the survival craft can be launched without having to be pushed outside the deck edge when the craft is unfavourably heeled 20°.

10.2 Lifelines for partially enclosed lifeboats shall be of 20 mm to 24 mm diameter good quality manila rope or synthetic rope of equivalent strength.

**11 REGULATION 17. RESCUE BOAT EMBARKATION, LAUNCHING
AND RECOVERY ARRANGEMENTS**

11.1 The launching arrangement shall be designed so that the rescue boat can be launched without having to be pushed outside the deck edge when the ship is unfavourably heeled 20°.

The aft body of the rescue boat shall be at least 4 m ahead of ship's propeller. The painter shall be provided with the required attachment point for launching with the ship making headway at a speed of 5 knots. The location of such painter attachment points shall be suitable to assure an angle less than 45° between painter and horizontal and to avoid disturbance from bow-wave.

11.2 When the hull shape, painter attachment point, davit type and rescue boat type are identical on series-produced ships, the test documentation may be based on the first ship in the series in accordance with 5.4, part 2 of IMO resolution MSC.81(70). Foul weather recovery strops shall be designed with a safety factor of 6 for the weight of a fully loaded and equipped rescue boat.

12 REGULATION 17-1. RECOVERY OF PERSONS FROM THE WATER

12.1 Plans and procedures for recovery of persons from the water in accordance with reg. III/17-1 of SOLAS-74 according to IMO resolution MSC.338(91), shall be ship-specific and take into account the provisions of the Guidelines for the development of plans and procedures for recovery of persons from the water (refer to IMO circular MSC.1/Circ.1447).

12.2 The plans and procedures shall identify the specific ship equipment intended to be used for recovery of persons from the water. Procedures developed in accordance with the requirements of IMO circular MSC.1/Circ.1447 shall specify the conditions under which the recovery operations may be conducted without causing undue hazard to the ship and ship's crew taking into account the following (but not limited to):

- manoeuvrability of the ship;

- freeboard;

- points on the ship to which persons may be recovered;

- characteristics and limitations of equipment intended to be used for recovery operations;

- available personal protective equipment;

- wind force, direction and spray;

- significant wave height;

- safety of navigation.

12.3 Dedicated recovery equipment, if provided, shall be clearly marked with the maximum number of persons it can accommodate, based on a weight of 82.5 kg per person.

12.4 The recovery plans and procedures shall be considered as a part of the documentation included in the ship safety management system (SMS) related to emergency preparedness according to Section 8 of the ISM Code.

12.5 The recovery plans and procedures are subject to verification during surveys for the issuance, confirmation and renewal of the Certificate.

13 REGULATION 20. OPERATIONAL READINESS, MAINTENANCE AND INSPECTIONS

13.1 Maintenance of falls (regulation III/20.4).

13.1.1 When carrying out periodic inspections of falls used in launching gear, the replacement criteria given in Section 9 of Annex 2-6, Annex 2 to the Rules for the Classification Surveys of Ships in Service, unless otherwise provided by the instructions of the launching gear manufacturer.

13.2 Spares and repair equipment (regulation III/20.5).

13.2.1 Lists of spares and repair equipment for the required life-saving appliances on board the ship shall be included in the maintenance manuals for the life-saving appliances in accordance with regulation III/36.

13.3 Weekly and monthly inspections (regulations III/20.6 and 20.7).

13.3.1 In accordance with IMO resolution MSC.402(96), weekly and monthly inspections of life-saving appliances and ship's general alarms shall be conducted by shipboard personnel under the direction of a senior ship's officer in accordance with the maintenance manuals provided for in reg. III/36 of SOLAS-74. To conduct such inspections, service providers may also be involved that are recognized by the Register or Flag State MA for the relevant activity.

13.3.2 When conducting a monthly inspection of lifebuoys, as well as lifejackets other than inflatable lifejackets, it is recommended that, to determine the signs of their limit state, the relevant provisions of Annex 4 to the Guidelines on Technical Supervision of Ships in Service be applied.

13.3.3 Monthly inspections of immersion suits and anti-exposure suits shall include at least an examination of the material and seams, lights, batteries, whistles, retro-reflecting material, inflatable chambers, as well as functionality of zip fasteners (refer also to IMO circular MSC/Circ.1047).

13.3.4 At intervals not exceeding three years, every immersion suit and anti-exposure suit shall be air-pressure tested by a recognized company to verify the strength and tightness of the material, seams and closures; such a test shall be made annually for immersion suits and anti-exposure suits over ten years old (refer also to IMO circular MSC/Circ.1114). Such a test may be carried out on board the ship if suitable equipment is available.

13.3.5 The entries in ship's logbook on the results of weekly and monthly inspections are subject to verification during surveys to confirm and renew the Certificate.

13.4 Servicing of life-saving equipment specified in regulations III/20.8 and III/20.9.

13.4.1 The following life-saving equipment shall be serviced at recognized service stations at intervals not exceeding 12 months, as well as in case of entry into water, activation of gas inflation system and detection of damage:

- .1 inflatable liferafts;
- .2 inflatable lifejackets;
- .3 marine evacuation systems;
- .4 inflated lifeboats;
- .5 hydrostatic release units (other than disposable hydrostatic release units).

13.4.2 Disposable hydrostatic release units shall be replaced after the expiration date as determined in accordance with the manufacturer's instructions.

13.4.3 Stations servicing the equipment specified in 13.4.1 shall be competent to service it, have proper servicing facilities, use only properly trained personnel and be recognized by the Register as a service provider for the relevant type of activity.

Conditions for the approval of the servicing stations for inflatable liferafts are given in IMO resolution A.761(18), as amended by IMO resolutions MSC.55(66) and MSC.388(94)¹.

13.4.4 In the event that maintenance of the equipment specified in 13.4.1 is practically impossible to perform within the prescribed period, upon agreement with the Flag State MA, the Register may extend the period for maintenance up to 18 months based on regs III/20.8.1 and III/20.9.1 of SOLAS-74 taking into account the provisions of IMO circular MSC.1/Circ.955.

13.4.5 Taking into account reg. III/20.8.3 of SOLAS-74 for the standard inflatable liferafts of a new type approved in compliance with IMO circular MSC.1/Circ.1328, upon agreement with the Register, the intervals may be extended provided that:

¹ refer to Annex 18 to the Guidelines for the Technical Supervision of Ships in Service.

each inflatable liferaft shall be checked and tested for compliance with the above standard for extended intervals between servicing periods not exceeding 30 months;

liferaft system shall be checked on board by qualified personnel at intervals not exceeding 12 months, however, where it is impracticable, the Register may extend this period to 18 months;

liferafts shall be serviced at the servicing station at intervals not exceeding 5 years.

The instructions for the survey of ships equipped with inflatable liferafts with an extended interval of periodic maintenance are given in Annex 54 to the Guidelines for the Technical Supervision of Ships in Service.

13.4.6 Additional instructions on survey of life-saving appliances and arrangements mentioned in 4.1 are given in 4.1.1.2, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines for the Technical Supervision of Ships in Service.

13.5 Marking of stowage locations (regulation III/20.10).

13.5.1 The stowage locations for life-saving appliances required by reg. III/20.10 of SOLAS-74 shall be marked with symbols in accordance with the recommendations of IMO resolution A.760(18), as amended by IMO resolution A.1116(30).

The symbols introduced by IMO resolution A.1116(30) shall be used to mark the equipment stowage locations on ships built on or after 1 January 2019, as well as on ships built before 1 January 2019 and subjected to repair, conversion, modification or change on or after 1 January 2019 in relation to equipment regulated by Chapter III of SOLAS-74.

13.6 Maintenance, thorough examination, operational testing, overhaul¹ and repair of lifeboats, rescue boats and fast rescue boats, launching appliances and release gear (reg. III/20.11).

13.6.1 The requirements of reg. III/20.11 of SOLAS-74, as amended by IMO resolution MSC.404(96), apply to all ships.

13.6.2 Annual surveys referred to in the regulation mean:

survey for renewal of the Passenger Ship Safety Certificate in accordance with reg. I/7(a)(II) of SOLAS-74 or the Cargo Ship Safety Equipment Certificate in accordance with reg. I/8(a)(II) of SOLAS-74;

periodic and annual surveys to confirm the Cargo Ship Safety Equipment Certificate in accordance with regs I/8(a)(III) and I/8(a)(IV) of SOLAS-74.

13.6.3 Maintenance, thorough inspection, operational testing, overhaul and repair of lifeboats, rescue boats and fast rescue boats, launching appliances and release gear shall be carried out by recognized service providers in accordance with the requirements of IMO resolution MSC.402(96).

[Table 13.6.3](#) gives a summary information on a scope of inspections and tests of life-saving appliances in accordance with reg. III/20.11 of SOLAS-74 and IMO resolution MSC.402(96).

Table 13.6.3

Scope of inspections and tests of life-saving appliances in accordance with regulation III/20.11 and IMO resolution MSC.402(96)

o.	Rescue equipment	Annual inspection*	Annual tests**	5-year overhaul***	5-year tests****
.	Launching appliances of lifeboats, rescue boats and liferafts	A1	B1	-	D1
.	Release gear for davit-launched lifeboats and rescue boats (including fast rescue boats)	A1	B2	C1	D2 ¹
.	Release systems for free-fall lifeboats	A1	B2	C1	B2 ²
.	Davit-launched liferaft automatic release hooks	A1	B2 ³	C1	D2
.	Lifeboats and rescue boats, including fast rescue boats	A1 ⁴	B3 ⁴	-	-
Symbols:					

¹ Overhaul means a periodic thorough examination including opening-up and dismantling of the units and components of the release gear, as determined by the manufacturer, if needed.

o.	Rescue equipment	Annual inspection*	Annual tests**	5-year overhaul***	5-year tests****
	<p>A1 – thorough examination (including visual examination and maintenance) of structures, systems and other items of equipment;</p> <p>B1 – dynamic testing of the launching gear winch brake at maximum lowering speed using a test load equal to the mass of the lifeboat, rescue boat or liferaft without persons on board;</p> <p>B2 – operational test of all types of release gear (including test of the unloaded release function);</p> <p>B3 – operational testing of lifeboats and rescue boats;</p> <p>C1 – dismantling and overhaul of the lifeboat and rescue boat hook on-load release device, as well as the automatic release hook of liferaft, inspection, wear measurements and maintenance, repair (if necessary) followed by assembly, installation and adjustment;</p> <p>D1 – dynamic testing of the launching gear winch brake at maximum lowering speed applying a test load of equal to 1.1 times the weight of the lifeboat, rescue boat or liferaft with full complement of persons and equipment;</p> <p>D2 – operational test of lifeboat and rescue boat release hooks under load, as well as liferaft automatic release hooks, using a proof load equal to 1.1 times the weight of the lifeboat (rescue boat, liferaft) with full complement of persons and equipment</p> <p>* Refer to regs III/20.11.1.1, 20.11.2.1, 20.11.3.1 and 20.11.4 of SOLAS-74.</p> <p>** Refer to regs III/20.11.1.2, 20.11.2.1, 20.11.3.1 and 20.11.4 of SOLAS-74.</p> <p>*** Refer to regs III/20.11.2.2 and 20.11.3.2 of SOLAS-74.</p> <p>**** Refer to regs III/20.11.1.2, 20.11.2.2, 20.11.2.3 and 20.11.3.2 of SOLAS-74.</p> <p>¹ Operational tests within a scope of the 5-year test shall also be carried out every time the appliance is examined, overhauled or repaired.</p> <p>² The 5-year operational test of the release systems shall be either free-fall with the launch crew on board only, or a simulated launch using a non-launch test device required by para 4.7.6.4 of the LSA Code.</p> <p>³ The operational test of the automatic hook release function is carried out by manually releasing the hook with a load of 150 kg and then automatically releasing with a conventional load of 200 kg when it is lowered to the ground or with a raft after it is launched.</p> <p>⁴ For lifeboats and rescue boats with buoyancy casings of foam material, the provisions of IACS Recommendation No. 122 (Jan 2012) given in Annex 49 to the Guidelines for the Technical Supervision of Ships in Service shall also be taken into account.</p>				

13.6.4 The thorough examinations, overhauls and operational tests required by reg. III/20.11 of SOLAS-74, as amended, carried out at intervals of at least once every 5 years, shall be done in the presence of the RS surveyor (refer to IMO circular MSC.1/Circ.1618 and IACS UI SC144 (Rev.3 Oct 2017)¹).

13.6.5 Additional instructions on inspections and testing provided for by reg. III/20.11 of SOLAS-74 are given in 4.1.1.2.13 – 4.1.1.2.16, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines for the Technical Supervision of Ships in Service.

¹The document is available on the IACS website www.iacs.org.uk

14 REGULATION 21. LIFEBOATS, LIFERAFTS AND RESCUE BOATS ON PASSENGER SHIPS

14.1 More than four davit launched liferafts assigned to one davit are in general not acceptable on passenger ships. However, if the installation test in 6.2.6, part 2, of IMO resolution. MSC.81(70) shows that more than 4 liferafts are possible to launch within the 30 minutes evacuation time, more rafts are acceptable.

15 REGULATION 22. PERSONAL LIFE-SAVING APPLIANCES ON PASSENGER SHIPS

15.1 In determining the minimum number and distribution of liferafts required in accordance with reg. III/22.1.1 of SOLAS-74, lifebuoys provided with a lifeline and light installed in accordance with the requirements of IMO circular MSC.1/Circular.1331 to comply with the provisions of reg. II-1/3.9.2 of SOLAS-74 are not taken into account.

15.2 For ships where lifejackets are stowed in cabins more than two decks below or above the muster stations, additional lifejackets shall be provided corresponding to the number of persons berthed within the most populated main vertical zone (MVZ). However, if the number of passengers berthed on decks more than two decks below or above the muster stations are more than the number within the most populated MVZ, then additional lifejackets corresponding to this number shall be provided.

16 REGULATION 26. EXTRA REQUIREMENTS FOR RO-RO PASSENGER SHIPS

16.1 Liferafts carried on ro-ro passenger ships shall be fitted with a search and rescue locating device in the ratio of one search and rescue locating device for every four liferafts.

16.2 The search and rescue locating device shall be mounted inside the liferaft so its antenna is more than one metre above the sea level when the liferaft is deployed, except that for canopied reversible liferafts the search and rescue locating device shall be so arranged as to be readily accessed and erected by survivors.

16.3 Each search and rescue locating device shall be arranged to be manually erected when the liferaft is deployed. Containers of liferafts fitted with search and rescue locating devices shall be clearly marked.

17 REGULATION 29. DECISION SUPPORT SYSTEM FOR MASTERS OF PASSENGER SHIPS

17.1 In developing the emergency plans required by reg. III/29.3 of SOLAS-74, it is recommended that the provisions of the Revised guidelines for a structure of integrated system of contingency planning for shipboard emergencies adopted by IMO resolution A.1072(28) be taken into account.

18 REGULATION 31. LIFEBOATS, LIFERAFTS AND CARGO SHIP RESCUE BOATS OF CARGO SHIPS

18.1 A liferaft is considered to be easily transferred side-to-side at a single weather deck level only on a flat, unobstructed surface. Such a liferaft shall weigh less than 185 kg and shall not be certified for more than 25 persons. Transferring the liferafts up stairs, through doors or corridors is not considered easy.

18.2 A davit used for both a rescue boat and survival craft is only acceptable if it can be shown that the requirements of regs III/13.1.1, III/13.1.3, III/14.1, III/14.3 and III/ 31.1.5 of SOLAS- 74 are met for stowage, i.e., all life-saving appliances and rescue boats, for which the launching appliance is intended to serve, can be launched under gravity or accumulated mechanical energy in the specified time without interfering with the use of other life-saving appliances.

18.3 Cargo ships are not allowed to use more than two liferafts launched from a single raft, however, if the test required in 6.2.6, part 2, of IMO resolution MSC.81(70) shows that within 10 minutes of evacuation can be launch more than 2 liferafts, more liferafts can be operated with one launching device.

18.4 A free-fall lifeboat cannot be accepted as a rescue boat.

19 REGULATION 32. PERSONAL LIFE-SAVING APPLIANCES OF CARGO SHIPS

19.1 In determining the minimum number and distribution of liferafts required in accordance with reg. III/32.1.1 of SOLAS-74, lifebuoys provided with a lifeline and light installed in accordance with the requirements of IMO Circular MSC.1/Circular.1331 to comply with the provisions of reg. II-1/3.9.2 of SOLAS-74 are not taken into account.

19.2 A number of lifejackets and immersion suits for people on watch shall be minimum 2 in the engine room and 2 in the wheelhouse and 2 close to remotely located survival craft.

**20 REGULATION 33. SURVIVAL CRAFT EMBARKATION AND LAUNCHING
ARRANGEMENTS ON CARGO SHIPS**

20.1 Securing point shall be provided for the painter necessary to enabling launching of the lifeboats on board ships with GT 20,000 and upwards when the ship is at 5 knots headway speed. The location of such securing points shall be suitable to assure an angle less than 45° between painter and horizontal and to avoid disturbance from bow-wave.

21 REGULATION 34. COMPLIANCE OF LIFE-SAVING APPLIANCES AND ARRANGEMENTS WITH LSA CODE

21.1 In ships constructed on or after 1 July 1998, life-saving appliances and arrangements shall comply with the applicable requirements of the LSA Code, as amended, entered in force on the date the ship was built. For ease of use, a reference list of the amendment to the LSA Code that entered into force after 1 July 1998 is provided in [Table 21.1](#).

Table 21.1.

List of amendments to LSA Code

Year and month of amendments	IMO resolution	Modified requirements	Entry-into-force date
2006 May	MSC.207(81)	chapter I (general requirements for life-saving appliances) chapter II (lifebuoys and their smoke signals, lifejackets, immersion suits, anti-exposure suits)	1 July 2010
2006 December	MSC.218(82)	chapter I (definitions, marking of pyrotechnics) chapter IV (liferrafts, inflatable liferafts, rigid liferafts, lifeboats and their release mechanisms, free-fall lifeboats) chapter V (rescue boats, inflated rescue boats, fast rescue boats) chapter VI (launching appliances for lifeboats, rescue boats and fast rescue boats, launching gear winch brakes) chapter VII (general ship alarm)	1 July 2008
2008 December	MSC.272(85)	chapter IV (lifeboats, free-fall lifeboats) chapter V (rescue boats)	1 July 2010
2010 May	MSC.293(87)	chapter IV (inflatable liferafts, rigid liferafts)	1 July 2012
2011 May	MSC.320(89)	chapter IV (lifeboat release mechanisms)	1 January 2013
2014 May	MSC.368(93)	chapter II (lifejackets)	1 January 2016
2017 June	MSC.425(98)	chapter VI (launching gear winches)	1 January 2020
2019 June	MSC.459(101)	chapter IV (lifeboats equipped with two propulsion systems, free-fall lifeboats) chapter VI (launching appliances for rescue boats on cargo ships)	1 January 2024 ¹
2021 May	MSC.485(103)	chapter IV (free-fall lifeboats)	1 January 2024 ¹

¹ Expected date of entry into force of the amendments subject to their adoption in accordance with the procedure established in the SOLAS-74 articles.

21.2 Except for the requirements applicable to all ships regardless of the date of construction, or to ships built on a specific date, as specified in the relevant regs of Chapter III SOLAS-74, life-saving appliances and arrangements on ships constructed before 1 July 1998 shall meet at least the requirements of this Chapter in force on the date of construction of the ship, subject to the provisions of reg. III/1.4 of SOLAS-74.

21.3 When replacing or installing new life-saving appliances on board, it is necessary to follow the provisions of reg. III/1.4 of SOLAS-74.

21.4 When applying the color requirements for rigid watertight hulls, fully enclosed lifeboats and external canopies for partially enclosed lifeboats, "highly visible color" is a color with a strong chromatic content (pure achromatic color). White, all shades of gray and similar colors shall not be accepted as 'comparable' colors.

21.5 The connection of each release gear to the hull of a fall-launched lifeboat or rescue boat shall be subjected to a load equal to the weight of the boat with its full complement of persons and equipment (or two times the weight of the boat in the case of single fall systems).

There shall be no damage to the release gear or its connection to the boat.

The test does not apply to the secondary means of launching for freefall lifeboats.

The test may be carried out on board the ship or onshore, either at the manufacturer's plant or at the shipyard, by using an appropriate mock-up of the launching arrangements which is equivalent to the launching arrangement installed on board the ship. The "weight of the boat" to

be considered for the load in the case of single fall systems is the "weight of the boat with its full complement of persons and equipment", which accordingly shall be multiplied by two.

21.6 Release mechanism components: all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in the marine environment without the need for coatings or galvanizing.

All Interlocks ("mechanical protection" of on load release), which include hydrostatic components in the operating mechanism, shall also be of material corrosion resistant in the marine environment. Design and manufacturing tolerances shall be such that expected wear over the life of the mechanism does not adversely affect its proper functioning.

Mechanical actuating links, such as actuating cables, shall be watertight and shall not be located in open or unprotected areas. Where stainless steel having a Pitting Resistance Equivalent Number ($PREN = 1 \times \% Cr + 3.3 (\% Mo + 0.5 \times \% W) + 16 \times \% N$) of 22 or more is chosen, such stainless steel does not need to be subjected to ISO 9227:2012 or other equivalent recognized national standard, whose application is agreed with the Register.

Where stainless steel having a $PREN < 22$, or another corrosion resistant material/alloy is chosen, the material is to be qualified by corrosion test according to ISO 9227:2012 or other equivalent recognized national standard, whose use is agreed with the Register.

When the test is carried out in accordance with ISO 9227:2012, neutral salt spray (NSS) is to be used, with 1000 hours test duration for components outside the lifeboat, and 160 hours for those inside the lifeboat. The salt spray tests may be conducted by using round specimens (diameter is 14 mm) according to IACS UR W2.4.2. After the salt spray test, the release mechanism shall be subjected to load and release test as described in IMO resolution MSC.81(70), as amended by IMO resolution MSC.321(89), to demonstrate satisfactory operation. The load and release shall be repeated 10 times.

Where specimens are used for the salt spray tests, tensile tests shall be conducted in lieu of the load and release test. The results from the tests shall be in order to verify that the reduction in the ultimate tensile strength and reduction in cross sectional area ratio is less than 5% between corrosion tested and non-corrosion tested specimens.

Where austenitic stainless steels (e.g. 316L or 316) are used for welded structures, the risk of sensitisation to intergranular corrosion is to be addressed by the component manufacturer's quality control system. Austenitic stainless steels 201, 304, 321 and 347 are susceptible to pitting and crevice corrosion and therefore not suitable for this application.

For operating cables covered with sheath and installed inside the lifeboat, inner cables made of austenitic stainless steels 304 are acceptable without the corrosion test above.

21.7 The hanging off arrangement (including the connections to the lifeboat RRS and davit) shall be designed with a calculated factor of safety of 6 based on the ultimate strength of the materials used, and mass of the lifeboat when loaded with its full complement of fuel and equipment (without people) plus 1000 kg equally distributed between the falls.

List of resolutions (other than amendments to the SOLAS-74 Convention and the LSA Code) and IMO circulars, as well as IACS unified interpretations and recommendations taken into account in these Guidelines

Document	Name	SOLAS-74 Chapter III regulation
IMO resolutions		
A.760(18)	Symbols related to life-saving appliances and arrangements (refer also to A.1116(30))	III/9.2, 20.10
A.761(18)	Recommendation on conditions for the approval of servicing stations for inflatable liferafts (refer also to MSC.55(66) and MSC.388(94))	III/20.8, 20.9
A.1116(30)	Escape route signs and equipment location markings (see also A.760(18))	III/9.2
A.1072(28)	Revised Guidelines for a Structure of an Integrated System of Contingency Planning for Shipboard Emergencies	III/29
MSC.402(96)	Requirements for maintenance, thorough examination, operational testing, overhaul and repair	III/3.25, 20.6, 20.7, 20.11
IMO Circulars		
MSC.1/Circ.955	Servicing of life-saving appliances and radiocommunication equipment under the Harmonized System of Survey and Certification (HSSC)	III/20.8, 20.9
MSC/Circ.1047	Guidelines for monthly shipboard inspection of immersion suits and anti-exposure suits by ships' crews	III/20.6, 20.7
MSC/Circ.1114	Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures	III/20.6, 20.7
MSC.1/Circ.1328	Guidelines for the approval of inflatable liferafts subject to extended service intervals not exceeding 30 months	III/20.8.3
MSC.1/Circ.1392 (Corr.1)	Guidelines for evaluation and replacement of lifeboat release and retrieval systems (refer also to MSC.1/Circ.1584)	III/1.5
MSC.1/Circ.1393	Early application of new regulation III/1.5 of SOLAS-74	III/1.5
MSC.1/Circ.1447	Guidelines for the development of plans and procedures for recovery of persons from the water	III/17-1
MSC.1/Circ.1578	Guidelines on safety during abandon ship drills using lifeboats	III/19.3.3
MSC.1/Circ.1618	Unified interpretations of SOLAS chapter III	III/20.11
IACS UI		
SC144 (Rev.3 Oct 2017)	Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats, Rescue Boats and Fast Rescue Boats, Launching Appliances and Release Gear	III/20.11
SC 233 (Rev.1 Nov 2012)	Lifeboat exterior colour	III/34 LSA Code item 1.2.2.6 as amended by MSC Res. 207(81) reads
SC 244 (Rev.1 Nov 2012, Corr.1 Nov 2015)	Load testing of hooks for primary release of lifeboats and rescue boats	III/34 IMO Res. MSC.81(70), Part 2, Ch. 5.3.4
SC 248 (Rev.1 Apr 2015)	Greatest Launching Height for a Free-Fall Lifeboat	III/3.13
SC 267 (Rev.1 Nov 2012)	Implementation of the requirements relating to lifeboat release and retrieval systems	III/34 LSA Code item 4.4.7.6 as amended by MSC Res. 320(89) reads
SC 293 (Feb 2012)	Lifebuoy Arrangements for Means of Embarkation/Disembarkation	II-1/3-9, III/7
IACS recommendations		
Rec.122 (Jan 2012)	Integral Buoyancy Casings in Lifeboats and Rescue Boats	III/20.6, 20.7, 20.11.4

Russian Maritime Register of Shipping

**Guidelines for the application of provisions of Chapter III of the
International Convention for the Safety of Life at Sea SOLAS-74**

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