Subject

Summary of the Outcomes of MSC 110

ClassNK
Technical Information

No. TEC-1363
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To whom it may concern

The 110th session of the Maritime Safety Committee (MSC 110) was held from 18 to 27 June 2025. Since the minutes, resolutions and circulars of the meeting were recently released from the IMO, a summary of the decisions taken at MSC 110 is provided below for your information.

1. Adopted mandatory requirements
Mandatory requirements adopted at MSC 110 are as follows:

(1) Amendments to SOLAS Chapter II-2 and V (See attachment 1, 4, 12)
Amendments to SOLAS regulation II-2/11 to correct the wording regarding structural integrity and amendments to regulation V/23 regarding pilot transfer arrangements. In addition, the performance standards for pilot transfer arrangements, which are made mandatory by the amended regulation V/23, were also adopted. It was also agreed to invite a voluntary early implementation at that time.
For details regarding pilot transfer arrangements, please refer to section 7.

Applied: on or after 1 January 2028.
The requirements regarding pilot transfer arrangements apply also to existing ships.

(2) Amendments to HSC Code (See attachment 2, 3)
Amendments to 1994 HSC Code and 2000 HSC Code regarding the numbers of lifejackets for infants and adults.

Applied: on or after 1 January 2028.
Existing ships shall also comply with the requirements no later than the date of the first renewal survey on or after 1 January 2028.

2. Approved mandatory requirements
The following mandatory requirements were approved at this session and are expected to be adopted at MSC 111 to be held in May 2026.

(1) Amendments to IP Code (See attachment 5)
Amendments to Part IV of IP Code to change the assumed mass of each industrial personnel from 75 kg to 90 kg in the ship stability calculation.

(To be continued)

(2) Amendments to 2011 ESP Code (See attachment 6)
Amendments to 2011 ESP Code regarding Remote Inspection Technique (RIT). This includes the procedures for certification of a firm engaged in close-up survey of hull structures using RIT. In addition, the guidelines on the use of RIT will be in place by the entry into force of the amendments to the 2011 ESP Code, to ensure a standardized and safe approach of the use of RIT.

(3) Amendments to 1988 Load Lines Protocol (See attachment 7)
Amendments to 1988 Load Lines Protocol regulation 25 regarding guard rails. If adopted by MSC 111, ships the keels of which are laid, or which are at a similar stage of construction on or after 1 January 2028 will be required to have guard rails with 3 bars and openings not exceed 230 mm below the lowest course of the guard rails and 380 mm at the other courses, regardless of the location of the guardrail.

(4) Amendments to LSA Code (See attachment 8)
Amendments to LSA Code regarding the arrangement to test the release system under load without launching the free-fall lifeboat into the water.

(5) Amendments to SOLAS Chapter V and HSC Code (See attachment 9, 10, 11)
Amendments to SOLAS Chapter V and HSC Code to allow the VHF Data Exchange System (VDES), which has function of VHF data exchange in addition to Automatic Identification System (AIS), to install ships as an alternative to AIS. In addition, the performance standards for shipborne VDES are expected to be approved at MSC 111.

3. Approved unified interpretations, etc.
The following unified interpretations (UIs), guidelines, guidance and etc. were approved during MSC 110.

3.1 Unified interpretations

(1) Unified interpretation of SOLAS regulation II-1/12.6.2 (See attachment 14)
Unified interpretation of SOLAS regulation II-1/12.6.2 to clarify remotely controlled valve complying with the SOLAS regulation.

(2) Unified interpretation of 6.1.1.3 and 6.1.2.2 of the LSA Code (See attachment 15)
Unified interpretation of 6.1.1.3 and 6.1.2.2 of the LSA Code to accept manual hoisting up of a dedicated rescue boat for cargo ships from stowed position.

(3) Unified interpretation of SOLAS regulation II-2 and the HSC Code (See attachment 16)
Unified interpretation of SOLAS regulation II-2/10.11.2.2 and 7.9.4 of the HSC Code regarding the permissible values of perfluorooctane sulfonic acid (PFOS) in fire-extinguishing media and procedures for Verification.

(To be continued)

(4) Unified interpretation of the FSS Code (See attachment 17)
Unified interpretation of 2.4.2.2 of chapter 9 of the FSS Code regarding the acceptable spacings of combined smoke and heat detectors.

(5) Unified interpretation of SOLAS regulation II-1/3-13.2.4 (See attachment 18)
Unified interpretation of SOLAS regulation II-1/3-13.2.4 regarding the factual statement for existing non-certified lifting appliances including sample format.

3.2 Guidelines and guidance etc.

(1) Interim guidelines for emergency towing arrangements on ships other than tankers (See attachment 13)
Interim guidelines for emergency towing arrangements on ships other than tankers to specify strength, safety factor, type approval, prototype test, etc. for towing arrangements.

(2) Revised guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation (See attachment 19)
Amendments to guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation (MSC.1/Circ.1331) to add requirements for the side net, which is an alternative to the safety net, and the revision of the test procedure of accommodation ladder to be conducted every five years.

4. Consideration of requirements for Maritime Autonomous Surface Ships (MASS)
In the recent development of MASS, it has been discussed at MSC on an international instrument of MASS (MASS Code). Non-mandatory MASS Code mainly on goal and functional requirements for items such as safety, operation, security, etc. is currently under consideration.
At this session, chapters other than Chapter 4 "TERMINOLOGY AND DEFINITIONS", Chapter 5 "CERTIFICATE AND SURVEY", Chapter 8 "OPERATIONAL CONTEXT", Chapter 9 "SYSTEM DESIGN", Chapter 10 "SOFTWARE PRINCIPLES" and Chapter 15 "HUMAN ELEMENT" were finalized.
Also, regarding Chapter 15 "Human Element" (including Chapters 5, 8, 9 and 10), its finalization will proceed based on the outcome of the discussions in due course. In the future work, the non-mandatory MASS Code is scheduled to be finalized at MSC 111 in 2026, and thereafter, it is planned to be developed as a mandatory code with a view to adoption by 2030.

At this time, the structure of the non-mandatory MASS Code will be as follows.
Part 1: Introduction (purpose and application of the code, etc.)
Part 2: Main principles for MASS and MASS functions (certificate and survey, approval process, risk assessment, operational context, human element, etc.)
Part 3: Goals, functional requirements and expected performance (specified for each item such as safety of navigation and remote operations)

(To be continued)

5. A safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels

At MSC 107, identification and updating a list of new technologies and alternative fuels to reduce greenhouse gas (GHG) emissions and their technical assessment, as well as a review of safety obstacles and gaps in the current IMO instruments that may impede the use of the alternative fuel or new technology, were initiated.

At this session, based on the recommendations to address each of the identified barriers and gaps in current IMO instruments reported by the correspondence group, amendments to conventions or cords, development of guidelines, etc. are instructed to each sub-committee.

For example:

- Develop safety requirements for onboard carbon capture and storage systems on ships (CCC)
- Develop requirements for the Safety of Ships Using Lithium-ion Battery Installations (SSE)
- Update the Code of Safety for Nuclear Merchant Ships (Resolution A.491(XII)) (SDC)
- Develop Interim guidelines for the Safety of Ships Using Wind Propulsion and Wind Assisted Power (SDC)

The discussion on nuclear power was limited to safety at this session, and cooperation with the International Atomic Energy Agency (IAEA), legal status, relationships with other treaties such as the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and environmental impact will be discussed at the future session.

6. Cyber risk management

In view of the growing importance of cyber security on board ships and the need for security risk countermeasures, resolution MSC.428(98) on maritime cyber risk management and the non-mandatory guidelines (MSC-FAL.1/Circ.3/Rev.3) for reference in the implementation of this resolution have been developed.

At the previous session, it was agreed to initiate discussions to further develop cybersecurity standards for ships and port facilities as next steps to enhance maritime cybersecurity.

At this session, based on the report of the related working group, it was agreed to develop a non-mandatory cybersecurity Code of which requirements are goal-based and include risk management. As the development of the Code would be subject to the approval of a future session of the committee, preliminary work on the Code will be undertaken by an informal group of experts.

7. Amendments to SOLAS regulation V/23 regarding pilot transfer arrangements (See attachment 1, 4, 12)

SOLAS regulation V/23 requires to provide ships engaged in the course of which pilots may be employed with pilot transfer arrangements. Requirements regarding pilot transfer arrangements have been revised several times, and current requirements have applied since 2012. Even after the revision, fall accidents caused by improper maintenance and installation had occurred. Therefore, consideration of new safety measures had been commenced at MSC 104 held in 2021 and amendments to SOLAS regulation V/23 and the Performance Standard for Pilot Transfer Arrangements were adopted at this session.

(To be continued)

The followings are the key points to pay special attention to. See attachment 1 and 4 for details.

- Pilot ladders and manropes shall be removed from service, within 36 months after the date of manufacture or within 30 months after the date of being placed into service, whichever comes first. (Part D)
- At least one spare pilot ladder and one spare set of manropes shall be carried on board the ship. (Part D)
- A pilot ladder and manropes shall be type-approved by the Administration as complying with these performance standards. (Part F)
- All strong points, shackles and securing ropes shall have a breaking strength of not less than 48 kN (currently, not less than 24 kN is required). (Part A)
- If a pilot ladder is to be stowed on a winch drum, the drum diameter shall be not less than 0.16 m and the drum shall be provided with sunken securing points. (Part C)

This amendment will be applied on or after 1 January 2028, noting that IMO Circular was issued to invite a voluntary early implementation. Pilot transfer arrangements for existing ships will also be required to comply with these requirements.
For specific inspection procedures and other details regarding this amendment will be provided in ClassNK Technical Information separately in due course.

For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)
External Affairs Department, Administration Center Annex, Head Office
Address: 3-3 Kioi-cho, Chiyoda-ku, Tokyo 102-0094, Japan
Tel.: +81-3-5226-2038
Fax: +81-3-5226-2734
E-mail: xad@classnk.or.jp

(To be continued)

Attachment:

1. RESOLUTION MSC.572(110)
2. RESOLUTION MSC.573(110)
3. RESOLUTION MSC.574(110)
4. RESOLUTION MSC.576(110)
5. DRAFT AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)
6. DRAFT AMENDMENTS TO THE INTERNATIONAL CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS, 2011 (2011 ESP CODE)
7. DRAFT AMENDMENTS TO THE PROTOCOL OF 1988 RELATING TO THE INTERNATIONAL CONVENTION ON LOAD LINES, 1966 (1988 LOAD LINES PROTOCOL)
8. DRAFT AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCE CODE (LSA CODE)
9. DRAFT AMENDMENTS TO SOLAS CHAPTER V AND THE APPENDIX
10. DRAFT AMENDMENTS TO 1994 HSC CODE
11. DRAFT AMENDMENTS TO 2000 HSC CODE
12. MSC.1/Circ.1690 Voluntary early implementation of the amendments to SOLAS regulation V/23 on pilot transfer arrangements
13. MSC.1/Circ.1691 Interim guidelines for emergency towing arrangements on ships other than tankers
14. MSC.1/Circ.1692 Unified interpretation of SOLAS regulation II-1/12.6.2
15. MSC.1/Circ.1693 Unified interpretations of paragraphs 6.1.1.3 and 6.1.2.2 of the LSA Code
16. MSC.1/Circ.1694 Unified interpretations of SOLAS chapter II-2, and the 1994 and 2000 HSC Codes
17. MSC.1/Circ.1695 Unified interpretation of the FSS Code
18. MSC.1/Circ.1696 Unified interpretation of SOLAS regulation II-1/3-13.2.4
19. MSC.1/Circ.1331/Rev.1 Revised guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation

ANNEX 1

RESOLUTION MSC.572(110)
(adopted on 26 June 2025)

AMENDMENTS TO CHAPTERS II-2 AND V OF 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 ALSO article VIII(b) of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I,

HAVING CONSIDERED, at its 110th session, amendments to the Convention proposed and circulated in accordance with article VIII(b)(i) of the Convention,

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 said amendments shall be deemed to have been accepted on 1 July 2027, 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 the Secretary-General of their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2028 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of 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 ALSO 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-2
CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION

Part C
Suppression of fire

Regulation 11
Structural integrity

2 Material of hull, superstructures, structural bulkheads, decks and deckhouses

1 Section 2 is replaced by the following:

"**2 Material of hull, superstructures, structural bulkheads, decks and deckhouses**

The hull, superstructures, structural bulkheads, decks and deckhouses shall be constructed of steel or other equivalent material. For the purpose of applying the definition of steel or other equivalent material as given in regulation 3.43, the "applicable fire exposure" shall be according to the integrity and insulation standards given in tables 9.1 to 9.8. For example, where divisions such as decks or sides and ends of deckhouses are permitted to have "B-0" fire integrity, the "applicable fire exposure" shall be half an hour."

4 Machinery spaces of category A

4.1 Crowns and casings

2 Paragraph 4.1 is replaced by the following:

"**4.1 Crowns and casings**

Crowns and casings of machinery spaces of category A shall be of steel construction and shall be insulated as required by tables 9.1 and 9.3 for passenger ships or tables 9.5 and 9.7 for cargo ships, as appropriate."

CHAPTER V
SAFETY OF NAVIGATION

Regulation 23
Pilot transfer arrangements

3 Regulation 23 is replaced by the following, together with the associated footnote:

"Regulation 23 – Pilot transfer arrangements

1 Ships on which pilots may be employed shall be provided with pilot transfer arrangements.

2 Pilot transfer arrangements shall enable pilots and other personnel to embark and disembark safely in all seagoing conditions of draught and trim.

3 Pilot transfer arrangements provided in accordance with paragraph 1 and installed on or after 1 January 2028 shall be designed, manufactured, constructed, secured and installed in accordance with the introduction and parts A, B and C of the performance standards adopted by the Maritime Safety Committee by resolution MSC.576(110), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

4 Pilot transfer arrangements installed before 1 January 2028 on ships to which chapter I applies shall comply with the requirements provided in paragraph 3 not later than the first survey* on or after 1 January 2029.

5 Pilot transfer arrangements installed before 1 January 2028 on ships to which chapter I does not apply shall comply with the requirements provided in paragraph 3 not later than 1 January 2030.

6 Inspection, stowage, maintenance, replacement and familiarization of all pilot transfer arrangements, regardless of the installation date, shall comply with the introduction and parts D and E of the performance standards adopted by the Maritime Safety Committee by resolution MSC.576(110), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

7 For the purpose of the present regulation, the expression "installed on or after 1 January 2028" means a contractual delivery date for the pilot transfer arrangement or, in the absence of a contractual delivery date, the actual delivery date of the arrangement to the ship on or after 1 January 2028.

8 Pilot transfer arrangements provided for in paragraph 3 shall be approved by the Administration in accordance with part F of the performance standards adopted by the Maritime Safety Committee by resolution MSC.576(110), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

9 Pilot transfer arrangements provided for in paragraph 3 on ships to which chapter I applies shall be inspected in accordance with regulations I/6 and I/7 or I/8. Pilot transfer arrangements on ships to which chapter I does not apply shall be inspected to the satisfaction of the Administration.

10 Mechanical pilot hoists shall not be used.

11 Adequate means of illumination, either fixed or portable, shall be capable of illuminating all pilot transfer arrangements overside and the position on deck where pilots and other personnel embark or disembark. Portable lights, when used, shall have brackets to permit their positioning.

12 Where a pilot or other personnel suspect the pilot transfer arrangement provided is non-compliant, they should inform the master and refuse to use the arrangement until it is made compliant.

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* Refer to *Unified interpretation of the term "first survey" referred to in SOLAS regulations* (MSC.1/Circ.1290)."

APPENDIX

CERTIFICATES

Record of equipment for passenger ship safety (Form P)

4 In section 5 (Details of navigational systems and equipment), new entries 16.1 to 16.3 are added as follows:

"16.1 Pilot ladder and manropes

16.2 Spare pilot ladder and manropes

16.3 Means of securing a pilot ladder at intermediate length"

Record of equipment for cargo ship safety (Form E)

5 In section 3 (Details of navigational systems and equipment), new entries 17.1 to 17.3 are added as follows:

"17.1 Pilot ladder and manropes

17.2 Spare pilot ladder and manropes

17.3 Means of securing a pilot ladder at intermediate length"

Record of equipment for cargo ship safety (Form C)

6 In section 5 (Details of navigational systems and equipment), new entries 17.1 to 17.3 are added as follows:

"17.1 Pilot ladder and manropes

17.2 Spare pilot ladder and manropes

17.3 Means of securing a pilot ladder at intermediate length"

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ANNEX 2

RESOLUTION MSC.573(110)
(adopted on 26 June 2025)

AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 1994 (1994 HSC CODE)

THE MARITIME SAFETY COMMITTEE,

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

NOTING resolution MSC.36(63), by which it adopted the International Code of Safety for High-Speed Craft ("the 1994 HSC Code"), which has become mandatory under chapter X of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation X/1.1 of the Convention concerning the procedure for amending the 1994 HSC Code,

HAVING CONSIDERED, at its 110th session, amendments to the 1994 HSC Code proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the 1994 HSC Code, 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 said amendments shall be deemed to have been accepted on 1 July 2027, 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 the Secretary-General of their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2028 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of 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 ALSO 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 CODE OF SAFETY FOR HIGH-SPEED CRAFT, 1994 (1994 HSC CODE)

CHAPTER 8
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

8.3 Personal life-saving appliances

1 Paragraph 8.3.5 is replaced by the following:

"8.3.5 A lifejacket complying with the requirements of regulation III/32.1 or III/32.2 of the Convention should be provided for every person on board the craft and, in addition:

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

.2 every passenger craft should carry lifejackets for not less than 5% of the total number of persons on board. These lifejackets should be stowed in conspicuous places on deck or at muster stations;

.3 a sufficient number of lifejackets should be carried for persons on watch and for use at remotely located survival craft and rescue boat stations;

.4 all lifejackets should be fitted with a light, which complies with the requirements of regulation III/32.3 of the Convention; and

.5 in addition, on all craft, the following should be provided no later than the date of the first renewal survey on or after 1 January 2028:

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

.2 for passenger craft on voyages 24 hours or greater, infant lifejackets should be provided for each infant on board; and

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

ANNEX 1

FORM OF SAFETY CERTIFICATE FOR HIGH-SPEED CRAFT

Record of Equipment for High-Speed Craft Safety Certificate

2 Details of life-saving appliances

1 In the table for "Details of life-saving appliances", a new entry 8.3 is inserted under existing entry 8.2, as follows:

"

8.3	Number suitable for infants	……..

"

5 Details of navigational systems and equipment

2 In the table for "Details of navigational systems and equipment", new entries 16.1 to 16.3 are added under existing entry 15, as follows:

"

16.1	Pilot ladder and manropes	……..
16.2	Spare pilot ladder and manropes	……..
16.3	Means of securing a pilot ladder at intermediate length	……..

"

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ANNEX 3

RESOLUTION MSC.574(110)
(adopted on 26 June 2025)

AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

THE MARITIME SAFETY COMMITTEE,

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

NOTING resolution MSC.97(73), by which it adopted the International Code of Safety for High-Speed Craft, 2000 ("the 2000 HSC Code"), which has become mandatory under chapter X of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation X/1.2 of the Convention concerning the procedure for amending the 2000 HSC Code,

HAVING CONSIDERED, at its 110th session, amendments to the 2000 HSC Code proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the 2000 HSC Code, 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 said amendments shall be deemed to have been accepted on 1 July 2027, 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 the Secretary-General of their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2028 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of 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 ALSO 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 CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

CHAPTER 8
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

8.3 Personal life-saving appliances

1 Paragraph 8.3.5 is replaced by the following:

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

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

.2 every passenger craft shall carry lifejackets for not less than 5% of the total number of persons on board. These lifejackets shall be stowed in conspicuous places on deck or at assembly stations;

.3 a sufficient number of lifejackets shall be carried for persons on watch and for use at remotely located survival craft and rescue boat stations;

.4 all lifejackets shall be fitted with a light, which complies with the requirements of paragraph 2.2.3 of the LSA Code;

.5 in addition, on craft constructed on or after 1 January 2028, the following shall be provided:

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

.2 for passenger craft on voyages 24 hours or greater, infant lifejackets shall be provided for each infant on board; and

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

.6 craft constructed before 1 January 2028 shall comply with sub-paragraph.5 no later than the date of the first renewal survey on or after 1 January 2028."

ANNEX 1

FORM OF HIGH-SPEED CRAFT SAFETY CERTIFICATE AND RECORD OF EQUIPMENT

Record of Equipment for High-Speed Craft Safety Certificate

2 Details of life-saving appliances

1 In the table for "Details of life-saving appliances", a new entry 8.3 is inserted under existing entry 8.2, as follows:

"

8.3	Number suitable for infants	……..

"

3 Details of navigational systems and equipment

2 In the table for "Details of navigational systems and equipment", new entries 18.1 to 18.3 are added under existing entry 17, as follows:

"

18.1	Pilot ladder and manropes	……..
18.2	Spare pilot ladder and manropes	……..
18.3	Means of securing a pilot ladder at intermediate length	……..

"

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ANNEX 5

RESOLUTION MSC.576(110)
(adopted on 26 June 2025)

PERFORMANCE STANDARDS FOR PILOT TRANSFER ARRANGEMENTS

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO resolution A.886(21) on *Procedure for the adoption of, and amendments to, performance standards and technical specifications*, by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto, shall be performed by the Maritime Safety Committee, on behalf of the Organization,

RECALLING FURTHER resolution A.1045(27) on *Pilot transfer arrangements*, which was amended by resolution A.1108(29),

NOTING resolution MSC.572(110) by which it adopted amendments to regulation V/23 of the International Convention for the Safety of Life at Sea, 1974 ("the Convention") to make the performance standards on pilot transfer arrangements mandatory under the Convention,

RECOGNIZING that the responsibility for safe practices for the transfer of pilots and other personnel rests with each person involved in the activity including the shipowner, operator, master and crew, pilotage provider, pilot and pilot boat crew, as well as the person being transferred,

HAVING CONSIDERED, at its 110th session, the recommendation made by the Sub-Committee on Navigation, Communications and Search and Rescue at its eleventh session,

1 ADOPTS the *Performance standards for pilot transfer arrangements*, set out in the annex to the present resolution;

2 INVITES Contracting Governments to the Convention to note that the *Performance standards for pilot transfer arrangements* will take effect on 1 January 2028 upon entry into force of the amendments to regulation V/23 of the Convention adopted by resolution MSC.572(110);

3 NOTES that, under the provisions of regulation V/23 of the Convention, amendments to the *Performance standards for pilot transfer arrangements* shall be adopted, brought into force and take effect in accordance with the provisions of article VIII of the Convention concerning the amendment procedure applicable to the annex to the Convention other than chapter I;

4 REQUESTS the Secretary-General to transmit certified copies of this resolution and the text of the *Performance standards for pilot transfer arrangements* contained in the annex to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and the annex to all Members of the Organization which are not Contracting Governments to the Convention;

6 INVITES Governments to encourage the development of novel technologies aimed at improving the safety of pilot transfer arrangements and to keep the Organization advised of any positive results;

7 URGES all parties concerned to observe both the spirit and intent of these performance standards, to ensure safety is not compromised;

8 INVITES the Assembly to revoke resolutions A.1045(27) and A.1108(29) as of 1 April 2030, and endorse the action taken by the Maritime Safety Committee.

ANNEX

PERFORMANCE STANDARDS FOR PILOT TRANSFER ARRANGEMENTS

INTRODUCTION

1 Purpose

These performance standards provide for requirements for the design, manufacture, construction, rigging, installation of pilot ladder winch reels, operational readiness, onboard inspection and maintenance, familiarization and approval in relation to pilot transfer arrangements required under regulation V/23 of the 1974 SOLAS Convention, adopted by resolution MSC.572(110).

2 Definitions

For the purpose of these performance standards, the following definitions apply:

.1 *Pilot transfer arrangements* refers to all equipment and arrangements used solely for the embarkation and disembarkation of pilots and other personnel, including pilot ladders, accommodation ladders, embarkation platforms, manropes, pilot ladder winch reels, securing arrangements and other associated equipment.

.2 *Point of access* means the location at which pilots or other personnel transfer between a pilot ladder or accommodation ladder and the deck or side opening of a ship.

.3 *Manropes* means ropes hung on either side of a pilot ladder for assistance in ascending and descending.

.4 *Trapdoor* means an aperture with a cover located in a platform allowing the pilot ladder and manropes to pass through without obstruction or distortion and used by pilots or other personnel to transfer between the pilot ladder and the accommodation ladder.

.5 *Securing a pilot ladder at intermediate length* means securing a pilot ladder at a point other than the thimble ends.

3 General

3.1 Pilot transfer arrangements shall be designed, installed, inspected, maintained and rigged to enable pilots and other personnel to embark and disembark safely in all seagoing conditions of draught and trim.

3.2 The height of climb on a pilot ladder shall not be less than 1.5 m and not more than 9 m from the surface of the water to the point of access in all seagoing conditions of draught and trim. Whenever the height of climb on a pilot ladder from the surface of the water to the point of access exceeds 9 m, the ship shall be provided with and rig an accommodation ladder in conjunction with the pilot ladder (i.e. a combination arrangement).

3.3 Where the height of climb is less than 1.5 m from the surface of the water and a pilot ladder is not used as part of a pilot transfer arrangement, this does not exempt any vessel or personnel involved in the transfer from ensuring that the transfer is completed safely, is adequately risk assessed and any equipment other than a pilot ladder is used in accordance with these performance standards.

3.4 Pilot transfer arrangements shall be provided to enable pilots and other personnel to embark and disembark safely on either side of the ship. Necessary equipment shall be carried on each side unless the equipment is capable of being transferred for use on either side.

3.5 Pilot ladders and manropes used for the transfer of pilots and other personnel shall be clearly identified with permanent marking so as to enable identification of each appliance for the purposes of survey, inspection and record-keeping.

3.6 Reference in these performance standards to an accommodation ladder[1] includes a sloping ladder used as part of the pilot transfer arrangements.

3.7 The onboard inspection and rigging of the pilot transfer arrangements and the embarkation and disembarkation of pilots and other personnel shall be supervised by a designated responsible officer. During the transfer of pilots or other personnel, the responsible officer shall have means of communication with the navigation bridge and shall arrange for the escort of the pilot by a safe route to and from the navigation bridge and other personnel to an appropriate safe location.

PART A – DESIGN, MANUFACTURE AND CONSTRUCTION

4 Pilot ladders

4.1 The steps of the pilot ladders shall comply with the following requirements:

.1 if made of hardwood, they shall be made in one piece, free of any knots. Wood shall not be treated or coated with paint, varnish or other coatings;

.2 if made of material other than hardwood, they shall be made from resilient plastic or rubber of equivalent strength, stiffness and durability;

.3 they shall have an efficient non-slip surface;

.4 they shall be long enough to accommodate a distance between the inner surface of the side ropes of not less than 400 mm, and shall be not less than 115 mm in width and 25 mm in thickness, excluding any non-slip device or grooving;

.5 they shall be equally spaced not less than 310 mm and not more than 350 mm apart measured from the top of each step or spreader step;

.6 they shall be secured in such a manner that each will remain horizontal; and

.7 the four lowest steps shall be of rubber of sufficient strength and stiffness or other equivalent material.

[1] Refer to SOLAS regulation II-1/3-9 on Means of embarkation on and disembarkation from ships.

4.2 Pilot ladders with more than five steps shall have spreader steps complying with paragraph 4.1 and each spreader step shall be not less than 1.8 m in length. The lowest spreader step shall be the fifth step from the bottom of the ladder and additional spreader steps shall be provided at such intervals as will prevent the pilot ladder from twisting, conforming to standards acceptable to the Organization.[2]

4.3 Permanent measuring marking shall be provided at a regular interval of every three steps, approximately every 1 m, throughout the length of the pilot ladder consistent with ladder design, use and maintenance in order to facilitate the rigging of the ladder to the required height.

4.4 Pilot ladders shall be permanently marked by the manufacturer with at least the following information on the underside of the uppermost step and the lowermost spreader step:

.1 the name of the manufacturer;

.2 an equipment serial number or other means of unique identification which the manufacturer shall be able to validate;

.3 date of manufacture; and

.4 name and details of the approving authority.

4.5 Pilot ladders shall be of a single length capable of reaching the surface of the water from the point of access or, where a combination arrangement is used, from the platform of the combination arrangement, in all seagoing conditions of draught and trim and the specific condition of an adverse list of 15° in the lightest seagoing condition.

4.6 The side ropes on each side of the pilot ladder shall consist of a double length of uncovered rope not less than 20 mm and not more than 22 mm in diameter. The double length shall be made from a continuous length of rope with no joints having a breaking strength of at least 24 kN. The midpoint of the double length shall be located on a thimble. The ends of each of the side ropes shall be properly finished.[3]

4.7 Each of the side ropes shall be mildew-resistant manila rope[4] or other material of equivalent strength, durability, elongation characteristics and grip which has been protected against actinic degradation.

4.8 Each of the side ropes shall be secured together both above and below each step with an arrangement properly designed for this purpose. Where a seizing method[5] with step fixtures, such as chocks or wedges, is used, it shall hold each step horizontal in all planes at all times. Where a mechanical clamping device is used to secure each of the side ropes together, it shall grip each of the side ropes in the pair independently and with the same grip force. Any surface of a mechanical clamping device that pilots or other personnel may handle shall be suitable to be grasped by bare hands. The use of cable ties, u-clamps or worm driven clips as a means of securing steps is prohibited.

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2 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – Part 1: Design and specification*.

3 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – Part 1: Design and specification*.

4 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 1181:2004 Fibre ropes – Manila and sisal – 3-, 4- and 8-strand ropes.

5 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – Part 1: Design and specification*.

5 Combination arrangements

5.1 The length of the accommodation ladder shall be sufficient to ensure that its angle of slope does not exceed 45°. In ships with large draught ranges, several pilot ladder hanging positions shall be provided, resulting in lesser angles of slope. The accommodation ladder shall be at least 600 mm in width. The accommodation ladder hoisting and lowering mechanism shall include protection that ensures the mechanism cannot be inadvertently operated during the transfer of pilots and other personnel.

5.2 Intermediate platforms, if fitted, shall be self-levelling. Treads and steps of the accommodation ladder shall be so designed that an adequate and safe anti-skid foothold is provided at the operative angles.

5.3 The accommodation ladder and platform shall be equipped on both sides with stanchions and rigid handrails, but if hand ropes are used, they shall be tight and properly secured. The vertical space between the handrail or hand rope and the stringers of the ladder shall be securely fenced.

5.4 Accommodation ladders, together with any suspension arrangements or attachments fitted and intended for use in accordance with these performance standards, shall meet the requirements for the means of embarkation on and disembarkation from ships as required by regulation II-1/3-9.

5.5 In the case of a combination arrangement using an accommodation ladder with a trapdoor in the lower platform, the lower platform shall:

.1 have an aperture with dimensions not less than 750 mm x 750 mm which is open to the ship's hull on the inboard side and which is designed to ensure that the horizontal distance between the pilot ladder and adjacent edges of the aperture is between 0.1 and 0.2 m;

.2 be designed and constructed to:

.1 allow the pilot ladder and manropes to pass through the aperture without obstruction or distortion;

.2 ensure the pilot ladder lies flat against the ship's side;

.3 ensure that structural members shall not interfere with or lay against the pilot ladders; and

.4 ensure the highest step of the pilot ladder is at least 2 m above the lower platform and remain compliant with part B;

.3 not be provided with fixtures other than the frame referred to in paragraph 5.5.7, which allows a pilot ladder to be suspended from the lower platform of the accommodation ladder;

.4 have a trapdoor which opens upwards and which is secured flat on the embarkation platform or against a stanchion either at the aft end or outboard side of the platform, and in any case not obstructing the access to the ship;

.5 be provided with sufficient round handholds with a diameter of no less than 28 mm and not more than 32 mm to allow safe mounting or dismounting of the pilot ladder. The structure of the platform itself shall not be relied upon to provide handholds;

.6 be provided with sufficient handholds with a height of not less than 1.2 m above the platform; and

.7 where a structural frame is used to comply with paragraph 5.5.2, the following shall apply:

.1 the accommodation ladder platform, frame, pilot ladder connection points, accommodation ladder winch, running gear, pad eyes of manropes and locking arrangements shall be designed to withstand vertical forces of at least 48 kN;

.2 the highest step of the pilot ladder is at least 2 m above the platform and is secured to pad eyes on the inboard side of the frame so that it rests firmly against the side of the ship; and

.3 manropes are secured directly to additional pad eyes 2 m above the platform on the inboard side of the frame.

5.6 On all ships to which section 5 applies, a two-tone visual mark, the upper half being white and the lower half being red, not less than 4 m in height and 0.5 m in width shall be provided in the midship half-length of the ship in the vicinity of the pilot boarding position to indicate to the user whether or not a combination arrangement is to be rigged. The dividing line between the upper and the lower halves of the pilot line shall be 9 m below the point of access.

6 Securing arrangements

6.1 All strong points, shackles and securing ropes provided or used in accordance with part A or part B shall have a breaking strength of not less than 48 kN. Securing ropes shall be tagged or otherwise permanently marked in the same way as provided in paragraph 11.3 and those used to aid in rigging the pilot ladder, shall be at least 3 m in length. The securing arrangements shall be positioned not less than 915 mm, or, if not possible, the maximum distance permitted by the width of the deck, from the edge of the deck, except for the case of a combination arrangement using an accommodation ladder. Strong points and shackles shall have breaking strength or equivalent safe working load limits clearly and permanently marked. Documentation of the conformance of the strong points, shackles and securing ropes shall be maintained on board and available for inspection purposes.

6.2 Permanent or removable means of bowsing a pilot ladder or embarkation platform to the ship's hull shall not be used to support the weight of the boarding arrangement or pilot and shall not be used for any other purpose than to secure the arrangement against the ship's side. Removable means of bowsing a pilot ladder or embarkation platform to the ship's side shall be able to be applied and removed by a single person and shall have a holding force of not less than 4 kN when used for the purpose of securing the lower platform of an accommodation ladder or 3 kN when used for securing the pilot ladder or manropes.[6]

[6] Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-3:2022 *Ships and marine technology – Pilot ladders, part 3: Attachment and associated equipment*.

6.3 There shall be a means of securing a pilot ladder at intermediate lengths which shall be capable of securing the pilot ladder to strong points described in paragraph 6.1 by gripping each set of side ropes of the pilot ladder. The means of securing, shall have a breaking strength of not less than 48 kN and be designed to prevent any slippage of the side ropes under the conditions of the ladder and step attachment strength test and unrolling tests described in a standard acceptable to the Organization.[7] When type approving means of securing a pilot ladder at intermediate lengths in accordance with Part F, these tests shall be modified to reflect the attachment of the pilot ladder using a means of securing the pilot ladder other than using its own attachments.

7 Ships' side openings, doors and platforms

7.1 Ships' side doors used for the transfer of pilots or other personnel shall not open outwards unless located below the freeboard deck.[8] The side opening shall enable a safe, convenient and unobstructed passage large enough for the transfer of pilots and other personnel, with a minimum clearance of 2,200 mm in height and 915 mm in width.

7.2 Ships' side openings without a boarding platform shall be provided with strong points which are on the lowest deck of the opening and inboard of the ship's side opening. Strong points shall also be provided on the deck head and inboard of the ship's side opening if it is intended to rig manropes in the manner provided for in paragraph 15.1.1.3.

7.3 In any event, boarding platforms deployed from ships' side openings and outboard of the ship shall not be provided where the distance from the platform to the surface of the water in all seagoing conditions of draught and trim associated with the normal operation of the ship is less than 5 m. Platforms shall be mechanically attached to the ship and be marked with safe working load limits. Certification of successful testing shall be maintained on board and available for inspection.

7.4 The boarding platform shall extend outboard from the ship's side for a minimum distance of 750 mm, with a longitudinal length of a minimum of 750 mm. The platform shall be securely guarded by handrails.

8 Access to ship's deck

Means shall be provided to ensure safe, convenient and unobstructed passage for pilots and other personnel embarking on, or disembarking from, the ship between the head of the pilot ladder, or of any accommodation ladder, and the ship's deck; such access shall be gained directly by a clean and unobstructed platform securely guarded by handrails. Where such passage is by means of:

.1 a gateway in the rails or bulwark, adequate handholds with a diameter of not less than 32 mm and not more than 36 mm shall be provided at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each handhold shall be rigidly secured and locked to the ship's structure at or near its base and also to the ship at a higher point, and shall extend not less than 1.2 m above the deck to which it is fitted. Stanchions or handrails of the gateway shall not be attached to the bulwark ladder to prevent the bulwark ladder from overturning and shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes;

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7 Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 799-1:2019 *Ships and marine technology – Pilot ladders – part 1: Design and specification*.

8 Refer to regulation 21 of annex I of the International Convention on Load Lines.

.2 a bulwark ladder, it shall be securely attached to the ship to prevent overturning. Two separate handhold stanchions with a diameter of not less than 32 mm and not more than 36 mm shall be fitted at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each stanchion shall be rigidly secured and locked to the ship at or near its base and also at a higher point and shall extend not less than 1.2 m above the top of the bulwarks. Stanchions or handrails of the gateway shall not be attached to the bulwark ladder to prevent the bulwark from overturning and shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes; or

.3 a shipside opening or door, adequate handholds with a diameter of not less than 32 mm and not more than 36 mm shall be provided at the point of embarking on or disembarking from the ship on each side which shall be not less than 0.7 m and not more than 0.8 m apart in clear width. Each handhold shall be rigidly secured and locked to the ship's structure at or near its base and also to the ship at a higher point to prevent dislodgement and shall extend not less than 1.2 m above the entry threshold. Stanchions or handrails shall be positioned no greater than 0.12 m inboard of the edge of the deck. A ring or eye with an inner diameter not less than 60 mm at a height of the stanchion above the deck shall be provided to accommodate manropes.

9 Protection from chafing

Equipment and arrangements shall be designed and installed so that it is not possible for a pilot ladder side rope or manrope to make contact with any part of the ship's hull or associated fixtures and fittings which could have the potential to cause sharp bends, chafing, abrasion, pinching or otherwise degrade their performance. Where contact is unavoidable, contact points shall be rounded to minimize chafing. The means of rounding could be a permanent fixture, such as a rounded pipe. Where it is not possible to round contact points owing to ship design, removable chafing pads or other temporary arrangements may be used. They shall be considered acceptable to the Administration, provided these arrangements do not prevent pre-use inspections, are removed after use and stowed in accordance with section 23.

10 Safe approach of the pilot boat

Where rubbing bands or other constructional features prevent the safe approach of a pilot boat, these shall be cut back to provide at least 6 m of unobstructed ship's side. Specialized offshore ships less than 90 m or other similar ships less than 90 m for which a 6 m gap in the rubbing bands would not be practicable, as determined by the Administration, may be exempted. In this case, other appropriate measures shall be taken to ensure that pilots and other personnel are able to embark and disembark safely.

11 Associated equipment

Manropes shall be:

.1 not less than 28 mm and not more than 32 mm in diameter and shall be mildew-resistant manila rope,[9] or other material of equivalent strength, durability, elongation characteristics and grip;

.2 of a single length free from splices and knots; and

.3 tagged or otherwise permanently marked by the manufacturer with at least the following information:

.1 the name of the manufacturer;

.2 an equipment serial number or other means of unique identification which the manufacturer shall be able to validate;

.3 date of manufacture; and

.4 name and details of the approving authority.

PART B – RIGGING

12 Pilot ladder

In all ships, when it is intended to embark and disembark pilots or other personnel by means of the pilot ladder, the pilot ladder shall be secured to the dedicated strong points meeting the requirements of paragraph 6.1 and positioned so that:

.1 it is clear of any possible discharge from the ships and at all times hangs vertically, free and without obstruction;

.2 it is within the parallel body length of the ship and within the midship half-length of the ship;

.3 each step rests firmly against the ship's side and is horizontal in all planes throughout the entire vertical length of the ladder;

.4 when used in conjunction with ships' side openings, the ladder is secured in accordance with section 14;

.5 when a retrieval line is considered necessary to ensure the safe rigging of a pilot ladder, the line is secured to the forward end, at or above the lowest spreader step and leads forward. The retrieval line shall not hinder the pilot or other personnel nor obstruct the safe approach of the pilot boat; and

.6 the lowest step of the pilot ladder, by using the means specified in paragraph 6.3, is at the height above the surface of the water requested by the pilot or other personnel being transferred.

[9] Refer to the recommendations by the International Organization for Standardization, in particular publication ISO 1181:2004 Fibre ropes – Manila and sisal – 3-, 4- and 8-strand ropes.

13 Combination arrangements

13.1 The combination arrangement shall be so positioned and secured that:

.1 the pilot ladder complies with the requirements in section 12;

.2 the accommodation ladder leads aft and is clear of any discharges;

.3 the lower platform of the accommodation ladder is secured to the ship's side by means of permanent fixtures or removable fixtures within the parallel body length of the ship and within the midship half-length;

.4 the lower platform is in a horizontal position when in use and is a minimum of 5 m above the surface of the water in all seagoing conditions of draught and trim;

.5 the pilot ladder and manropes are secured to the ship's side at a point of nominally 1.5 m above the lower platform of the accommodation ladder except as outlined in paragraph 5.5.7;

.6 the pilot ladder and manropes are not secured to the lower platform of the accommodation ladder at any time; and

.7 the pilot ladder is rigged immediately adjacent to the lower platform of the accommodation ladder and the highest step of the pilot ladder is at least 2 m above the lower platform. The horizontal distance between the pilot ladder and the lower platform shall be between 0.1 and 0.2 m.

13.2 In the case of a combination arrangement using an accommodation ladder with a trapdoor in the lower platform, the lower platform shall be positioned and rigged in accordance with the requirements of paragraphs 5.5 and 13.1.

14 Ships' side openings

14.1 Pilot ladders rigged from ships' side openings without a boarding platform shall not extend above the lowest deck of the opening and shall not be rigged from any other position, including the freeboard deck.

14.2 Pilot ladders used in conjunction with ships' side openings with a boarding platform complying with paragraph 7.3 shall be rigged aft of such platforms and may be rigged from the freeboard deck provided that the ladder and manropes are secured above the platform in accordance with paragraphs 13.1.5 and 13.1.7.

15 Associated equipment

15.1 The following associated equipment shall be available and ready for immediate use at the point of access whilst the pilot or other personnel are being transferred:

.1 two manropes complying with the requirements stipulated within section 11 which shall:

.1 be free from contamination and knots; however, knots used to tie or secure manropes to strong points are acceptable;

.2 when required by pilots or other personnel embarking or disembarking, be rigged and secured in accordance with relevant requirements of these performance standards; and

.3 when rigged, be fixed at the rope end to dedicated strong points on the deck and pass through the ring or eye fitted at the top of the stanchions at the point of access to the deck. When the pilot ladder is rigged from a ship side opening, manropes may be rigged from the deck head, provided that the manropes pass through the ring or the eye at the top of the stanchions at the point of access;

.2 a lifebuoy equipped with a self-igniting light; and

.3 a heaving line free from contamination and having a length which can reach the waterline in any seagoing condition of draught or trim.

15.2 When required by section 8 of these performance standards, stanchions and bulwark ladders shall be provided.

PART C – INSTALLATION OF PILOT LADDER WINCH REELS

16 Stowage of pilot ladders on winch reels

If a pilot ladder is to be stowed on a winch drum, the drum diameter shall be not less than 0.16 m and the drum shall be provided with sunken securing points.

17 Point of access

17.1 When a pilot ladder winch reel is provided, it shall be situated at a position which will ensure pilots and other personnel embarking on, or disembarking from, the ship between the pilot ladder and the point of access to the ship, have safe, convenient and unobstructed access to or egress from the ship.

17.2 The point of access position and adjacent area shall be kept clear of obstructions, including the pilot ladder winch reel, for distances as follows:

.1 915 mm in width measured longitudinally;

.2 915 mm in depth, measured from the ship's side plating inwards; and

.3 2,200 mm in height, measured vertically from the access deck.

18 Physical positioning of pilot ladder winch reels

18.1 Pilot ladder winch reels which are fitted on a ship's upper deck for the purpose of providing a pilot ladder which services a ship's side opening below the upper deck or, alternatively, an accommodation ladder when a combination arrangement is provided shall:

.1 be situated at a location on the upper deck from which the pilot ladder is able to be suspended vertically, in a straight line, to a point adjacent to the ship's side opening access point or the lower platform of the accommodation ladder;

.2 be situated at a location which provides a safe, convenient and unobstructed passage for pilots or other personnel embarking on, or disembarking from, the ship between the pilot ladder and the place of access on the ship; and

.3 enable compliance with the relevant requirements of part A and part B.

18.2 Pilot ladder winch reels fitted inside a ship's side opening shall:

.1 be situated at a position which provides a safe, convenient and unobstructed passage for pilots or other personnel embarking on, or disembarking from, the ship between the pilot ladder and the place of access on the ship;

.2 be situated at a position which provides an unobstructed clear area with a minimum length of 915 mm and minimum width of 915 mm and minimum vertical height of 2,200 mm; and

.3 if situated at a position which necessitates a section of the pilot ladder to be partially secured in a horizontal position on the deck so as to provide a clear access as described above, then allowance shall be made so that this section of the pilot ladder may be covered with a rigid platform for a minimum distance of 915 mm measured horizontally from the ship's side inwards.

19 Handrails and handgrips

Handrails and handgrips shall be provided in accordance with section 8 to assist the pilot and other personnel to safely transfer between the pilot ladder and the ship, except as noted in paragraph 7.4 for arrangements with platforms extending outboard. The horizontal distance between the handrails and/or the handgrips shall be not less than 0.7 m or more than 0.8 m apart.

20 Securing of the pilot ladder

Where the pilot ladder is stowed on a pilot ladder winch reel which is located either within the ship's side opening or on the upper deck:

.1 the pilot ladder winch reel shall not be relied upon to support the pilot ladder when the pilot ladder is in use;

.2 the pilot ladder shall be secured to strong points, independent of the pilot ladder winch reel; and

.3 the pilot ladder shall be secured at deck level inside the ship's side opening or, when located on the ship's upper deck, at a distance of not less than 915 mm measured horizontally from the ship's side inwards.

21 Mechanical securing of pilot ladder winch reel

21.1 All pilot ladder winch reels shall have means of preventing the winch reel from being accidentally operated as a result of mechanical failure or human error.

21.2 Pilot ladder winch reels may be manually operated or, alternatively, powered by either electrical, hydraulic or pneumatic means.

21.3 Manually operated pilot ladder winch reels shall be provided with a brake or other suitable arrangements to control the lowering of the pilot ladder and to lock the winch reel in position once the pilot ladder is lowered into position.

21.4 Electrical, hydraulic or pneumatically driven pilot ladder winch reels shall be fitted with safety devices which are capable of cutting off the power supply to the winch reel and thus locking the winch reel in position.

21.5 Powered winch reels shall have clearly marked control levers or handles which may be locked in a neutral position.

21.6 A mechanical device or locking pin shall also be utilized to lock powered winch reels.

PART D – OPERATIONAL READINESS, ONBOARD INSPECTION AND MAINTENANCE

22 Periodic maintenance and inspections shall be carried out to ensure the pilot transfer arrangements are in good condition, free from contamination and ready for use. Regardless of the date of installation, maintenance and inspection of accommodation ladders used in the combination arrangement shall be carried out in accordance with SOLAS regulation II-1/3-9.3.

23 Pilot ladders, manropes and all associated equipment, when not in use, shall be stowed to prevent degradation caused by moisture, icing and sunlight, chemicals and greases and similar contaminants, and in accordance with the manufacturer's instructions.

24 Instructions for care, maintenance, inspection and stowage shall be supplied with each pilot ladder, manropes and all associated equipment. These instructions shall include:

.1 pre- and post-use inspection instructions;

.2 detailed periodic inspection procedures, including those for side ropes;

.3 instructions for inspecting and repairing rope seizings or securing devices, along with a list of permitted onboard repairs;

.4 care and stowage instructions, including warnings about chemical exposure, sunlight impact and other potential causes of ladder degradation;

.5 factors affecting pilot ladder life, including stowage arrangements;

.6 acceptable method(s) of securing ladder to strong points;

.7 pictorial examples and detailed written description of damage or conditions warranting withdrawing the ladder from service; and

.8 care and maintenance specifics for natural fibre rope ladders.

25 Pilot transfer arrangements shall be subject to:

.1 inspection before and after each use by a responsible officer on board; and

.2 a detailed inspection every three months by a responsible officer on board.

26 In order to determine the suitability for ongoing use of the pilot transfer arrangements, inspections shall include the following:

.1 the pilot ladder including spares;

.2 the accommodation ladder used in a combination arrangement;

.3 winch reels;

.4 securing arrangements;

.5 conditions of point of access;

.6 relevant equipment, in particular stanchions and stanchion sockets welded onto the deck; and

.7 stowage arrangements.

27 A maintenance plan shall be developed and shall be available for inspection. The maintenance plan shall be easily understood, illustrated as appropriate wherever possible, and shall include the following:

.1 a checklist for use when carrying out the inspections required by section 25;

.2 maintenance, repair and stowage instructions, in accordance with manufacturer's instructions;

.3 schedule of periodic inspection and maintenance;

.4 list of sources of spare parts or replacements;

.5 log for records of inspections and maintenance; and

.6 record of when the pilot ladder or manropes were brought into service and their anticipated date of withdrawal from service in accordance with section 30 of these performance standards.

28 Repair or replacement of pilot ladder steps or spreader steps shall be prohibited.

29 At least one spare compliant pilot ladder and one spare set of compliant manropes shall be carried on board the ship.

30 Pilot ladders and manropes, including their spares, shall be removed from service, either at any time not complying with these performance standards, or within 36 months after the date of manufacture or within 30 months after the date of being placed into service, whichever comes first, and shall not be used for the embarkation and disembarkation of pilots or other personnel.

PART E – FAMILIARIZATION

31 Onboard personnel involved in the inspection, maintenance, rigging or operation of any equipment for pilot transfer arrangements shall receive familiarization to perform their assigned duties. This shall form part of the onboard familiarization of the crew.

32 On ships to which SOLAS chapter IX applies, the company, as defined in SOLAS regulation IX/1.2, ensures that onboard personnel involved in the operation of inspection, maintenance, rigging or operation of any equipment for pilot transfer arrangements are familiarized with the onboard pilot transfer arrangements for safe operation in accordance with STCW regulation I/14.

33 On ships to which SOLAS chapter IX does not apply, familiarization on board shall include, but not be limited to:

.1 operation and use of the equipment and arrangements for the transfer of pilots and other personnel provided on board the ship;

.2 the characteristics of pilot transfer arrangements which shall not be used for the transfer of pilots or other personnel;

.3 carrying out inspections and maintenance of the pilot transfer arrangements, including spare ladders on board;

.4 replacement procedures of pilot ladders and manropes; and

.5 when applicable, measures and additional equipment or operational considerations to be made to ensure the integrity of the pilot ladder in special conditions, i.e. freezing or windy condition or rough weather especially when there is moderate swell.

PART F – APPROVAL

34 Pilot transfer arrangements installed in accordance with SOLAS regulation V/23.3 shall be approved by the Administration in accordance with these performance standards before being put into service for the first time and after repair, alteration or modification to the arrangements provided for in sections 5 to 8 and section 10 of part A, or part C, of these performance standards.

35 Pilot transfer arrangements installed in accordance with SOLAS regulations V/23.4 and 23.5 shall be approved by the Administration in accordance with these performance standards after alteration or modification, if any, or repair, to the arrangements provided for in sections 5 to 8 and section 10 of part A, or part C, of these performance standards.

36 A pilot ladder, including the means of securing the pilot ladder at intermediate lengths, and manropes shall be type-approved by the Administration in accordance with these performance standards.

37 A manufacturer quality control system shall be required and shall be audited by a competent authority to ensure continuous compliance with the type approval conditions. Alternatively, the Administration may use final product verification procedures where compliance with the type approval certificate is verified by a competent authority before the product is installed on board ships.

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ANNEX 11*

DRAFT AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)

PART IV

ADDITIONAL REGULATIONS FOR SHIPS CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER I

Regulation 2 – *Subdivision and stability*

Paragraph 2.1 is amended to read as follows:

"2.1 In order to meet the functional requirement set out in paragraph II/3.2, the following applies:

.1 Where the ship is certified to carry more than 240 persons on board, it shall meet the requirements of SOLAS regulation II-1/5 as though the ship is a passenger ship and the industrial personnel are counted as passengers. However, SOLAS regulation II-1/5.5 is not applicable.

.2 Subdivision and damage stability shall be in accordance with SOLAS chapter II-1, where the ship is considered a passenger ship and industrial personnel are counted as passengers, with the value *R* as follows:

.1 where the ship is certified to carry more than 240 persons, the value *R* is assigned as *R*;

.2 where the ship is certified to carry not more than 60 persons, the value *R* is assigned as 0.8*R; or*

.3 for more than 60 persons, but not more than 240 persons, the value *R* shall be determined by linear interpolation between the values given in sub-paragraphs .1 and .2 above.

$$R = 1 - \frac{5{,}000}{L_s + 2.5N + 15{,}225}$$

Where:

$N = N_1 + 2N_2$

N_1 = number of persons for whom lifeboats are provided

N_2 = number of persons (including officers and crew) the ship is permitted to carry in excess of N_1

* Modifications in grey shading.

.3 Where the conditions of service are such that compliance with paragraph 2.1.2 above on the basis of $N=N_1+2N_2$ is impracticable and where the Administration considers that a suitably reduced degree of hazard exists, a lesser value of N may be taken but in no case less than $N=N_1+N_2$.

.4 For ships to which paragraph 2.1.2.1 above applies, the requirements of SOLAS regulations II-1/8 and 8-1 and of SOLAS chapter II-1 parts B-2, B-3 and B-4 shall be applied as though the ship is a passenger ship and the industrial personnel are passengers. However, SOLAS regulations II-1/14 and 18 are not applicable.

.5 For ships to which paragraphs 2.1.2.2 and 2.1.2.3 above apply, except as provided in paragraph 2.1.6 below, the provisions of SOLAS chapter II-1, parts B-2, B-3 and B-4 shall apply as though the ship is a cargo ship and the industrial personnel are crew. However, the requirements of SOLAS regulations II-1/8 and 8-1 need not be applied and SOLAS regulations II-1/14 and 18 are not applicable.

.6 All ships certified in accordance with this Code shall comply with SOLAS regulations II-1/9, 13, 19, 20 and 21 as though the ship is a passenger ship.

.7 The mass of each industrial personnel shall be assumed to be 90 kg instead of 75 kg in the ship stability calculation, for ships:

.1 for which the building contract is placed on or after [*date of entry into force*]; or

.2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after [*date of entry into force + 6 months*]; or

.3 the delivery of which is on or after *[date of entry into force + 4 years*]."

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ANNEX 12*

DRAFT AMENDMENTS TO THE INTERNATIONAL CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS, 2011 (2011 ESP CODE)

Contents

1 Under "Annex A", "Part A", the following new item is added after existing "Annex 5", which is renumbered as "Annex 5A":

"Annex 5B Procedures for certification of a firm engaged in close-up survey of hull structures using a Remote Inspection Technique (RIT)"

2 Under "Annex A", "Part B", the following new item is added after existing "Annex 5", which is renumbered as "Annex 5A":

"Annex 5B Procedures for certification of a firm engaged in close-up survey of hull structures using a Remote Inspection Technique (RIT)"

3 Under "Annex B", "Part A", the following new item is added after existing "Annex 8", which is renumbered as "Annex 8A":

"Annex 8B Procedures for certification of a firm engaged in close-up survey of hull structures using a Remote Inspection Technique (RIT)"

4 Under "Annex B", "Part B", the following new item is added after existing "Annex 7", which is renumbered as "Annex 7A":

"Annex 7B Procedures for certification of a firm engaged in close-up survey of hull structures using a Remote Inspection Technique (RIT)"

ANNEX A

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING THE SURVEYS OF BULK CARRIERS

Part A

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS HAVING SINGLE-SIDE SKIN CONSTRUCTION

1 General

1.2 *Definitions*

5 Paragraph 1.2.21 is replaced by the following:
"1.2.21 *Administration* means the Administration or organization recognized by the Administration, unless defined otherwise in this Code."

* Modifications in grey shading.

6 The following new paragraph 1.2.22 is added after paragraph 1.2.21, together with the associated footnote:

"1.2.22 *Remote Inspection Technique (RIT)* is a means of survey of any parts of the structure without the need for direct physical access of the surveyor. *

* Refer to the guidelines to be developed by the Organization.

1.5 *Thickness measurements and close-up surveys*

7 Section 1.5 is replaced by the following:

"**1.5 *Thickness measurements and close-up surveys***

1.5.1 In any kind of survey, i.e. renewal, intermediate, annual or other surveys having the scope of the foregoing ones, for structures in areas where close-up surveys are required, thickness measurements, when required by annex 2, shall be carried out simultaneously with close-up surveys.

1.5.2 For periodic surveys after the third renewal survey, the use of RIT is subject to the agreement of the Administration, who may impose additional requirements or limitations; in this case the Administration means the Government of the State whose flag the ship is entitled to fly and not the recognized organization."

8 The following new section 1.6 is added after section 1.5, together with the associated footnote:

"**1.6 *Remote inspection techniques (RIT)***

1.6.1 RIT surveys shall be carried out in accordance with the requirements given herein and the guidelines on the use of RIT. *

1.6.2 When using a RIT for close-up survey, if not carried out by the Administration itself, it shall be conducted by a firm approved as a service supplier by the Administration according to the principles stated in annex 5B of part A of annex A and shall be carried out under the presence of the surveyor and their continuous direction and control of the RIT process.

1.6.3 If the RIT reveals damage or deterioration that the surveyor judges requires attention or further investigation, the surveyor shall require a traditional survey to be undertaken without the use of a RIT.

1.6.4 Random confirmatory surveys/close-up surveys shall be carried out at locations selected by the surveyor for the purpose to verify the results of the RIT.

* Refer to the guidelines to be developed by the Organization.

2 Renewal survey

2.5 *Extent of overall and close-up surveys*

9 The following new paragraph 2.5.5 is added after paragraph 2.5.4:

"2.5.5 When using a RIT to assist the close-up survey the following applies:

.1 for areas where means of access are required to enable the surveyor to examine the structure, the surveyor may use RIT to assist the close-up survey when access is not provided by the permanent means of access;

.2 the RIT to assist the close-up survey shall not be used after the third renewal survey, unless agreed with the Administration (see 1.5.2);

.3 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.4 the RIT shall not be used to assist the surveyor during the close-up survey in areas which have a recorded significant history of structural failures (corrosion, cracks and buckling). See Guidelines in annex 9, paragraph 3.1.1; and

.5 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated are to be included in the survey programme."

5 Preparations for survey

5.1 *Survey programme*

10 The following paragraph 5.1.6 is added after paragraph 5.1.5:

"5.1.6 If it is proposed to use a RIT, the proposal shall be submitted before the survey as part of the survey programme detailed above, discussed and approved by the Administration. The following shall be taken into account when preparing the survey programme:

.1 the RIT limitations, if any, shall be detailed in the survey programme;

.2 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT shall be detailed in the survey programme;

.3 the RIT to assist the close-up survey shall not be used after renewal survey No.3, unless agreed with the Administration (see 1.5.2);

.4 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.5 the RIT shall not be used to assist the surveyor during the close-up in areas which have a recorded significant history of structural failures defects, damage or deterioration (corrosion, cracks and buckling). See guidelines in annex 9, paragraph 3.1.1; and

.6 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated are to be included in the survey programme."

5.2 ***Conditions for survey***

11 Paragraph 5.2.6 is replaced by the following:

"5.2.6 In preparation for survey (including for surveys making use of RIT) and thickness measurements and to allow for a thorough examination, all spaces shall be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces shall be sufficiently clean and free from water, scale, dirt, oil residues, etc., to reveal corrosion, deformation, fractures, damages or other structural deterioration as well as the condition of the coating. However, those areas of structure whose renewal has already been decided by the owner need only be cleaned and descaled to the extent necessary to determine the limits of the areas to be renewed."

5.4 ***Equipment for survey***

12 The following new paragraph is added after paragraph 5.4.5, together with the associated footnote:

"5.4.6 The surveyor shall be satisfied with the method of data presentation including pictorial representation, and a good two-way communication between the surveyor and RIT operator shall be provided. Prior to every survey on board, the RIT shall be validated in accordance with the guidelines on the use of RIT,* taking into account the existing conditions (light, humidity, dust, etc.) to confirm that the expected results can be achieved.

* Refer to the guidelines to be developed by the Organization."

5.7 ***Survey planning meeting***

13 Paragraph 5.7.2 is replaced by the following:

"5.7.2 Prior to commencement of any part of the renewal or intermediate survey, a survey planning meeting shall be held between the attending surveyor(s), the owner's representative in attendance, the thickness measurement firm representative, the RIT firm representative, where involved, and the master of the ship or an appropriately qualified representative appointed by the master or company; for the purpose to ascertain that all the arrangements envisaged in the survey programme are in place, so as to ensure the safe and efficient conduct of the survey work to be carried out (see also 7.1.2))."

14 Paragraph 5.7.3 is replaced by the following:

"5.7.3 The following is an indicative list of items that shall be addressed in the meeting:

.1 schedule of the ship (i.e. voyage, docking and undocking manoeuvres, periods alongside, cargo and ballast operations, etc.);

.2 provisions and arrangements for thickness measurements (i.e. access, cleaning/descaling, illumination, ventilation, personal safety);

.3 extent of the thickness measurements;

.4 acceptance criteria (refer to the list of minimum thicknesses);

.5 extent of close-up survey and thickness measurement considering the coating condition and suspect areas/areas of substantial corrosion;

.6 execution of thickness measurements;

.7 taking representative readings in general and where uneven corrosion/pitting is found;

.8 mapping of areas of substantial corrosion; ~~and~~

.9 communication between attending surveyor(s), the thickness measurement firm operator(s) and owner representative(s) concerning findings~~.~~;

.10 the RIT limitations, if any;

.11 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT; and

.12 confirmatory surveys for RIT."

7 Procedures for thickness measurements

15 Section 7.2 is replaced as follows:

"**7.2** ***Certification of thickness measurement firm***

The thickness measurements shall be carried out by a qualified firm certified by the Administration according to the principles stated in annex 5A."

ANNEX 4B

SURVEY PLANNING QUESTIONNAIRE

2 Information on access provision for close-up surveys and thickness measurement

16 Section 2 is replaced as follows:

"**2 Information on access provision for close-up surveys and thickness measurement**

The owner shall indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. normally within reach of hand.

When any part of the close-up survey is being undertaken by means of a RIT, the means of how thickness measurements are going to be taken shall also be indicated in the table below; the thickness measurements shall be carried out simultaneously with the close-up survey, either when required by the ESP Code or by the surveyor as a result of the close-up survey. Note: A RIT to assist the close-up survey may only be used when access is not provided by the permanent means of access. (See 1.5 and 5.1.6)

Hold/Tank No.	Structure	Permanent means of access	Temporary staging	Rafts	Ladders	RIT	Direct access	Other means (please specify)
F.P.	Fore peak							
…								

History of bulk cargoes of a corrosive nature (e.g. high sulphur content)

"

ANNEX 5

PROCEDURES FOR APPROVAL AND CERTIFICATION OF A FIRM ENGAGED IN THICKNESS MEASUREMENT OF HULL STRUCTURES

17 After existing annex 5, which is renumbered as "Annex 5A", the following annex 5B is inserted together with the associated footnote:

"ANNEX 5B

PROCEDURES FOR CERTIFICATION OF A FIRM ENGAGED IN CLOSE-UP SURVEY OF HULL STRUCTURES USING A REMOTE INSPECTION TECHNIQUE (RIT)

1 Application

1.1 This procedure applies to RIT firms providing visual livestreaming of video and images to support close-up surveys.

2 General requirements

Supervisor and operators

2.1 The firm shall designate a supervisor who shall be certified according to the recognized national requirements or an equivalent industrial standard and shall have a minimum of two years' experience in the inspection of ship's structure.

2.2 Operators of the RIT shall be certified according to the recognized national requirements or an equivalent industrial standard and have had at least one year's experience as an assistant carrying out inspections of ship's structure (including participation in a minimum of five different assignments). The operators of those RIT which require, according to the international and national legislations, to be licensed for their use shall hold valid documentation issued by the appropriate Bodies (e.g. Unmanned Aerial Vehicles (UAV) Pilots shall be qualified and licensed in accordance with applicable national requirements).

Training and qualification of operators

2.3 The firm is responsible for the training and qualification of its operators. UAV Pilots shall be qualified and licensed in accordance with applicable national requirements or an equivalent industrial standard acceptable to the Administration.

2.4 The firm shall maintain a documented training plan for RIT equipment operators. The plan shall include requirements for training in the renewals survey requirements for the structure as specified in this Code, the recognition of structural deterioration (including corrosion, buckling, cracking and deteriorated coatings) and the reporting requirements of this Code.

2.5 Knowledge of the following shall be documented:

.1 guidelines on the use of RIT; *

.2 marine and/or offshore nomenclatures;

.3 the structural configuration of relevant ships types, including internal structure;

.4 the remote inspection equipment and its operation; and

.5 survey plans for examination of hull spaces of various configurations, including appropriate flight plans if using a UAV.

* Refer to the guidelines to be developed by the Organization.

RIT equipment

2.6 As a minimum, the following equipment shall be available:

.1 remotely operated platform with data capture devices capable of operation within an enclosed space;

.2 means of powering the platforms with sufficient capacity to complete the required inspections, including spare batteries if applicable;

.3 data-collection devices which may include cameras capable of capturing in high definition both video images and still images;

.4 illumination equipment;

.5 high-definition display screen with live high-definition feed from inspection cameras;

.6 means of communication, as applicable; and

.7 data recording devices;

2.7 The RIT equipment shall be approved in accordance with the guidelines on the use of RIT.*

* Refer to the guidelines to be developed by the Organization.

Firm procedures and guidelines on the use of RIT

2.8 The firm shall have documented operational procedures and guidelines on the use of RIT for how to plan, carry out and report inspections; how to handle/operate the equipment; collection and storage of data. These shall be in accordance with the guidelines on the use of RIT.* These shall include:

.1 requirements for preparation of inspection plans;

.2 operation of the remotely operated platforms;

.3 operation of lighting;

.4 calibration of the data capture devices;

.5 operation of the data capture devices;

.6 two-way communication between the operator, platform, surveyor, other personnel, such as support staff and ships officers and crew;

.7 guidance of the operator to provide complete coverage of the structure to be inspected;

.8 guidance for the maintenance of the remotely operated platforms, data capture and storage devices and display screens, as applicable;

.9 requirements for the collection and validation of data;

.10 if data is to be stored, then requirements for location attribution, and, time and date attribution, as available, validation and storage of data;

.11 requirements for the reporting of inspections, including the recording of damages and defects found during inspection and repair work; and

.12 if capable of undertaking cleaning/surface preparation, then procedures for undertaking this work.

* Refer to the guidelines to be developed by the Organization

Documents and records

2.9 The firm shall maintain the following:

.1 records of training;

.2 operator statutory and regulatory certificates and licences;

.3 equipment register for RIT equipment, including delivery device (e.g. UAVs, robots), data capture devices, data analysis devices and any associated equipment necessary to perform inspections;

.4 equipment maintenance manuals and records / logbook;

.5 records of calibration; and

.6 RIT equipment operation logbook;

3 Procedures for certification

Submission of documents

3.1 The following documents shall be submitted to the Administration for approval, together with a list of the documents submitted:

.1 outline of the firm, e.g. organization and management structure;

.2 experience of the firm on RIT of hull structures of ships;

.3 technicians' careers, i.e. experience of technicians as RIT operators, technical knowledge and experience of hull structure, etc.;

.4 equipment used, including capturing devices (i.e. drones, cameras, etc.), streaming devices (i.e. screens) and other supporting equipment (i.e. illumination), and their maintenance/calibration procedures;

.5 operational procedures and instructions on how to carry out the servicing of the equipment and/or system. These are to either contain or make reference to the manufacturer's servicing manuals, servicing bulletins, instructions and training manuals, as appropriate, and to relevant international requirements;

.6 training programmes for RIT Operators; and

.7 report format in accordance with recommendations of guidelines on the use of RIT.*

* Refer to the guidelines to be developed by the Organization.

*Auditing of the firm**

3.2 Upon reviewing the documents submitted with satisfactory results, the firm shall be audited in order to ascertain that the firm is duly organized and managed in accordance with the documents submitted, and eventually is capable of conducting close-up surveys of the hull structure of ships using RIT.

3.3 Certification is conditional upon a demonstration (on board or in a test environment) of a close-up survey using the RIT, as well as satisfactory reporting.

* Refer to the guidelines to be developed by the Organization.

4 Certification

4.1 Upon satisfactory results of both the audit of the firm referred to in 3.2 and the demonstration tests referred to in 3.3, the Administration shall issue a certificate of approval stating that the firm's operation system has been found to be satisfactory, and the results of services performed in accordance with that system may be accepted and utilized by the Administration in making decisions affecting certification. The certificate shall clearly state the type and scope of services, type of equipment and/or names of manufacturers of equipment where this is a limiting restraint and any limitations or restrictions imposed, and include a statement that the RIT shall support the close-up survey for the areas which may not be not fully accessed by use of the permanent means of access.

4.2 Renewal/endorsement of the certificate shall be made at intervals not exceeding three years by verification that original conditions are maintained.

5 Report of any alteration to the certified operation system of the RIT firm

In cases where any alteration to the certified RIT firm is made, such an alteration shall be immediately reported to the Administration. Re-audit shall be made where deemed necessary by the Administration.

6 Withdrawal of the certification

The certification may be withdrawn in the following cases:

.1 where the RIT were improperly carried out or the results were improperly reported;

.2 where the Administration found any deficiencies in the operation systems of the RIT firm; and

.3 where the firm failed to report any alteration referred to in 5 to the Administration as required.

ANNEX 6

SURVEY REPORTING PRINCIPLES

1 General

18 The following paragraphs 1.4 and 1.5 are added after paragraph 1.3:

"1.4 When RIT have been used then:

.1 the RIT report shall include all videos and images with a chapter detailing the areas covered and damages found with locations, type, details and dimensions;

.2 the report shall include the details of RIT firm, approval certificate, equipment used and operators.

1.5 The report shall have evidence of being reviewed and approved by the attending surveyor(s)."

3 Result of the survey

19 Sub-paragraph 3.2.2 is replaced by the following:

".2 identification of compartments where no structural damages/defects are found. The report may be supplemented by sketches/photographs/videos; and"

Part B

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS HAVING DOUBLE-SIDE SKIN CONSTRUCTION

1 General

1.2 *Definitions*

20 Paragraph 1.2.21 is replaced by the following:

"1.2.21 *Administration* means the Administration or organization recognized by the Administration, unless defined otherwise in this Code."

21 The following new paragraph 1.2.22 is added after paragraph 1.2.21, together with the associated footnote:

"1.2.22 *Remote Inspection Technique (RIT)* is a means of survey of any parts of the structure without the need for direct physical access of the surveyor.*

* Refer to the guidelines to be developed by the Organization.

1.5 *Thickness measurements and close-up surveys*

22 Section 1.5 is replaced by the following:

"**1.5 *Thickness measurements and close-up surveys***

1.5.1 In any kind of survey, i.e. renewal, intermediate, annual or other surveys having the scope of the foregoing ones, for structures in areas where close-up surveys are required, thickness measurements, when required by annex 2, shall be carried out simultaneously with close-up surveys.

1.5.2 For periodic surveys after the third renewal survey, the use of RIT is subject to the agreement of the Administration, which may impose additional requirements or limitations; in this case the Administration means the Government of the State whose flag the ship is entitled to fly and not the recognized organization."

23 The following new section 1.6 is added after section 1.5, together with the associated footnote:

"**1.6 *Remote inspection techniques (RIT)***

1.6.1 RIT surveys shall be carried out in accordance with the requirements given herein and the guidelines on the use of RIT.*

1.6.2 When using a RIT for close-up survey, if not carried out by the Administration itself, it shall be conducted by a firm approved as a service supplier by the Administration according to the principles stated in annex 5B of part B of annex A and shall be carried out under the presence of the surveyor and their continuous direction and control of the RIT process.

1.6.3 If the RIT reveals damage or deterioration that the surveyor judges requires attention or further investigation, the surveyor shall require a traditional survey to be undertaken without the use of a RIT.

1.6.4 Random confirmatory surveys/close-up surveys shall be carried out at locations selected by the surveyor for the purpose to verify the results of the RIT.

* Refer to the guidelines to be developed by the Organization.

2 Renewal survey

2.5 *Extent of overall and close-up surveys*

24 The following new paragraph 2.5.5 is added after paragraph 2.5.4:

"2.5.5 When using a RIT to assist the close-up survey the following applies:

.1 for areas where means of access are required to enable the surveyor to examine the structure, the surveyor may use RIT to assist the close-up survey when access is not provided by the permanent means of access;

.2 the RIT to assist the close-up survey shall not be used after the third renewal survey, unless agreed with the Administration (see 1.5.2);

.3 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.4 the RIT shall not be used to assist the surveyor during the close-up survey in areas which have a recorded significant history of structural failures (corrosion, cracks and buckling). See guidelines in annex 9, paragraph 3.1.1; and

.5 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated shall be included in the survey programme."

5 Preparations for survey

5.1. *Survey programme*

25 The following paragraph 5.1.6 is added after paragraph 5.1.5:

"5.1.6 If it is proposed to use a RIT, the proposal shall be submitted before the survey as part of the survey programme detailed above, discussed and approved by the Administration. The following shall be taken into account when preparing the survey programme:

.1 the RIT limitations, if any, shall be detailed in the survey programme;

.2 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT shall be detailed in the survey programme;

.3 the RIT to assist the close-up survey shall not be used after renewal survey No.3, unless agreed with the Administration (see 1.5.2);

.4 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.5 the RIT shall not be used to assist the surveyor during the close-up in areas which have a recorded significant history of structural failures defects, damage or deterioration (corrosion, cracks and buckling). See guidelines in annex 9, paragraph 3.1.1; and

.6 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated shall be included in the survey programme."

5.2 ***Conditions for survey***

26 Paragraph 5.2.6 is replaced by the following:

"5.2.6 In preparation for survey (including for surveys making use of RIT) and thickness measurements and to allow for a thorough examination, all spaces shall be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces shall be sufficiently clean and free from water, scale, dirt, oil residues, etc., to reveal corrosion, deformation, fractures, damages or other structural deterioration as well as the condition of the coating. However, those areas of structure whose renewal has already been decided by the owner need only be cleaned and descaled to the extent necessary to determine the limits of the areas to be renewed."

5.4 ***Equipment for survey***

27 The following new paragraph is added after paragraph 5.4.5, together with the associated footnote:

"5.4.6 The surveyor shall be satisfied with the method of data presentation including pictorial representation, and a good two-way communication between the surveyor and RIT operator shall be provided. Prior to every survey on board, the RIT shall be validated in accordance with the guidelines on the use of RIT,* taking into account the existing conditions (light, humidity, dust, etc.) to confirm that the expected results can be achieved.

* Refer to the guidelines to be developed by the Organization."

5.7 Survey planning meeting

28 Paragraph 5.7.2 is replaced by the following:

"5.7.2 Prior to commencement of any part of the renewal or intermediate survey, a survey planning meeting shall be held between the attending surveyor(s), the owner's representative in attendance, the thickness measurement firm representative, the RIT firm representative, where involved, and the master of the ship or an appropriately qualified representative appointed by the master or company; for the purpose to ascertain that all the arrangements envisaged in the survey programme are in place, so as to ensure the safe and efficient conduct of the survey work to be carried out (see also 7.1.2)."

29 Paragraph 5.7.3 is replaced by the following:

"5.7.3 The following is an indicative list of items that shall be addressed in the meeting:

.1 schedule of the ship (i.e. the voyage, docking and undocking manoeuvres, periods alongside, cargo and ballast operations, etc.);

.2 provisions and arrangements for thickness measurements (i.e. access, cleaning/descaling, illumination, ventilation, personal safety);

.3 extent of the thickness measurements;

.4 acceptance criteria (refer to the list of minimum thicknesses);

.5 extent of close-up survey and thickness measurement considering the coating condition and suspect areas/areas of substantial corrosion;

.6 execution of thickness measurements;

.7 taking representative readings in general and where uneven corrosion/pitting is found;

.8 mapping of areas of substantial corrosion; ~~and~~

.9 communication between attending surveyor(s), the thickness measurement firm operator(s) and owner representative(s) concerning findings~~.~~;

.10 the RIT limitations, if any;

.11 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT; and

.12 confirmatory surveys for RIT."

7 Procedures for thickness measurements

30 Section 7.2 is replaced as follows:

"**7.2** ***Certification of thickness measurement firm***
The thickness measurements shall be carried out by a qualified firm certified by the Administration according to the principles stated in annex 5A."

ANNEX 4B

SURVEY PLANNING QUESTIONNAIRE

2 Information on access provision for close-up surveys and thickness measurement

31 Section 2 is replaced as follows:

"**2 Information on access provision for close-up surveys and thickness measurement**

The owner shall indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. normally within reach of hand.

When any part of the close-up survey is being undertaken by means of a RIT, the means of how thickness measurements are going to be taken shall also be indicated in the table below; the thickness measurements shall be carried out simultaneously with the close-up survey, either when required by the ESP Code or by the surveyor as a result of the close-up survey. Note: A RIT to assist the close-up survey may only be used when access is not provided by the permanent means of access. (See 1.5 and 5.1.6).

Hold/Tank No.	Structure	Permanent means of access	Temporary staging	Rafts	Ladders	RIT	Direct access	Other Means (please specify)
F.P.	Fore peak							
…								

History of bulk cargoes of a corrosive nature (e.g. high sulphur content)

"

ANNEX 5

PROCEDURES FOR APPROVAL AND CERTIFICATION OF A FIRM ENGAGED IN THICKNESS MEASUREMENT OF HULL STRUCTURES

32 After the existing Annex 5, which is renumbered as "Annex 5A", the following annex 5B is inserted:

[At the approved stage the text to appear here would be identical to the text of annex 5B of Part A of Annex A. The full text will be inserted for circulation prior to adoption.]

ANNEX 6

SURVEY REPORTING PRINCIPLES

1 General

33 The following paragraphs 1.4 and 1.5 are added after paragraph 1.3:

"1.4 When RIT have been used then:

.1 the RIT report shall include all videos and images with a chapter detailing the areas covered and damages found with locations, type, details and dimensions;

.2 the report shall include the details of: RIT firm, approval certificate, equipment used and operators.

1.5 The report shall have evidence of being reviewed and approved by the attending surveyor(s)."

3 Result of the survey

34 Sub-paragraph 3.2.2 is replaced by the following:

".2 identification of compartments where no structural damages/defects are found. The report may be supplemented by sketches/photographs/videos; and"

ANNEX B

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL TANKERS

Part A

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF DOUBLE-HULL OIL TANKERS

1 General

1.2 *Definitions*

35 Paragraph 1.2.20 is replaced by the following:

"1.2.20 *Administration* means the Administration or organization recognized by the Administration, unless defined otherwise in this Code."

36 The following new paragraph 1.2.21 is added after paragraph 1.2.20, together with the associated footnote:

"1.2.21 *Remote Inspection Technique (RIT)* is a means of survey of any parts of the structure without the need for direct physical access of the surveyor.*

* Refer to the guidelines to be developed by the Organization.

1.5 *Thickness measurements and close-up surveys*

37 Section 1.5 is replaced by the following:

"**1.5 *Thickness measurements and close-up surveys***

1.5.1 In any kind of survey, i.e. renewal, intermediate, annual or other surveys having the scope of the foregoing ones, for structures in areas where close-up surveys are required, thickness measurements, when required by annex 2, shall be carried out simultaneously with close-up surveys.

1.5.2 For periodic surveys after the third renewal survey, the use of RIT is subject to the agreement of the Administration, which may impose additional requirements or limitations; in this case Administration means the Government of the State whose flag the ship is entitled to fly and not the recognized organization."

38 The following new section 1.6 is added after section 1.5, together with the associated footnote:

"**1.6 *Remote inspection techniques (RIT)***

1.6.1 RIT surveys shall be carried out in accordance with the requirements given herein and the guidelines on the use of RIT.*

1.6.2 When using a RIT for close-up survey, if not carried out by the Administration itself, it shall be conducted by a firm approved as a service supplier by the Administration according to the principles stated in annex 8B of part A of annex B and shall be carried out under the presence of the surveyor and their continuous direction and control of the RIT process.

1.6.3 If the RIT reveals damage or deterioration that the surveyor judges requires attention or further investigation, the surveyor shall require a traditional survey to be undertaken without the use of a RIT.

1.6.4 Random confirmatory surveys/close-up surveys shall be carried out at locations selected by the surveyor for the purpose to verify the results of the RIT.

* Refer to the guidelines to be developed by the Organization

2 Renewal survey

2.4 *Extent of overall and close-up surveys*

39 The following new paragraph 2.4.5 is added after paragraph 2.4.4:

"2.4.5 When using a RIT to assist the close-up survey the following applies:

.1 for areas where means of access are required to enable the surveyor to examine the structure, the surveyor may use RIT to assist the close-up survey when access is not provided by the permanent means of access;

.2 the RIT to assist the close-up survey shall not be used after the third renewal survey, unless agreed with the Administration (see 1.5.2);

.3 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.4 the RIT shall not be used to assist the surveyor during the close-up survey in areas which have a recorded significant history of structural failures (corrosion, cracks and buckling). See Guidelines in annex 12, paragraph 3.1.1; and

.5 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated shall be included in the survey programme."

2.6 *Extent of tank pressure testing*

40 Sub-paragraph 2.6.1.3 is replaced by the following:

".3 the tank testing is carried out within the renewal survey window and not more than three months prior to the date on which the overall or close-up survey is completed;"

5 Preparations for survey

5.1 *Survey programme*

41 The following paragraph 5.1.6 is added after paragraph 5.1.5:

"5.1.6 If it is proposed to use a RIT, the proposal shall be submitted before the survey as part of the survey programme detailed above, discussed and approved by the Administration. The following shall be taken into account when preparing the survey programme:

.1 the RIT limitations, if any, shall be detailed in the survey programme;

.2 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT shall be detailed in the survey programme;

.3 the RIT to assist the close-up survey shall not be used after renewal survey No.3, unless agreed with the Administration (see 1.5.2);

.4 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.5 the RIT shall not be used to assist the surveyor during the close-up in areas which have a recorded significant history of structural failures defects, damage or deterioration (corrosion, cracks and buckling). See Guidelines in annex 12, paragraph 3.1.1; and

.6 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated are to be included in the survey programme."

5.2 *Conditions for survey*

42 Paragraph 5.2.3 is replaced by the following:

"5.2.3 In preparation for survey (including for surveys making use of RIT) and thickness measurements and to allow for a thorough examination, all spaces shall be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces shall be sufficiently clean and free from water, scale, dirt, oil residues, etc., to reveal corrosion, deformation, fractures, damages or other structural deterioration as well as the condition of the coating. However, those areas of structure whose renewal has already been decided by the owner need only be cleaned and descaled to the extent necessary to determine the limits of the areas to be renewed."

5.4 ***Equipment for survey***

43 The following new paragraph is added after paragraph 5.4.5, together with the associated footnote:

"5.4.6 The surveyor shall be satisfied with the method of data presentation including pictorial representation, and a good two-way communication between the surveyor and RIT operator shall be provided. Prior to every survey on board, the RIT shall be validated in accordance with the guidelines on the use of RIT,* taking into account the existing conditions (light, humidity, dust, etc.) to confirm that the expected results can be achieved.

* Refer to the guidelines to be developed by the Organization."

5.7 ***Survey planning meeting***

44 Paragraph 5.7.2 is replaced by the following:

"5.7.2 Prior to commencement of any part of the renewal or intermediate survey, a survey planning meeting shall be held between the attending surveyor(s), the owner's representative in attendance, the thickness measurement firm representative, the RIT firm representative, where involved, and the master of the ship or an appropriately qualified representative appointed by the master or company; for the purpose to ascertain that all the arrangements envisaged in the survey programme are in place, so as to ensure the safe and efficient conduct of the survey work to be carried out (see also 7.1.2)."

45 Paragraph 5.7.3 is replaced by the following:

"5.7.3 The following is an indicative list of items that shall be addressed in the meeting:

.1 schedule of the ship (i.e. voyage, docking and undocking manoeuvres, periods alongside, cargo and ballast operations, etc.);

.2 provisions and arrangements for thickness measurements (i.e. access, cleaning/descaling, illumination, ventilation, personal safety);

.3 extent of the thickness measurements;

.4 acceptance criteria (refer to the list of minimum thicknesses);

.5 extent of close-up survey and thickness measurement considering the coating condition and suspect areas/areas of substantial corrosion;

.6 execution of thickness measurements;

.7 taking representative readings in general and where uneven corrosion/pitting is found;

.8 mapping of areas of substantial corrosion; ~~and~~

.9 communication between attending surveyor(s), the thickness measurement firm operator(s) and owner representative(s) concerning findings.;

.10 the RIT limitations, if any;

.11 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT; and

.12 confirmatory surveys for RIT."

7 Procedures for thickness measurements

46 Section 7.2 is replaced as follows:

"**7.2** ***Certification of thickness measurement firm***

The thickness measurements shall be carried out by a qualified firm certified by the Administration according to the principles stated in annex 8A."

ANNEX 7B

SURVEY PLANNING QUESTIONNAIRE

2 Information on access provision for close-up surveys and thickness measurement

47 Section 2 is replaced by the following:

"The owner shall indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. normally within reach of hand.

When any part of the close-up survey is being undertaken by means of a RIT, the means of how thickness measurements are going to be taken shall also be indicated in the table below; the thickness measurements shall be carried out simultaneously with the close-up survey, either when required by the ESP Code or by the surveyor as a result of the close-up survey. Note: A RIT to assist the close-up survey may only be used when access is not provided by the permanent means of access. (See 1.5 and 5.1.6).

Hold/Tank No.	Structure	Permanent means of access	Temporary Staging	Rafts	Ladders	RIT	Direct access	Other Means (please specify)
F.P.	Fore peak							
…								

History of cargo with H_2S content or heated cargo for the last three years together with indication as to whether cargo was heated and, where available, Material Safety Data Sheets (MSDS)*

* Refer to resolution MSC.150(77) on *Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuel oils*."

ANNEX 8

PROCEDURES FOR APPROVAL AND CERTIFICATION OF A FIRM ENGAGED IN THICKNESS MEASUREMENT OF HULL STRUCTURES

48 After the existing annex 8, which is renumbered as "Annex 8A", the following annex 8B is inserted:

[At the approved stage the text to appear here would be identical to the text of annex 5B of Part A of Annex A. The full text will be inserted for circulation prior to adoption.]

ANNEX 9

SURVEY REPORTING PRINCIPLES

1 General

49 The following paragraphs 1.4 and 1.5 are added after paragraph 1.3:

"1.4 When RIT have been used then:

.1 the RIT report shall include all videos and images with a chapter detailing the areas covered and damages found with locations, type, details and dimensions;

.2 the report shall include the details of: RIT firm, approval certificate, equipment used and operators.

1.5 The report shall have evidence of being reviewed and approved by the attending surveyor(s)."

3 Result of the survey

50 Sub-paragraph 3.2.2 is replaced by the following:

".2 identification of compartments where no structural damages/defects are found. The report may be supplemented by sketches/photographs/videos; and"

Part B

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL TANKERS OTHER THAN DOUBLE-HULL OIL TANKERS

1 General

1.2 *Definitions*

51 Paragraph 1.2.17 is replaced by the following:

"1.2.17 *Administration* means the Administration or organization recognized by the Administration, unless defined otherwise in this Code."

52 The following new paragraph 1.2.18 is added after paragraph 1.2.17, together with the associated footnote:

"1.2.18 *Remote Inspection Technique (RIT)* is a means of survey of any parts of the structure without the need for direct physical access of the surveyor.[*]

[*] Refer to The guidelines to be developed by the Organization.

1.5 *Thickness measurements and close-up surveys*

53 Section 1.5 is replaced by the following:

"**1.5 *Thickness measurements and close-up surveys***

1.5.1 In any kind of survey, i.e. renewal, intermediate, annual or other surveys having the scope of the foregoing ones, for structures in areas where close-up surveys are required, thickness measurements, when required by annex 2, shall be carried out simultaneously with close-up surveys.

1.5.2 For periodic surveys after the third renewal survey, the use of RIT is subject to the agreement of the Administration, which may impose additional requirements or limitations; in this case the Administration means the Government of the State whose flag the ship is entitled to fly and not the recognized organization."

54 The following new section 1.6 is added after section 1.5:

"**1.6 *Remote inspection techniques (RIT)***

1.6.1 RIT surveys shall be carried out in accordance with the requirements given herein and the guidelines on the use of RIT.[*]

1.6.2 When using a RIT for close-up survey, if not carried out by the Administration itself, it shall be conducted by a firm approved as a service supplier by the Administration according to the principles stated in annex 7B of part B of annex B and shall be carried out under the presence of the surveyor and their continuous direction and control of the RIT process.

1.6.3 If the RIT reveals damage or deterioration that the surveyor judges requires attention or further investigation, the surveyor shall require a traditional survey to be undertaken without the use of a RIT.

1.6.4 Random confirmatory surveys or close-up surveys shall be carried out at locations selected by the surveyor for the purpose to verify the results of the RIT.

* Refer to the guidelines to be developed by the Organization

2 Renewal survey

2.4 *Extent of overall and close-up surveys*

55 The following new paragraph 2.4.5 is added after paragraph 2.4.4:

"2.4.5 When using a RIT to assist the close-up survey the following applies:

.1 for areas where means of access are required to enable the surveyor to examine the structure, the surveyor may use RIT to assist the close-up survey when access is not provided by the permanent means of access;

.2 the RIT to assist the close-up survey shall not be used after the third renewal survey, unless agreed with the Administration (see 1.5.2);

.3 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.4 the RIT shall not be used to assist the surveyor during the close-up survey in areas which have a recorded significant history of structural failures (corrosion, cracks and buckling). See Guidelines in annex 11, paragraph 3.1.1; and

.5 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated are to be included in the survey programme."

2.6 *Extent of tank pressure testing*

56 Sub-paragraph 2.6.1.3 is replaced by the following:

".3 the tank testing is carried out within the renewal survey window and not more than three months prior to the date on which the overall or close-up survey is completed;"

5 Preparations for survey

5.1. *Survey programme*

57 The following paragraph 5.1.6 is added after paragraph 5.1.5:

"5.1.6 If it is proposed to use a RIT, the proposal shall be submitted before the survey as part of the survey programme detailed above, discussed and approved by the Administration. The following shall be taken into account when preparing the survey programme:

.1 the RIT limitations, if any, shall be detailed in the survey programme;

.2 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT shall be detailed in the survey programme;

.3 the RIT to assist the close-up survey shall not be used after renewal survey No.3, unless agreed with the Administration (see 1.5.2);

.4 the RIT shall not be used in ballast tanks or any spaces where a hard protective coating is required and it is found to be in less than GOOD condition as defined in 1.2.11 or ballast tanks where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction;

.5 the RIT shall not be used to assist the surveyor during the close-up in areas which have a recorded significant history of structural failures defects, damage or deterioration (corrosion, cracks and buckling). See Guidelines in annex 12, paragraph 3.1.1; and

.6 in addition to the requirements of 1.5.1, when the RIT reveals suspected areas that require thickness measurements, these shall be carried out simultaneously with the close-up survey, details of how this will be facilitated are to be included in the survey programme."

5.2 *Conditions for survey*

58 Paragraph 5.2.3 is replaced by the following:

"5.2.3 In preparation for survey (including for surveys making use of RIT) and thickness measurements and to allow for a thorough examination, all spaces shall be cleaned including removal from surfaces of all loose accumulated corrosion scale. Spaces shall be sufficiently clean and free from water, scale, dirt, oil residues, etc., to reveal corrosion, deformation, fractures, damages or other structural deterioration as well as the condition of the coating. However, those areas of structure whose renewal has already been decided by the owner need only be cleaned and descaled to the extent necessary to determine the limits of the areas to be renewed."

5.4 ***Equipment for survey***

59 The following new paragraph is added after paragraph 5.4.5, together with the associated footnote:

"5.4.6 The surveyor shall be satisfied with the method of data presentation including pictorial representation, and a good two-way communication between the surveyor and RIT operator shall be provided. Prior to every survey on board, the RIT shall be validated in accordance with the guidelines on the use of RIT,* taking into account the existing conditions (light, humidity, dust, etc.) to confirm that the expected results can be achieved.

* Refer to the guidelines to be developed by the Organization."

5.7 ***Survey planning meeting***

60 Paragraph 5.7.2 is replaced by the following:

"5.7.2 Prior to commencement of any part of the renewal or intermediate survey, a survey planning meeting shall be held between the attending surveyor(s), the owner's representative in attendance, the thickness measurement firm representative, the RIT firm representative, where involved, and the master of the ship or an appropriately qualified representative appointed by the master or company; for the purpose to ascertain that all the arrangements envisaged in the survey programme are in place, so as to ensure the safe and efficient conduct of the survey work to be carried out (see also 7.1.2)."

61 Paragraph 5.7.3 is replaced by the following:

"5.7.3 The following is an indicative list of items that shall be addressed in the meeting:

.1 schedule of the ship (i.e. voyage, docking and undocking manoeuvres, periods alongside, cargo and ballast operations, etc.);

.2 provisions and arrangements for thickness measurements (i.e. access, cleaning/descaling, illumination, ventilation, personal safety);

.3 extent of the thickness measurements;

.4 acceptance criteria (refer to the list of minimum thicknesses);

.5 extent of close-up survey and thickness measurement considering the coating condition and suspect areas/areas of substantial corrosion;

.6 execution of thickness measurements;

.7 taking representative readings in general and where uneven corrosion/pitting is found;

.8 mapping of areas of substantial corrosion; ~~and~~

.9 communication between attending surveyor(s), the thickness measurement firm operator(s) and owner representative(s) concerning findings~~.~~;

.10 the RIT limitations, if any;

.11 details of the areas not fully accessed by the permanent means of access and proposed to be covered with the RIT; and

.12 confirmatory surveys for RIT."

7 Procedures for thickness measurements

62 Section 7.2 is replaced as follows:

"**7.2** ***Certification of thickness measurement firm***

The thickness measurements shall be carried out by a qualified firm certified by the Administration according to the principles stated in annex 7A."

ANNEX 6B

SURVEY PLANNING QUESTIONNAIRE

2 Information on access provision for close-up surveys and thickness measurement

63 Section 2 is replaced by the following:

"The owner shall indicate, in the table below, the means of access to the structures subject to close-up survey and thickness measurement. A close-up survey is an examination where the details of structural components are within the close visual inspection range of the attending surveyor, i.e. normally within reach of hand.

When any part of the close-up survey is being undertaken by means of a RIT, the means of how thickness measurements are going to be taken shall also be indicated in the table below; the thickness measurements shall be carried out simultaneously with the close-up survey, either when required by the ESP Code or by the surveyor as a result of the close-up survey. Note: A RIT to assist the close-up survey may only be used when access is not provided by the permanent means of access. (See 1.5 and 5.1.6).

Hold/Tank No.	Structure	Permanent means of access	Temporary Staging	Rafts	Ladders	RIT	Direct access	Other Means (please specify)
F.P.	Fore peak							
…								

History of cargo with H_2S content or heated cargo for the last three years together with indication as to whether cargo was heated and, where available, Material Safety Data Sheets (MSDS)*

* Refer to resolution MSC.150(77) on *Recommendation for material safety data sheets for MARPOL Annex I cargoes and marine fuel oils*."

ANNEX 7

PROCEDURES FOR APPROVAL AND CERTIFICATION OF A FIRM ENGAGED IN THICKNESS MEASUREMENT OF HULL STRUCTURES

64 The existing title of annex 7 is replaced by the following:

"ANNEX 7A

PROCEDURES FOR APPROVAL AND CERTIFICATION OF A FIRM ENGAGED IN THICKNESS MEASUREMENT OF HULL STRUCTURES"

65 After the existing annex 7, which is renumbered as "Annex 7B", the following annex 7B is inserted:

[At the approval stage the text to appear here would be identical to the text of annex 5B of Part A of Annex A. The full text will be inserted for circulation prior to adoption.]

ANNEX 8

SURVEY REPORTING PRINCIPLES

1 General

66 The following paragraphs 1.4 and 1.5 are added after paragraph 1.3:

"1.4 When RIT have been used then:

.1 the RIT report shall include all videos and images with a chapter detailing the areas covered and damages found with locations, type, details and dimensions;

.2 the report shall include the details of: RIT firm, approval certificate, equipment used and operators.

1.5 The report shall have evidence of being reviewed and approved by the attending surveyor(s)."

3 Result of the survey

67 Sub-paragraph 3.2.2 is replaced by the following:

".2 identification of compartments where no structural damages/defects are found. The report may be supplemented by sketches/photographs/videos; and"

***

ANNEX 13*

DRAFT AMENDMENTS TO THE PROTOCOL OF 1988 RELATING TO THE INTERNATIONAL CONVENTION ON LOAD LINES, 1966 (1988 LOAD LINES PROTOCOL)

Annex B
ANNEXES TO THE CONVENTION AS MODIFIED BY THE PROTOCOL OF 1988 RELATING THERETO

Annex I
Regulations for determining load lines

Chapter II
Conditions of assignment of freeboard

Regulation 25 Protection of the crew

1 The following application provision is introduced before paragraph (1):

"This regulation, as amended by resolution [MSC… (…)], shall apply to ships the keels of which are laid, or which are at a similar stage of construction on or after [1 January 2028]."

2 Paragraph (2) is replaced by the following:

"Guard rails or bulwarks shall be fitted around all exposed decks and all exposed sea access holes (such as edges of moonpools) accessible to the crew during navigation. The height of the bulwarks or guard rails shall be at least 1 m from the deck. If this height interferes with the normal operation of the ship ~~provided that where this height would interfere with the normal operation of the ship~~, a lesser height may be approved, if the Administration is satisfied that adequate protection is provided."

3 The chapeau of paragraph (3) is replaced by the following:

"Guard rails referred to in paragraph (2) ~~fitted on superstructure and freeboard decks~~ shall have at least three courses. The opening below the lowest course of the guard rails shall not exceed 230 mm. The other courses shall be not more than 380 mm apart. In the case of ships with rounded gunwales the guard rail supports shall be placed on the flat of the deck. ~~In other locations, guardrails with at least two courses shall be fitted~~. Guard rails shall comply with the following provisions:"

4 Sub-paragraph (3)(d) is replaced by the following:

"(d) where necessary for the normal operation of the ship, chains fitted between two fixed stanchions and/or bulwarks are acceptable in lieu of guard rails, which shall be tightened as much as reasonably practicable and shall be detachable."

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* Tracked changes are created using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

ANNEX 16*

DRAFT AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCE CODE (LSA CODE)

Preamble

1 The preamble is amended, as follows:

"1 The purpose of this Code is to provide international standards for life-saving appliances required by chapter III of the International Convention for the Safety of Life at Sea (SOLAS), 1974.

2 ~~On and after 1 July 1998,~~ The requirements of this Code ~~will be~~ are mandatory under the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, for ships constructed on or after 1 July 1998. ~~Any future A~~amendments to the Code ~~will be~~ are adopted and brought into force in accordance with the procedure laid down in article VIII of that Convention.

3 Since the LSA Code (resolution MSC.48(66)) entered into force, the Code has been amended as follows:

[Before circulation for adoption, the Secretariat will insert a table listing all amended regulations since the adoption of the Code together with application dates and corresponding resolutions (MSC.1/Circ.1500/Rev.3, annex 1, example regulation 1)]

Regulation	Application date	Adopted by
…	..	..
..	..	..
..	..	

"

CHAPTER II
PERSONAL LIFE-SAVING APPLIANCES

2.2 Lifejackets

2.2.1 General requirements for lifejackets

2 Paragraph 2.2.1.6.2 (as amended by resolution MSC.554(108)) is amended, as follows:

".2 for lifejackets provided on or after 1 January 2026, turn the body of unconscious, face-down persons in the water to a face-up position where the nose and mouth are clear of the water in an average time not exceeding that of the RTD plus 1 s;"

* Tracked changes are created using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

3 The following new paragraph 2.2.1.18 is added after existing paragraph 2.2.1.17:

"2.2.1.18 for the application of the requirement in paragraph 2.2.1.6.2, the expression "*lifejackets provided on or after 1 January 2026"* means lifejackets, having a contractual delivery date to the ship on or after 1 January 2026 or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after 1 January 2026."

CHAPTER IV
PERSONAL LIFE-SAVING APPLIANCES

4.4 General requirements for lifeboats

4.4.7 Lifeboat fittings

4 Paragraph 4.4.7.6.8 (as amended by resolution MSC.554(108)) is amended, as follows:

".8 for those lifeboats installed on or after 1 January 2026, to prevent an accidental release during recovery of the boat, the hook shall not be able to support any load unless the hook is completely reset. In the case of a hook which is capable of releasing the lifeboat or rescue boat with a load on the hook when it is not fully waterborne, the handle or safety pins shall not be able to be returned to the reset (closed) position, and any indicators shall not indicate the release mechanism is reset, unless the hook is completely reset. Additional danger signs shall be posted at each hook station to alert crew members to the proper method of resetting;"

5 Paragraph 4.4.7.6.17 (as amended by resolution MSC.554(108)) is amended, as follows:

".17 for those lifeboats installed on or after 1 January 2026, where a single fall and hook system is used for launching a lifeboat or rescue boat in combination with a suitable painter, the requirements of paragraphs 4.4.7.6.7 and 4.4.7.6.15 need not be applicable; provided that the single fall and hook system does not have the capability to release the lifeboat or rescue boat with a load on the hook when it is not fully waterborne."

6 The following new paragraph 4.4.7.6.18 is added after existing paragraph 4.4.7.6.17:

".18 for the application of the requirements in paragraphs 4.4.7.6.8 and 4.4.7.6.17, the expression "*lifeboats installed on or after 1 January 2026*" means lifeboats having a contractual delivery date to the ship on or after 1 January 2026 or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after 1 January 2026."

4.6 Totally enclosed lifeboats

7 Paragraph 4.6.6 (as amended by resolution MSC.535(107)) is amended, as follows:

"**4.6.6 Ventilation means**

(For totally enclosed lifeboats installed on or after 1 January 2029, the following requirements apply)

4.6.6.1 A totally enclosed lifeboat shall be provided with means to achieve a ventilation rate of at least 5 m^3/h per person for the number of persons which the lifeboat is permitted to accommodate and for a period of not less than 24 hours. The ventilation means shall be operable from inside the lifeboat and shall be arranged to ensure that the lifeboat is ventilated without stratification or formation of unventilated pockets.

4.6.6.2 Where the means of ventilation is powered, the source shall not be the radio batteries referred to in paragraph 4.4.6.11; and where dependent on the lifeboat engine, sufficient fuel shall be provided to comply with paragraph 4.4.6.8."

8 Paragraph 4.6.7 (as amended by resolution MSC.535(107)) is amended, as follows:

"**4.6.7 Openings of the ventilation system and their means of closing**

(For totally enclosed lifeboats installed on or after 1 January 2029, the following requirements apply)

4.6.7.1 Each opening of the ventilation means required in paragraph 4.6.6 shall be provided with means of closing. The means of closing shall be operable by a person from inside the lifeboat. Means shall be provided to ensure that the openings can be kept closed before, i.e. while in the stowed position, and during the launching of the lifeboat.

4.6.7.2 Inlet and outlet openings of the ventilation means and their external fittings shall be located and designed in order to minimize the ingress of water through the openings, without using the means of closing required in paragraph 4.6.7.1 and taking into consideration the requirements provided in paragraph 4.6.3.2.

4.6.7.3 For a free-fall lifeboat complying with the requirements of section 4.7, the openings and their means of closing shall be designed to withstand the loads and to prevent ingress of water under the anticipated submerged condition of the lifeboat at the time of free-fall launching.

4.6.7.4 For a lifeboat with a self-contained air support system complying with the requirements of section 4.8, the openings and their means of closing shall be designed to maintain the pressure required by section 4.8.

4.6.7.5 For a fire-protected lifeboat complying with the requirements of section 4.9, the openings and their means of closing shall be designed to ensure that the capability of protecting persons in the lifeboat is not impaired, under the conditions specified in paragraph 4.9.1."

9 The following new paragraph 4.6.8 is added after existing paragraph 4.6.7:

"4.6.8 For the application of the requirements in paragraphs 4.6.6 and 4.6.7, the expression "*totally enclosed lifeboats installed on or after 1 January 2029"* means totally enclosed lifeboats having a contractual delivery date to the ship on or after 1 January 2029 or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after 1 January 2029."

4.7 Free-fall lifeboats

10 The following new paragraph 4.7.7 is inserted after existing paragraph 4.7.6, and existing paragraph 4.7.7 is renumbered as 4.7.8:

"4.7.7 Lifeboat release testing

4.7.7.1 For each free-fall lifeboat installed on or after [1 January 2031], the arrangement to test the release system under load without launching the lifeboat into the water, in accordance with paragraph 4.7.6.4, shall be designed with a safety factor of at least 6 on the basis of the calculated maximum working load with full complement of persons and equipment and the ultimate strength of the materials used for its construction considering static and relevant dynamic loads. Components of this arrangement that are exposed to the marine environment, other than falls and temporarily installed equipment, shall be constructed from materials that are corrosion resistant in the marine environment without the need for coatings or galvanizing.

11 The following new paragraph is inserted after 4.7.7.1 as follows:

4.7.7.2 For the application of the requirements in paragraph 4.7.7.1, the expression "*free-fall lifeboat installed on or after [1 January 2031]"* means a free-fall lifeboat having a contractual delivery date to the ship on or after [1 January 2031] or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after [1 January 2031]."

CHAPTER VI

LAUNCHING AND EMBARKATION APPLIANCES

6.1 Launching and embarkation appliances

12 Paragraph 6.1.1.3 is amended, as follows:

"A launching appliance shall not depend on any means other than gravity or stored mechanical power which is independent of the ship' s power supplies to launch the survival craft or rescue boat it serves in the fully loaded and equipped condition and also in the light condition.

Notwithstanding the above, for a rescue boat, installed on or after 1 January 2024 on a cargo ship ~~equipped with a rescue boat~~ which is not one of the ship's survival craft, having a mass not more than 700 kg in fully equipped condition, with engine, but without the crew, the launching appliance of the boat does not need to be fitted with stored mechanical power provided that:

.1 manual hoisting from the stowed position and turning out to the embarkation position is possible by one person;

.2 the force on the crank handle does not exceed 160 N at the maximum crank radius of 350 mm; and

.3 means having sufficient strength such as bowsing line are provided for bringing the rescue boat against the ship's side and holding it alongside so that persons can be safely embarked."

13 The following new text is inserted at the end of existing paragraph 6.1.1.3:

"For the application of the requirements in this paragraph, the expression "*rescue boat installed on or after 1 January 2024"* means a rescue boat having a contractual delivery date to the ship on or after 1 January 2024 or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after 1 January 2024."

6.1.2 Launching appliances using falls and a winch

14 Paragraph 6.1.2.8 (as amended by resolution MSC.554(108)) is amended, as follows:

"6.1.2.8 The speed at which the fully loaded survival craft or rescue boat installed on or after 1 January 2026~~,~~ is lowered to the water shall not be less than that obtained from the formula:

$S = 0.4 + 0.02 \cdot H$ or 1.0, whichever is less

where:

S is the lowering speed in metres per second and

H is the height in metres from the davit head to the waterline with the ship at the lightest seagoing condition."

15 Paragraph 6.1.2.10 (as amended by resolution MSC.554(108)) is amended, as follows:

"6.1.2.10 The maximum lowering speed of a fully loaded survival craft or rescue boat installed on or after 1 January 2026~~,~~ shall be 1.3 m/s. The Administration may accept a maximum lowering speed other than 1.3 m/s, having regard to the design of the survival craft or rescue boat, the protection of its occupants from excessive forces, and the strength of the launching arrangements taking into account inertia forces during an emergency stop. Means shall be incorporated in the appliance to ensure that this speed is not exceeded."

16 The following new paragraph 6.1.2.14 is added after existing paragraph 6.1.2.13:

"6.1.2.14 For the application of the requirements in paragraphs 6.1.2.8 and 6.1.2.10, the expression "*survival craft or rescue boat installed on or after 1 January 2026"* means a survival craft or a rescue boat having a contractual delivery date to the ship on or after 1 January 2026 or, in the absence of a contractual delivery date to the ship, actually delivered to the ship on or after 1 January 2026."

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ANNEX 22

DRAFT AMENDMENTS TO SOLAS CHAPTER V AND APPENDIX

CHAPTER V
SAFETY OF NAVIGATION

Regulation 18
Approval, surveys and performance standards of navigational systems and equipment and voyage data recorder

1 In the footnote to paragraph 18.2, the following new entry is added after "*Recommendation on performance standards for universal shipborne automatic identification system (AIS)* (resolution MSC.570(109));" and before "*Recommendation on performance standards for echo-sounding equipment* (resolution A.224(VII), as amended);":

"*Performance standards for VHF data exchange system (VDES)* (resolution MSC.[…]);".

2 Paragraph 9 is amended as follows:

"9 The automatic identification system (AIS) or VHF data exchange system (VDES) shall be subjected to an annual test. The test shall be conducted by an approved surveyor or an approved testing or servicing facility. The test shall verify the correct programming of the ship's static information, correct data exchange with connected sensors as well as verifying the radio performance by radio frequency measurement and on-air test using e.g. a Vessel Traffic Service (VTS). A copy of the test report shall be retained on board the ship".

Regulation 19
Carriage requirements for shipborne navigational systems and equipment

2 Shipborne navigational equipment and systems

3 Paragraph 2.4 is amended as follows:

"2.4 All ships of 300 gross tonnage and upwards engaged on international voyages and cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size shall be fitted with an automatic identification system (AIS) or VHF data exchange system (VDES), as follows:

~~.1 ships constructed on or after 1 July 2002;~~

~~.2 ships engaged on international voyages constructed before 1 July 2002:~~

~~.2.1 in the case of passenger ships, not later than 1 July 2003;~~

~~.2.2 in the case of tankers, not later than the first survey for safety equipment* on or after 1 July 2003;~~

~~.2.3 in the case of ships, other than passenger ships and tankers, of 50,000 gross tonnage and upwards, not later than 1 July 2004;~~

~~.2.4 in the case of ships, other than passenger ships and tankers, of 300 gross tonnage and upwards but less than 50,000 gross tonnage, not later than the first safety equipment survey** after 1 July 2004 or by 31 December 2004, whichever occurs earlier; and~~

~~.3 ships not engaged on international voyages constructed before 1 July 2002, not later than 1 July 2008;~~

~~.4 the Administration may exempt ships from the application of the requirements of this paragraph when such ships will be taken permanently out of service within two years after the implementation date specified in sub-paragraph.2 and.3;~~

.~~5~~1 AIS or VDES shall:

.1 provide automatically to appropriately equipped shore stations, other ships and aircraft information, including the ship's identity, type, position, course, speed, navigational status and other safety-related information;

.2 receive automatically such information from similarly fitted ships;

.3 monitor and track ships; and

.4 exchange data with shore-based facilities.

.~~6~~2 the requirements of paragraph 2.4.1~~5~~ shall not be applied to cases where international agreements, rules or standards provide for the protection of navigational information; and

.~~7~~3 AIS or VDES shall be operated taking into account the guidelines adopted by the Organization.* Ships fitted with AIS or VDES shall maintain AIS or VDES in operation at all times except where international agreements, rules or standards provide for the protection on navigational information.

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* Refer to *Revised guidelines for the onboard operational use of shipborne automatic identification systems (AIS)* (resolution A.1106(29)) and *Guidelines for the operational use of VHF data exchange system (VDES)* (MSC.1/Circ. […])"

Regulation 19-1
Long-range identification and tracking of ships

4 paragraph 4.2 is amended as follows:

"4.2 Ships, irrespective of the date of construction, fitted with an automatic identification system (AIS) or VHF data exchange system (VDES), as defined in regulation 19.2.4, and operated exclusively within sea area A1, as defined in regulation IV/2.1.1~~2~~5, shall not be required to comply with the provisions of this regulation."

APPENDIX

CERTIFICATES

Record of equipment for passenger ship safety (Form P)

5 In section 5 (*Details of navigational systems and equipment*), item 4.1 is amended as follows:

"Automatic identification system (AIS) or VHF data exchange system (VDES)".

Record of equipment for cargo ship safety (Form E)

6 In section 3 (*Details of navigational systems and equipment*), item 4.1 is amended as follows:

"Automatic identification system (AIS) or VHF data exchange system (VDES)".

Record of equipment for cargo ship safety (Form C)

7 In section 5 (*Details of navigational systems and equipment*), item 4.1 is amended as follows:

"Automatic identification system (AIS) or VHF data exchange system (VDES)".

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ANNEX 23

DRAFT AMENDMENTS TO 1994 HSC CODE

Chapter 13
SHIPBORNE NAVIGATIONAL SYSTEMS AND EQUIPMENT AND VOYAGE DATA RECORDER

13.15 Automatic identification system (AIS)

1 Paragraphs 13.15.1 to 13.15.4 are amended as follows:

"13.15.1 Craft should be provided with an automatic identification system (AIS) or VHF data exchange system (VDES).

13.15.2 AIS or VDES should:

.1 provide automatically to appropriately equipped shore stations, other vessels and aircraft information, including the craft's identity, type, position, course, speed, navigational status and other safety-related information;

.2 receive automatically such information from similarly fitted vessels;

.3 monitor and track vessels; and

.4 exchange data with shore-based facilities.

13.15.3 The requirements of 13.15.2 should not be applied to cases where international agreements, rules or standards provide for the protection of navigational information.

13.15.4 AIS or VDES should be operated taking into account the guidelines developed by the Organization".

ANNEX 1

FORM OF HIGH-SPEED CRAFT SAFETY CERTIFICATE

Record of Equipment for High-Speed Craft Safety Certificate

5 Details of navigational systems and equipment

2 In section 13, the entry is amended as follows:

"13 Automatic identification system (AIS) or VHF data exchange system (VDES)"

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ANNEX 24

DRAFT AMENDMENTS TO 2000 HSC CODE

CHAPTER 13
NAVIGATIONAL EQUIPMENT

13.15 Automatic identification system

1 Paragraphs 13.15.1 to 13.15.4 are amended as follows:

"13.15.1 Craft shall be provided with an automatic identification system (AIS) or VHF data exchange system (VDES).

13.15.2 AIS or VDES shall:

.1 provide automatically to appropriately equipped shore stations, other vessels and aircraft information, including the craft's identity, type, position, course, speed, navigational status and other safety-related information;

.2 receive automatically such information from similarly fitted vessels;

.3 monitor and track vessels; and

.4 exchange data with shore-based facilities.

13.15.3 The requirements of 13.15.2 shall not apply where international agreements, rules or standards provide for the protection of navigational information.

13.15.4 AIS or VDES shall be operated taking into account the guidelines adopted by the Organization."

ANNEX 1

FORM OF HIGH-SPEED CRAFT SAFETY CERTIFICATE

Record of Equipment for High-Speed Craft Safety Certificate

5 Details of navigational systems and equipment

2 In section 13, the entry is amended as follows:

"13 Automatic identification system (AIS) or VHF data exchange system (VDES)"

***

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1690
5 September 2025

VOLUNTARY EARLY IMPLEMENTATION OF THE AMENDMENTS TO SOLAS REGULATION V/23 ON PILOT TRANSFER ARRANGEMENTS

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), adopted amendments to SOLAS regulation V/23 on Pilot transfer arrangements by resolution MSC.572(110).

2 The entry-into-force date of the aforementioned amendments is 1 January 2028.

3 In adopting the amendments to SOLAS regulation V/23 on Pilot transfer arrangements, the Committee, having considered the need for their voluntary early implementation, in accordance with the *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1565), agreed to encourage the Contracting Governments to the International Convention for the Safety of Life at Sea, 1974, to implement them prior to the entry-into-force date.

4 Voluntary early implementation should be communicated by a Contracting Government to the Organization for dissemination through GISIS (module on survey and certification).

5 In addition to the aforementioned communication, a Contracting Government may also consider the use of the existing provisions for equivalent arrangements under SOLAS regulation I/5 to cover the interim period between the date of the voluntary early implementation and the entry-into-force date of the amendments.

6 A Contracting Government, in line with paragraph 1.2.4 of the *Procedures for Port State Control, 2023* (resolution A.1185(33)), as may be amended, when acting as a port State, should refrain from enforcing its decision to voluntarily early implement the amendments to SOLAS regulation V/23 on Pilot transfer arrangements to ships entitled to fly the flag of other Contracting Governments, calling at its ports.

7 The Contracting Governments, when undertaking port State control activities, should take into account the present invitation and any subsequent notifications communicated by other Contracting Governments through GISIS.

8 Contracting Governments are invited to be guided accordingly and to bring the contents of this circular to the attention of all concerned, especially port State control authorities and recognized organizations.

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1691
28 August 2025

INTERIM GUIDELINES FOR EMERGENCY TOWING ARRANGEMENTS ON SHIPS OTHER THAN TANKERS

1 The Maritime Safety Committee, at its 108th session (15 to 24 May 2024), adopted resolution MSC.549(108), containing amendments to SOLAS regulation II-1/3-4 in relation to new requirements for new ships, other than tankers, of not less than 20,000 GT, to be fitted with emergency towing arrangements, with the expected entry-into-force date of 1 January 2028.

2 The Committee, at its 110th session (18 to 27 June 2025), having considered a proposal by the Sub-Committee on Ship Design and Construction, at its eleventh session (13 to 17 January 2025), with a view to ensuring a uniform approach towards the application of the aforementioned SOLAS provisions, approved the *Interim guidelines for emergency towing arrangements on ships other than tankers*, as set out in the annex.

3 Member Governments are invited to use the annexed Interim Guidelines when applying the amended SOLAS regulation II-1/3-4.2, and to bring it to the attention of all parties concerned.

***

ANNEX

INTERIM GUIDELINES FOR EMERGENCY TOWING ARRANGEMENTS ON SHIPS OTHER THAN TANKERS

1 PURPOSE

1.1 Under regulation II-1/3-4.2 of the 1974 SOLAS Convention, as amended by resolution MSC.549(108), ships, other than tankers, of not less than 20,000 gross tonnage, constructed on or after 1 January 2028, shall be fitted with an emergency towing arrangement (ETA), the design and construction of which shall be approved by the Administration, based on the Guidelines developed by the Organization.

1.2 The present Interim Guidelines are intended to provide standards for the design and construction of emergency towing arrangements, which Administrations are recommended to implement.

2 REQUIREMENTS FOR THE ARRANGEMENTS AND COMPONENTS

2.1 General

The emergency towing arrangements should be so designed as to facilitate emergency towing operations. The arrangements should at all times be capable of rapid deployment in the absence of main power on the ship to be towed and easy connection to the towing vessel.

2.2 Towing components

The major components of the towing arrangements consist of the following:

Components		Strength requirements
Pick-up gear	Optional	---
Towing pennant	Optional	Yes
Chafing gear	Optional	Yes
Closed fairlead such as "Chock"	Depending on design	Yes
Strongpoint such as "Bollard" or "Bitt"	Yes	Yes
Roller pedestal	Depending on design	---

2.3 Strength of the towing components

2.3.1 Towing components, as specified in section 2.2 for strength, should have a working strength sufficient to withstand the required towing load specified in the following table:

Ship with Equipment Number (EN)[1]	**Required towing load (kN)**
EN<3,000	1,000
3,000 ≤EN< 10,000	2,000
EN≥10,000	EN * 0.2 or greater as determined by the Administration

The strength should be sufficient for all relevant angles of towline, i.e. up to 90° from the ship's centreline to port and starboard and 30° vertical downward.

The working strength is defined as one half (0.5) of the ultimate strength.

[1] Equipment Number (EN) should be calculated taking into account MSC.1/Circ.1175/Rev.2.

2.3.2 The required towing load may be achieved by summing the design towing loads of multiple arrangements. When the required towing load is achieved through multiple arrangements, the deployment of all arrangements should be completed within the specified time as required in paragraph 3.1.2.

2.3.3 Other components should have a working strength sufficient to withstand the load to which such components may be subjected during the towing operations.

2.4 Location of strongpoint and closed fairlead

The strong point and closed fairleads, if provided, should be located so as to facilitate towing from either side of the bow or stern and minimize the stress on the towing system.

2.5 Strongpoint

The inboard end fastening should be a stopper, bracket, bollard, bitt, or other fitting of equivalent strength. The strongpoint can be designed integral with the fairlead.

2.6 Closed fairleads

The closed fairlead should be sized to accommodate the towing operation and to provide adequate support for the towing equipment during towing operation.

2.7 Chafing gear

If a chafing gear is provided, it should have the following characteristics:

2.7.1 Type

The chafing chain should be stud link chain.

2.7.2 Length

The chafing gear should be long enough to ensure that the towing pennant remains outside the fairlead during the towing operation. A chain extending from the strongpoint to a point at least 3 m beyond the fairlead should meet this criterion.

2.7.3 Connecting limits

One end of the chafing gear should be suitable for connection to the strongpoint. The other end should be fitted with a standard pear-shaped studless link allowing connection to a standard bow shackle.

2.7.4 Stowage

The chafing gear should be stowed in such a way that it can be rapidly connected to the strongpoint.

2.8 Towing pennant

If a towing pennant is provided, it should have a length of at least twice the lightest seagoing ballast freeboard at the fairlead plus 50 m.

The towing pennant should have a hard eye-formed termination allowing connection to a standard bow shackle.

2.9 Prototype test

Designs of emergency towing arrangements in accordance with these Interim Guidelines should be prototype tested to the satisfaction of the Administration.

Shipboard towing fittings should be demonstrated as adequate for the emergency towing loads by means of a submitted engineering analysis or calculations. If the structural configuration is of a particularly complex or novel nature, such that its load bearing adequacy cannot be satisfactorily determined by engineering analysis, suitable proof test will be required.

Towline components and articles of loose gear should be tested to the satisfaction of the Administration or industry standard acceptable to the Administration. Where a manufacturer requests a certificate of type approval for a component, it should be tested to 200% of its safe working load.

3 READY AVAILABILITY OF TOWING ARRANGEMENTS

3.1 To facilitate approval of such equipment and to ensure rapid deployment, emergency towing arrangements should comply with the following criteria:

.1 the pick-up gear for the towing pennant, if provided, should be designed for manual operation taking into account the absence of power and the potential for adverse environmental conditions that may prevail during such emergency towing operations. The pick-up gear should be protected against the weather and other adverse conditions that may prevail;

.2 the emergency towing arrangement should be capable of being deployed in harbour conditions in not more than one hour;

.3 the emergency towing arrangement should be designed at least with a means of securing a towline to the strong point; and

.4 all emergency towing arrangements should be clearly marked to facilitate safe and effective use even in darkness and poor visibility.

3.2 All emergency towing components should be inspected by ship personnel at regular intervals and maintained in good working order.

3.3 Time for deployment

3.3.1 For the purpose of calculating the "time for deployment" of ETA, the following assumption should apply:

.1 the time starts when the order for deployment of ETA is given:

.1 all relevant personnel are in their designated positions, wearing lifejackets and protective equipment; and

.2 after the appropriate tugboat(s) have arrived at the ship to be towed;[2] and

.2 the time ends when the ETA is fully prepared and readily available to be properly connected to both the ship to be towed and the tugboat(s).

[2] "Time for deployment" does not include the time expended waiting for the arrival of the tugboat(s).

If a towing pennant is equipped on the ship to be towed, the time for deployment of ETA ends when the towing pennant is positioned at an appropriate height near the water surface, neglecting the time for connecting the tow line to the towing pennant.

3.3.2 For example, time for deployment of ETA can be calculated by summing up the estimated times required for relevant procedures, as appropriate, as follows:

.1 preparation of a messenger rope (on the ship to be towed);

.2 deliver the messenger rope to a tugboat;

.3 connect the messenger rope to towing pennant (on a tugboat);

.4 feed the towing pennant from a tugboat to the ship;

.5 temporarily moor the towing pennant to an appropriate bollard on the ship to be towed;

.6 connect eye splice of the towing pennant to the post of bollard; and

.7 wind up the towing pennant by a winch of the tugboat.

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1692
28 August 2025

UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/12.6.2

1 The Maritime Safety Committee, at its 110th session (18 to 27June 2025), approved a unified interpretation of SOLAS regulation II-1/12.6.2*,* to clarify the term "remotely operated valve", with a view to building uniform and universal implementation, as set out in the annex.

2 Member States are invited to use the annexed unified interpretation as guidance when applying SOLAS regulation II-1/12.6.2, and to bring it to the attention of all parties concerned.

***

ANNEX

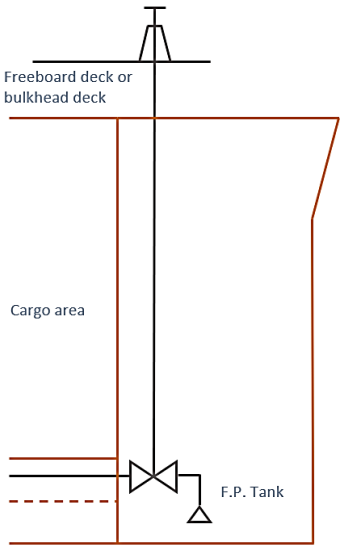
UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/12.6.2

The following unified interpretation clarifies the term "remotely controlled valve" used in SOLAS regulation II-1/12.6.2:

.1 for compliance with SOLAS regulation II-1/12.6.2, as amended by resolution MSC.474(102), the valve fitted on the pipe piercing a ship's collision bulkhead below the bulkhead deck of passenger ships and the freeboard deck of cargo ships may be either a deck standing manual type or a mechanically powered type with a fail-close arrangement; and

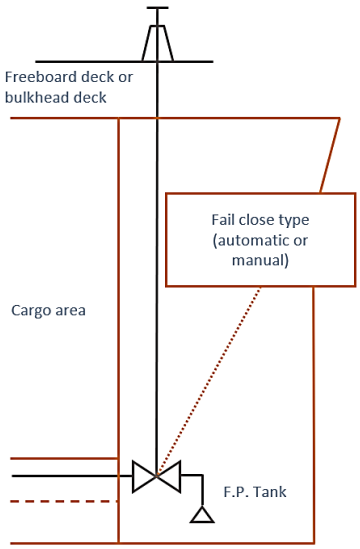
.2 for the purpose of the fail-close arrangement, the valve should be of an automatic fail-close type or should have an additional manual-closing function activated from a position above the bulkhead deck of passenger ships and the freeboard deck of cargo ships.

Illustration of allowable and not allowable arrangements



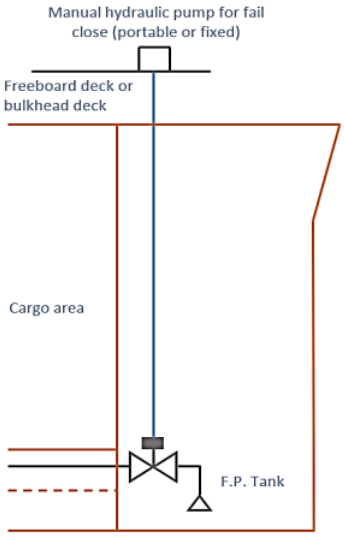
Case 1 (Not allowable)

- Manual deck stand controlled from the freeboard deck or bulkhead deck
- When fail, the valve remains at its current position



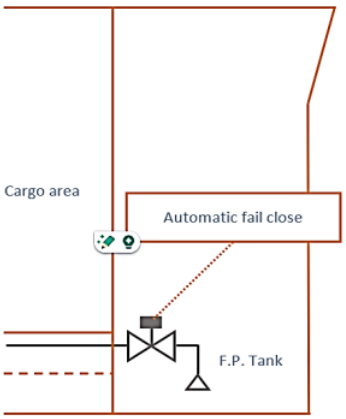
Case 2 (Allowable)

- Manual deck stand controlled from the freeboard deck or bulkhead deck
- Fail-close type valve (automatic close, or manual close from the freeboard deck or bulkhead deck)



Case 3 (Allowable)

- Actuated mechanically and controlled remotely from cargo control room, etc.
- Manual fail-close from above the freeboard deck or bulkhead deck



Case 4 (Allowable)

- Actuated mechanically and controlled remotely from cargo control room, etc.
- Automatic fail-close

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1693
4 July 2025

UNIFIED INTERPRETATIONS OF PARAGRAPHS 6.1.1.3 AND 6.1.2.2 OF THE LSA CODE

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), approved the unified interpretations of paragraphs 6.1.1.3 and 6.1.2.2 of the LSA Code, prepared by the Sub-Committee on Ship Systems and Equipment, at its eleventh session (24 to 28 February 2025), with a view towards universal and uniform implementation of paragraphs 6.1.1.3 and 6.1.2.2 of the LSA Code on the launching appliances and launching mechanisms, as set out in the annex.

2 Member States are invited to use the annexed unified interpretations as guidance when applying paragraphs 6.1.1.3 and 6.1.2.2 of the LSA Code and to bring them to the attention of all parties concerned.

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ANNEX

UNIFIED INTERPRETATIONS OF PARAGRAPHS 6.1.1.3 AND 6.1.2.2 OF THE LSA CODE

Paragraph 6.1.1.3 of the LSA Code

For cargo ships, hoisting up of a dedicated rescue boat from its stowed position should be considered as part of launching preparation, but not part of the launching process. Therefore, manual hoisting up prior to embarkation may be acceptable for subsequent slewing out.

Paragraph 6.1.2.2 of the LSA Code

For cargo ships not fitted with stored mechanical power in compliance with paragraph 6.1.1.3 of the LSA Code, as amended through resolution MSC.459(101), the manual hoisting from the stowed position and turning out to the embarkation position of the rescue boat does not need to be actuated from a position within the rescue boat.

Launching mechanism is the means to control the launch of the lifeboat or rescue boat after the point of embarkation when all persons assigned have boarded. Therefore, for cargo ships, manual hoisting up of a dedicated rescue boat prior to embarkation may be acceptable for subsequent slewing out by stored mechanical power.

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1694
4 July 2025

UNIFIED INTERPRETATIONS OF SOLAS CHAPTER II-2, AND THE 1994 AND 2000 HSC CODES

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), approved the *Unified interpretations of SOLAS chapter II-2, and the 1994 and 2000 HSC Codes*, prepared by the Sub-Committee on Ship Systems and Equipment, at its eleventh session (24 to 28 February 2025), in order to provide the necessary clarity on how compliance with the requirements to prohibit PFOS will be demonstrated for both new and existing ships, as set out in the annex.

2 Member States are invited to use the annexed unified interpretations as guidance from 1 January 2026 when applying SOLAS regulations II-2/1.2.10 and 10.11.2.2, and regulation 7.9.4 of the 1994 and 2000 HSC Codes, respectively, and to bring them to the attention of all parties concerned.

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ANNEX

**UNIFIED INTERPRETATIONS OF SOLAS CHAPTER II-2,
AND THE 1994 AND 2000 HSC CODES**

SOLAS regulations II-2/1.2.10 and 10.11.2.2, as amended by resolution MSC.532(107), and regulation 7.9.4 of the 1994 and 2000 HSC Codes

1 The phrase "fire-extinguishing media" should include the fire-fighting foams.

2 The phrase "containing perfluorooctane sulfonic acid (PFOS)" should mean present in concentrations of PFOS above 10 mg/kg (0.001% by weight).

3 Verification that "extinguishing media containing perfluorooctane sulfonic acid (PFOS)" are not used or stored on ships should require the Administration or its recognized organization to review the maker's declaration or laboratory test reports for the extinguishing media covered by the SOLAS Convention, which should be provided to the Administration or to its recognized organization by shipyards, repair yards and equipment makers.

4 The declaration issued by the foam maker should contain information about the foam such as, but not limited to: foam type, production period, batch number, reference to type approval/Marine Equipment Directive (MED) Certificate for the foam.

5 For extinguishing media installed before 1 January 2026, where the maker's declaration or laboratory test reports are not available, sampling and testing of the extinguishing media on board should be required to be conducted in accordance with a recognized standard.

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1695
4 July 2025

UNIFIED INTERPRETATION OF THE FSS CODE

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), approved the unified interpretation of paragraph 2.4.2.2 of chapter 9 of the FSS Code, prepared by the Sub-Committee on Ship Systems and Equipment, at its eleventh session (24 to 28 February 2025), in order to clarify acceptable spacings of combined smoke and heat detectors, with a view towards global and uniform implementation, as set out in the annex.

2 Member States are invited to use the annexed unified interpretation as guidance from 1 January 2026 when applying paragraph 2.4.2.2 of chapter 9 of the FSS Code and to bring the unified interpretation to the attention of all parties concerned.

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ANNEX

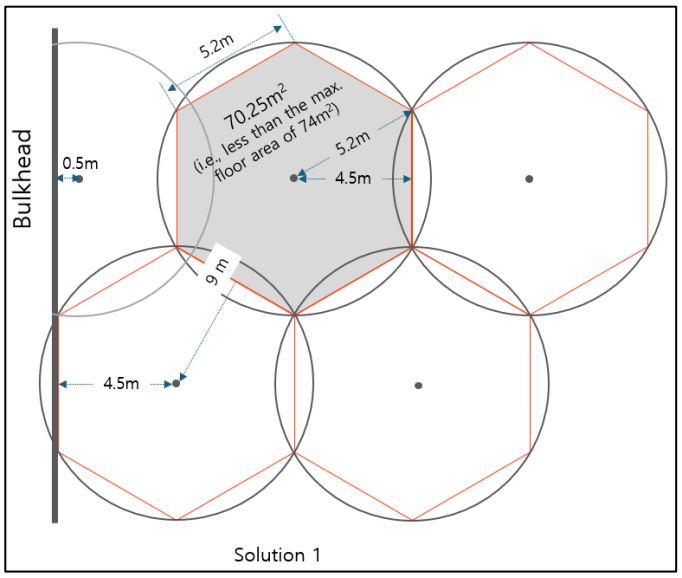
UNIFIED INTERPRETATION OF THE FSS CODE

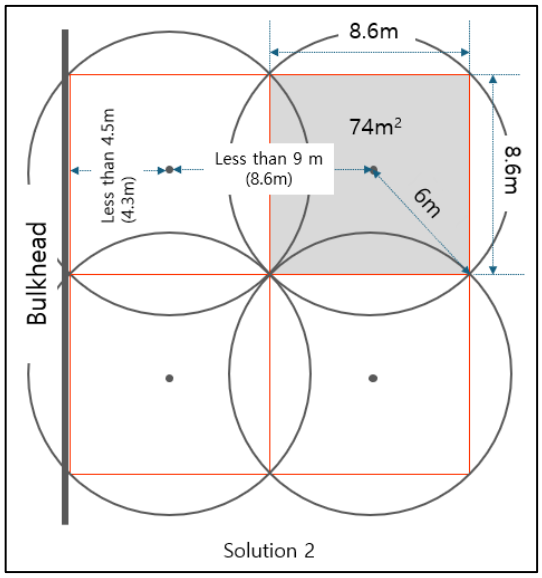
Paragraph 2.4.2.2 of chapter 9 of the FSS Code

In determining the spacing of combined smoke and heat detectors, as required by paragraph 2.4.2.2 of chapter 9 of the FSS Code, the following calculation principles should be acceptable:

.1 determination of the spacing based on the maximum distance of 9 m between detector centres, i.e. using hexagons of 5.2 m one-side length (see solution 1 below); and

.2 determination of the spacing based on the maximum floor area using squares of 74 m^2 (see solution 2 below).





INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1696
28 August 2025

UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/3-13.2.4

1 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025), in order to facilitate uniform documentation of load testing and thorough examination for existing non-certified lifting appliances, approved the unified interpretation of SOLAS regulation II-1/3-13.2.4, prepared by the Sub-Committee on Ship Systems and Equipment, at its eleventh session (24 to 28 February 2025), as set out in the annex.

2 Member States are invited to use the annexed unified interpretation as guidance when applying SOLAS regulation II-1/3-13.2.4 and to bring the unified interpretation to the attention of all parties concerned.

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ANNEX

UNIFIED INTERPRETATION OF SOLAS REGULATION II-1/3-13.2.4

SOLAS regulation II-1/3-13.2 – Design, construction and installation
MSC.1/Circ.1663 *Guidelines for lifting appliances*

1 For existing lifting appliances installed before 1 January 2026 without valid certificates of the test and thorough examination under another international instrument (e.g. ILO Convention concerning Occupational Safety and Health in Dock Work (No. 152)) acceptable to the Administration, compliance with SOLAS regulation II-1/3-13.2.4 could be demonstrated by means of a "factual statement" (also known as a "statement of fact"), issued by the competent person approved by the Administration, or the recognized organization (RO).

2 The factual statement should confirm that the lifting appliance has been subjected to a load test (the value of the test load is to be taken as per table 1 of paragraph 3.2.1.5 of the *Guidelines for lifting appliances* (MSC.1/Circ.1663) and subsequently been thoroughly examined by the competent person approved by the Administration, or an RO, satisfying the requirements in SOLAS regulation II-1/3-13.2.4 only. The criteria against which the load test and thorough examination have been carried out, should be clearly stated in the factual statement. It should further be stated that the factual statement does not confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3. A sample factual statement is provided in the appendix to this unified interpretation.

3 Where, as described in paragraph 3.2.1.6 of the Guidelines (MSC.1/Circ.1663), the safe working load (SWL) has been nominated by the company (see definition SOLAS regulation IX/1), it should be made clear in the factual statement that the competent person approved by the Administration, or an RO, has confirmed that the test load has been calculated based on a SWL nominated by the company, to the satisfaction of the Administration. Further, it should be made clear in the factual statement, that the SWL is not confirmed by the competent person.

4 To avoid misinterpretation of the extent of the confirmation of compliance, the factual statement form should be different from the form used to confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3. The Sample Certificate in appendix 1 of the Guidelines, should not be used also as a factual statement form to confirm compliance with SOLAS regulation II-1/3-13.2.4.

5 In order to document the history of the test and thorough examination and to comply with paragraph 3.2.2.1.1 of the Guidelines, the factual statement may be attached to the form "Register of lifting appliances and cargo handling gear" in appendix 3 of the Guidelines, as long as the factual statement clearly refers to documenting the compliance with SOLAS regulation II-1/3-13.2.4 only.

6 In order to comply with paragraph 3.2.2.1.2 of the Guidelines, the annual thorough examination may be documented (as 12-monthly, with reference to Note 2 (b)) in the form "Register of lifting appliances and cargo handling gear" in appendix 3 of the Guidelines.

APPENDIX*

SAMPLE FORM OF THE FACTUAL STATEMENT OF THE TEST AND THOROUGH EXAMINATION OF NON-CERTIFIED EXISTING LIFTING APPLIANCES INSTALLED BEFORE 1 JANUARY 2026

Factual Statement
of the test and thorough examination of non-certified existing lifting appliances
installed before 1 January 2026

Issued under the provisions of paragraph 3.2.3.2 of the *Guidelines for lifting appliances* (MSC.1/Circ.1663).

(Official seal) Document No.: .....

Name of Ship: .....

IMO Number: .....

Call Sign: .....

Port of Registry: .....

Name of Owner: .....

THIS FACTUAL STATEMENT:

.1 is to confirm that the lifting appliance(s) described herein, has/have been load tested and thoroughly examined and, on examination, found free from defects, as far as could be seen;

.2 may be used to document compliance with SOLAS regulation II-1/3-13.2.4;

.3 does not confirm compliance with SOLAS regulations II-1/3-13.2.1 and 3-13.2.3;

.4 does not confirm the safe working load (SWL) of the lifting appliance(s) nominated by the Company, to the satisfaction of Administration;

.5 is to confirm that the lifting appliance(s) listed below has/have been subjected to a load test followed by thorough examination carried out by a competent person; and

.6 is to confirm that the test load of _____ (tonnes) has been calculated in accordance with paragraphs 3.2.1.5 and 3.2.1.6 of the *Guidelines for lifting appliances* (MSC.1/Circ.1663), based on the safe working load (SWL) of _____ (tonnes) nominated by the Company to the satisfaction of the Administration (attached to this factual statement).

* The sample Factual Statement provided in the appendix represents only a possible form of a factual statement. Other forms can also be used provided that all necessary information is contained.

Situation and description of lifting appliance (with distinguishing number or mark, if any) which has been tested and thoroughly examined	Angle to the horizontal or radius at which test load is applied		Test load (tonnes)
	Angle (degrees)	Radius (metres)	
Lifting appliance A (e.g. description, serial number, etc.)			
Lifting appliance B (e.g. description, serial number, etc.)			

This factual statement is valid until: ..... (dd/mm/yyyy)

Date of load test and thorough examination: ..... (dd/mm/yyyy)

Issued at: ..... (place of issue of the statement)

Date of issue: ..... (dd/mm/yyyy)

Signature of the competent person issuing the factual statement: .....

INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

MSC.1/Circ.1331/Rev.1
28 August 2025

REVISED GUIDELINES FOR CONSTRUCTION, INSTALLATION, MAINTENANCE AND INSPECTION/SURVEY OF MEANS OF EMBARKATION AND DISEMBARKATION

1 The Maritime Safety Committee, at its eighty-sixth session (27 May to 5 June 2009), approved the *Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation* (MSC.1/Circ.1331), prepared by the Sub-Committee on Ship Design and Equipment at its fifty-second session, with a view to providing specific guidance on the construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation such as accommodation ladders and gangways required under SOLAS regulation II-1/3-9.

2 The Maritime Safety Committee, at its 110th session (18 to 27 June 2025) approved amendments to MSC.1/Circ.1331, prepared by the Sub-Committee on Ship Design and Construction, at its eleventh session, as set out in the annex.

3 Member Governments are invited to bring the attached Revised Guidelines to the attention of shipowners, shipbuilders, designers, manufacturers, port State control authorities and other parties concerned in conjunction with SOLAS regulation II-1/3-9 (Means of embarkation on and disembarkation from ships).

4 The present circular supersedes MSC.1/Circ.1331.

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ANNEX

REVISED GUIDELINES FOR CONSTRUCTION, INSTALLATION, MAINTENANCE AND INSPECTION/SURVEY OF MEANS OF EMBARKATION AND DISEMBARKATION

1 APPLICATION AND DEFINITIONS

1.1 This document is intended to provide Guidelines for the construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation required under SOLAS regulation II-1/3-9, adopted by resolution MSC.256(84). Where means of embarkation and disembarkation other than those specifically covered by these Guidelines are fitted, an equivalent level of safety should be provided.

1.2 Unless expressly provided otherwise, the expression "installed on or after 1 July 2026" in these Guidelines means:

(a) for ships for which the building contract is placed on or after 1 July 2026, or in the absence of the contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2026, any installation date on the ship; or

(b) for ships other than those ships prescribed in (a) above, a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery date of the equipment to the ship on or after 1 July 2026.

1.3 For the purpose of these Guidelines, a "safety net" is a net which is rigged between the ship's side and the means of (dis)embarkation to prevent a person from falling into the water or onto the quayside from a means of (dis)embarkation.

2 CONSTRUCTION

2.1 Accommodation ladders and gangways for means of embarkation and disembarkation which are installed before 1 July 2026 on board ships constructed on or after 1 January 2010 should meet applicable international standards such as ISO 5488:1979, *Shipbuilding – Accommodation ladders*, ISO 7061:1993, *Shipbuilding – Aluminium shore gangways for seagoing vessels* and/or national standards and/or other requirements recognized by the Administration.

2.2 Accommodation ladders and gangways for means of embarkation and disembarkation which are installed on ships constructed on or after 1 January 2010, which are installed on or after 1 July 2026, should meet applicable international standards such as ISO 5488:2015, *Ships and marine technology – Accommodation ladders*, ISO 7061:2015 or ISO 7061:2024*, Ships and marine technology – Aluminium shore gangways for seagoing vessels* and/or national standards and/or other requirements recognized by the Administration.

2.3 Accommodation ladders and gangways installed on ships constructed before 1 January 2010, which are installed on or after 1 July 2026, should meet applicable international standards insofar as is reasonable and practicable, such as ISO 5488:1979, *Shipbuilding – Accommodation ladders*, or ISO 5488:2015, *Ships and marine technology – Accommodation ladders*, ISO 7061:1993, ISO 7061:2015 or ISO 7061:2024, *Ships and marine technology – Aluminium shore gangways for seagoing vessels* and/or national standards and/or other requirements recognized by the Administration.

2.4 The construction and test of accommodation ladder winches which are installed before 1 July 2026 on board ships constructed on or after 1 January 2010 should be in accordance with applicable international standards, such as ISO 7364:1983 *Shipbuilding and marine structures – Deck machinery – Accommodation ladder winches.*

2.5 The construction and test of accommodation ladder winches which are installed on or after 1 July 2026 on board ships constructed on or after 1 January 2010 should be in accordance with applicable international standards such as ISO 7364:2016 *Ships and marine technology – Deck machinery – Accommodation ladder winches*.

2.6 The construction and test of accommodation ladder winches installed on ships constructed before 1 January 2010, which are installed on or after 1 July 2026, should be in accordance with applicable international standards insofar as is reasonable and practicable, such as ISO 7364:1983, *Shipbuilding and marine structures – Deck machinery – Accommodation ladder winches*, or ISO 7364:2016 S*hips and marine technology – Deck machinery – Accommodation ladder winches*.

2.7 The structure of the accommodation ladders and gangways and their fittings and attachments should be such as to allow regular inspection, maintenance of all parts and, if necessary, lubrication of their pivot pin. Special care should be taken to ensure that the welding connection works are properly performed.

3 INSTALLATION

3.1 Location

As far as practicable, the means of embarkation and disembarkation should be sited clear of the working area and should not be placed where cargo or other suspended loads may pass overhead.

3.2 Lighting

Adequate lighting should be provided to illuminate the means of embarkation and disembarkation, the position on deck where persons embark or disembark and the controls of the arrangement.

3.3 Lifebuoy

A lifebuoy equipped with a self-igniting light and a buoyant lifeline should be available for immediate use in the vicinity of the embarkation and disembarkation arrangement when in use.

3.4 Arrangement

3.4.1 Each accommodation ladder should be of such a length to ensure that, at a maximum design operating angle of inclination, the lowest platform will be not more than 600 mm above the waterline in the lightest seagoing condition, as defined in SOLAS regulation III/3.13.

3.4.2 The arrangement at the head of the accommodation ladder should provide direct access between the ladder and the ship's deck by a platform securely guarded by handrails and adequate handholds. The ladder should be securely attached to the ship to prevent overturning.

3.4.3 For ships on which the height of the embarkation/disembarkation deck exceeds 20 m above the waterline specified in paragraph 3.4.1 and on other ships for which the Administration considers compliance with the provisions of paragraph 3.4.1 impractical, an alternative means of providing safe access to the ship or supplementary means of safe access to the bottom platform of the accommodation ladder may be accepted.

3.5 Marking

Each accommodation ladder or gangway should be clearly marked at each end with a plate showing the restrictions on the safe operation and loading, including the maximum and minimum permitted design angles of inclination, design load, maximum load on bottom end plate, etc. Where the maximum operational load is less than the design load, it should also be shown on the marking plate.

3.6 Test

3.6.1 After installation, the winch and the accommodation ladder should be operationally tested to confirm proper operation and condition of the winch and the ladder after the test.

3.6.2 The winch should be tested as a part of the complete accommodation ladder unit through a minimum of two times hoisting and lowering of the accommodation ladder in accordance with the onboard test requirement specified in international standards applicable to the winch.

3.6.3 Every new accommodation ladder should be subjected to a static load test of the specified maximum working load upon installation.

3.7 Positioning

3.7.1 Gangways should not be used at an angle of inclination greater than 30° from the horizontal and accommodation ladders should not be used at an angle greater than 55° from the horizontal, unless designed and constructed for use at angles greater than these and marked as such, as required by paragraph 3.5.

3.7.2 Gangways should never be secured to a ship's guardrails unless they have been designed for that purpose. If positioned through an open section of bulwark or railings, any remaining gaps should be adequately fenced.

3.7.3 Adequate lighting for means of embarkation and disembarkation and the immediate approaches should be ensured from the ship and/or the shore in hours of darkness.

3.8 Rigging (safety net)

3.8.1 A safety net should be mounted in way of the accommodation ladders and gangways where it is possible that a person may fall from the means of embarkation and disembarkation or between the ship and quayside.

3.8.2 The safety net in 3.8.1 is not required if the provisions of 3.8.3 and 3.8.4 below are met.

3.8.3 The hazard of a person falling through the sides of the means of (dis)embarkation is adequately mitigated if the top railing is of rigid construction and a side net* has been rigged between this railing and the base of the accommodation ladder, including its upper and lower platforms, or the gangway (see figure 1).

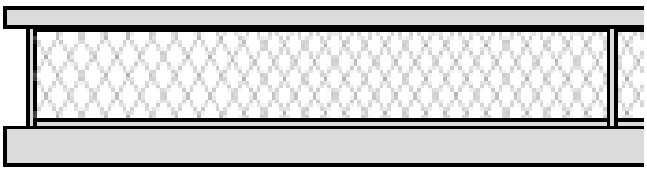

Figure 1: Side net between rigid top railing and base of ladder

3.8.4 The hazard of falling over the rigid top railing is adequately mitigated if this railing is installed in accordance with relevant international standards, at a height of not less than 1,000 mm.

3.9 Verification

Upon installation, the compliance of the entire arrangement with these Guidelines should be verified.

3.10 Protection of crew

When rigging the accommodation ladder, gangway and the safety net, the crew should have sufficient personal safety protection. The crew should wear life jackets and safety harnesses while rigging.

4 MAINTENANCE

4.1 Accommodation ladders and gangways, including associate winch and fittings, should be properly maintained and inspected at appropriate intervals as required by SOLAS regulation III/20.7.2, in accordance with manufacturers' instructions. Additional checks should be made each time the accommodation ladder and gangway is rigged, looking out for signs of distortion, cracks and corrosion. Close examination for possible corrosion should be carried out, especially when an aluminium accommodation ladder/gangway has fittings made of mild steel.

4.2 Bent stanchions should be replaced or repaired and guard ropes should be inspected for wear and renewed where necessary.

4.3 Moving parts should be free to turn and should be greased as appropriate.

4.4 The lifting equipment should be inspected, tested and maintained paying careful attention to the condition of the hoist wire. The wires used to support the means of embarkation and disembarkation should be renewed when necessary, as required by SOLAS regulation II-1/3-9.

* Refer to ISO 9554:2019, Fibre ropes – General specifications or other standards acceptable to the Administration.

4.5 Arrangements should also be made to examine the underside of gangways and accommodation ladders at regular intervals.

4.6 All inspections, maintenance work and repairs of accommodation ladders and gangways should be recorded in order to provide an accurate history for each appliance. The information to be recorded appropriately on board should include the date of the most recent inspection, the name of the person or body who carried out that inspection, the due date for the next inspection and the dates of renewal of wires used to support the embarkation and disembarkation arrangement.

4.7 The safety net and/or side net should be properly stored in ventilated places avoiding sunlight and chemical contamination. The safety net and/or side net should be checked and maintained regularly and replaced if found necessary.

5 EXAMINATION AND OPERATIONAL TEST DURING SURVEYS REQUIRED BY SOLAS REGULATIONS I/7 AND 8

5.1 Accommodation ladders/gangways and davits

5.1.1 *Accommodation ladder*

5.1.1.1 The following items should be thoroughly examined during annual surveys required by SOLAS regulations I/7 and 8 and checked for satisfactory condition of the accommodation ladder:

.1 steps;

.2 platforms;

.3 all support points such as pivots, rollers, etc.;

.4 all suspension points such as lugs, brackets, etc.;

.5 stanchions, safety pins, rigid handrails, hand ropes and turntables,side nets and their securing points;

.6 davit structure, wire and sheaves, etc.; and

.7 any other relevant provisions stated in these Guidelines.

5.1.1.2 At every five-yearly survey, upon completion of the examination required by paragraph 5.1.1.1, the accommodation ladder should be statically tested with the specified maximum working load of the ladder.

5.1.2 *Gangway*

5.1.2.1 The following items should be thoroughly examined during annual surveys required by SOLAS regulations I/7 and 8 and checked for satisfactory condition of the gangway:

.1 treads;

.2 side stringers, cross-members, decking, deck plates, etc.;

.3 all support points such as wheel, roller, etc.;

.4 stanchions, safety pins, rigid handrails, hand ropes; side nets and their securing points; and

.5 any other relevant provisions stated in these Guidelines.

5.1.2.2 At every five-yearly survey, upon completion of the examination required by paragraph 5.1.2.1, the gangway should be statically tested with the specified maximum working load of the gangway.

5.2 Winch

5.2.1 During annual surveys required by SOLAS regulations I/7 and 8, the following items should be examined for satisfactory condition:

.1 brake mechanism including condition of brake pads and band brake, if fitted;

.2 remote control system; and

.3 power supply system (motor).

5.2.2 At every five-yearly survey, upon completion of the examination required by paragraph 5.2.1, the winch should be operationally tested by raising and lowering the unloaded accommodation ladder.

5.3 Tests

5.3.1 The tests specified in sections 5.1 and 5.2 are for the purpose of confirming the proper operation of the accommodation ladder, gangway and/or winch, as appropriate.

5.3.2 The load used for the test should be:

.1 the design load; or

.2 the maximum operational load, if this is less than the design load and marked as per paragraph 3.5; or

.3 the load nominated by the shipowner or operator only in those cases where the design load or maximum operational load is not known (e.g. for accommodation ladders or gangways which are provided on board ships constructed prior to 1 January 2010), in which case that nominated load should be used as the maximum operational load for all purposes within these Guidelines.

5.3.3 The tests should be carried out with the load applied as uniformly as possible along the length of the accommodation ladder or gangway. The ladder or gangway should be in horizontal position, and the accommodation ladder should be suspended by the wire(s) and supported by the winch.

5.3.4 Following satisfactory completion of the applicable test(s) without permanent deformation or damage to the tested item, the load used for that test should be marked as the maximum operational load in accordance with paragraph 3.5.

5.4 Fittings and davits

During annual surveys required by SOLAS regulations I/7 and 8, all fittings and davits on the ship's deck associated with accommodation ladders and gangways should be examined for satisfactory condition.

5.5 Means of access to deck

During annual surveys required by SOLAS regulations I/7 and 8, the fittings or structures for means of access to decks such as handholds in a gateway or bulwark ladder and stanchions should be examined for satisfactory condition.