

SOLAS

AMENDMENTS 2003, 2004 and 2005



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Foreword

The present publication contains amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, and the 1988 Protocol relating thereto, adopted by the Maritime Safety Committee (MSC) of IMO during 2003, 2004 and 2005.

Resolution MSC.142(77) was adopted by the MSC at its seventy-seventh session (May/June 2003) and contains amendments to SOLAS chapter V to include, in particular, new requirements for ships of 500 gross tonnage and above, engaged on international voyages exceeding 48 hours, to provide daily reports to their company for the duration of the voyage, including a new definition of length of a ship relating to navigation bridge visibility.

Resolution MSC.151(78) was adopted by the MSC at its seventy-eighth session (May 2004) and contains amendments to SOLAS chapter II-1 to include, in particular, modifications to the amendments adopted by resolution MSC.134(76), regarding access to and within spaces in the cargo area of oil tankers and bulk carriers constructed on or after 1 January 2005, due to the concerns which might be encountered when implementing the aforementioned requirements relating to the access to the cargo areas on oil tankers and bulk carriers.

Resolution MSC.152(78) was adopted by the MSC at its seventy-eighth session (May 2004) and contains amendments to SOLAS chapter III regarding emergency drills, maintenance, inspection and servicing of life-saving appliances and new requirements for the carriage of immersion suits on cargo ships for each person on board; and to chapter IV dealing with the maintenance requirements for satellite EPIRBs.

Resolution MSC.153(78) was adopted by the MSC at its seventy-eighth session (May 2004) and contains amendments to SOLAS chapter V to guarantee that persons rescued at sea will be provided a place of safety regardless of their nationality, status or the circumstances in which they are found and that, in every case, a place of safety is provided within a reasonable time. The amendments also cover the responsibilities of the Contracting Government responsible for the search and rescue region in which the survivors were recovered, including master's discretion for safe navigation and avoidance of dangerous situations.

Resolution MSC.154(78) was adopted by the MSC at its seventy-eighth session (May 2004) and contains amendments to the Protocol of 1988

relating to the 1974 SOLAS Convention, in particular, amendments to the Cargo Ship Safety Certificate (Form E) in the appendix thereto.

Resolution MSC.170(79) was adopted by the MSC at its seventy-ninth session (December 2004) and contains amendments to SOLAS chapter II-1 relating to the testing of watertight doors and precautions against shock, fire and other hazards; chapter III regarding survival craft and rescue boats for bulk carriers; chapter V dealing with shipboard navigational equipment and voyage data recorders; chapter VII regarding the requirements for chemical tankers; a new revised chapter XII on additional safety measures for bulk carriers; and amendments to the certificates contained in the appendix to the Convention.

Resolution MSC.171(79) was adopted by the MSC at its seventy-ninth session (December 2004) and contains amendments to the certificates for passenger and cargo ships contained in the appendix to the Convention.

Resolution MSC.194(80) was adopted by the MSC at its eightieth session (May 2005) and contains amendments to SOLAS chapter II-1 relating to emergency towing arrangements, installations contained asbestos, new requirements for tankers and bulk carriers and replaced parts A, B and B-1 in their entirety; chapters II-2, VI, IX, XI-1, XI-2 and the appendix to the Convention concerning cross-references to the revised chapter II-1; and chapter XI-1 dealing with company and registered owner identification number.

Subject to the “tacit acceptance” procedure, the above amendments are expected to enter into force on:

- .1 1 July 2006, for the amendments adopted by resolutions MSC.142(77), MSC.152(78), MSC.153(78), MSC.154(78), MSC.170(79) and MSC.171(79);
- .2 1 January 2006, for the amendments adopted by resolution MSC.151(78);
- .3 1 January 2007, for the amendments in annex 1 to resolution MSC.194(80); and
- .4 1 January 2009, for the amendments in annex 2 to resolution MSC.194(80).

Footnotes in this publication have been added for ease of reference. They do not form part of the 1974 SOLAS Convention or the 1988 Protocol relating thereto.

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Resolution MSC.142(77)

(adopted on 5 June 2003)

Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended

THE MARITIME SAFETY COMMITTEE,

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

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

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

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 January 2006, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 July 2006 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

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

Annex

**Amendments to the International Convention for
the Safety of Life at Sea, 1974, as amended**

CHAPTER V
Safety of navigation

Regulation 2

Definitions

1 *The following new paragraph 4 is added after existing paragraph 3:*

“4 *Length of a ship means its length overall.”*

Regulation 22

Navigation bridge visibility

2 *The existing text of introductory paragraph 1 is replaced by the following:*

“1 *Ships of not less than 55 m in length, as defined in regulation 2.4, constructed on or after 1 July 1998, shall meet the following requirements:”*

Regulation 28

Records of navigational activities

3 *The title of the regulation is replaced by the following:*

“Records of navigational activities and daily reporting”

4 *The existing paragraph is numbered as paragraph 1.*

5 *The following new paragraph 2 is added after paragraph 1:*

“2 *Each ship of 500 gross tonnage and above, engaged on international voyages exceeding 48 hours, shall submit a daily report to its company, as defined in regulation IX/1, which shall retain it and all subsequent daily reports for the duration of the voyage. Daily reports may be transmitted by any means, provided that they are transmitted to the company as soon as practicable after determination of the position named in the report. Auto-*

mated reporting systems may be used, provided that they include a recording function of their transmission and that those functions and interfaces with position-fixing equipment are subjected to regular verification by the ship's master. The report shall contain the following:

- .1 ship's position;
- .2 ship's course and speed; and
- .3 details of any external or internal conditions that are affecting the ship's voyage or the normal safe operation of the ship."

Resolution MSC.151(78)
(adopted on 20 May 2004)

**Adoption of amendments to the International
Convention for the Safety of Life at Sea, 1974,
as amended**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”), concerning the amendment procedure applicable to the Annex to the Convention, other than to the provisions of chapter I thereof,

NOTING SOLAS regulation II-1/3-6 concerning access to and within spaces in the cargo area of oil tankers of 500 gross tonnage and over and bulk carriers of 20,000 gross tonnage and over, adopted by resolution MSC.134(76), which is applicable to oil tankers and bulk carriers constructed on or after 1 January 2005,

ACKNOWLEDGING concerns expressed with regard to problems which might be encountered when implementing the requirements of the aforementioned SOLAS regulation II-1/3-6,

HAVING CONSIDERED, at its seventy-eighth session, amendments to SOLAS regulation II-1/3-6, 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 regulation II-1/3-6 of 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 2005, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world’s merchant fleet, have notified their objections to the amendments;

3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2006 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention;
6. RESOLVES that SOLAS Contracting Governments may apply, in advance, the annexed SOLAS regulation II-1/3-6 adopted by this resolution together with the amendments to the Technical provisions for means of access for inspections adopted by resolution MSC.158(78) in lieu of SOLAS regulation II-1/3-6 adopted by resolution MSC.134(76) and the Technical provisions for means of access for inspections adopted by resolution MSC.133(76) to ships flying their flag constructed on or after 1 January 2005.

Annex

**Amendments to the International Convention for
the Safety of Life at Sea, 1974, as amended**

CHAPTER II-1

*Construction – Structure, subdivision and stability,
machinery and electrical installations*

Part A-1
Structure of ships

Regulation 3-6

*Access to and within spaces in the cargo area
of oil tankers and bulk carriers*

1 *The title of the regulation is replaced by the following:*

*“Access to and within spaces in, and forward of,
the cargo area of oil tankers and bulk carriers”*

2 *In paragraph 1.1, the date “1 January 2005” is replaced with
“1 January 2006”.*

3 *In paragraph 2.1, in the first sentence, the words “within the cargo
area” and “a permanent” are deleted.*

4 *In paragraph 3.1, in the second sentence, the words “or to forward
ballast tanks” are inserted between the words “bottom spaces” and “may be
from a pump-room”.*

5 *In paragraph 4.1, in the second sentence, the words “in the cargo
area” are deleted.*

Resolution MSC.152(78)
(adopted on 20 May 2004)

**Adoption of amendments to the International
Convention for the Safety of Life at Sea, 1974,
as amended**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”), concerning the amendment procedure applicable to the Annex to the Convention, other than the provisions of chapter I thereof,

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

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 January 2006, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world’s merchant fleet have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 July 2006 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

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

Annex

Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended

CHAPTER III *Life-saving appliances and arrangements*

Regulation 19

Emergency training and drills

1 *The existing text of paragraph 3.3.3 is replaced by the following:*

“3.3.3 Except as provided in paragraphs 3.3.4 and 3.3.5, each lifeboat shall be launched, and manoeuvred in the water by its assigned operating crew, at least once every three months during an abandon ship drill.”

Regulation 20

Operational readiness, maintenance and inspections

2 *In paragraph 1, in the second sentence, the words “paragraphs 3 and 6.2” are replaced by the words “paragraphs 3.2, 3.3 and 6.2”.*

3 *The existing text of paragraph 3 is replaced by the following:*

“3 Maintenance

3.1 Maintenance, testing and inspections of life-saving appliances shall be carried out based on the guidelines developed by the Organization* and in a manner having due regard to ensuring reliability of such appliances.

3.2 Instructions for on-board maintenance of life-saving appliances complying with regulation 36 shall be provided and maintenance shall be carried out accordingly.

3.3 The Administration may accept, in compliance with the requirements of paragraph 3.2, a shipboard planned maintenance programme, which includes the requirements of regulation 36.

* Refer to the Measures to prevent accidents with lifeboats (MSC.1/Circ.1206).”

4 *The existing text of paragraph 6 is replaced by the following:*

“6 Weekly inspection

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

- .1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use. The inspection shall include, but is not limited to, the condition of hooks, their attachment to the lifeboat and the on-load release gear being properly and completely reset;
- .2 all engines in lifeboats and rescue boats shall be run for a total period of not less than 3 minutes, provided the ambient temperature is above the minimum temperature required for starting and running the engine. During this period of time, it should be demonstrated that the gearbox and gearbox train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow it to be run other than with its propeller submerged for a period of 3 minutes, it should be run for such a period as prescribed in the manufacturer's handbook. In special cases, the Administration may waive this requirement for ships constructed before 1 July 1986;
- .3 lifeboats, except free-fall lifeboats, on cargo ships shall be moved from their stowed position, without any persons on board, to the extent necessary to demonstrate satisfactory operation of launching appliances, if weather and sea conditions so allow; and
- .4 the general emergency alarm shall be tested.”

5 *In paragraph 7, the existing text is numbered as paragraph 7.2 and the following new paragraph 7.1 is added:*

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

6 *The existing text of paragraph 11 is replaced by the following:*

**“11 Periodic servicing of launching appliances
and on-load release gear**

11.1 Launching appliances shall be:

- .1 maintained in accordance with instructions for on-board maintenance as required by regulation 36;
- .2 subjected to a thorough examination at the annual surveys required by regulations I/7 or I/8, as applicable; and

- .3 upon completion of the examination referred to in .2 subjected to a dynamic test of the winch brake at maximum lowering speed. The load to be applied shall be the mass of the lifeboat without persons on board, except that, at intervals not exceeding five years, the test shall be carried out with a proof load of 1.1 times the maximum working load of the winch.

11.2 Lifeboat on-load release gear shall be:

- .1 maintained in accordance with instructions for on-board maintenance as required by regulation 36;
- .2 subjected to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8 by properly trained personnel familiar with the system; and
- .3 operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment whenever the release gear is overhauled. Such over-hauling and test shall be carried out at least once every five years.*

* Refer to the Recommendation on testing of life-saving appliances, adopted by the Organization by resolution A.689(17). For life-saving appliances installed on board on or after 1 July 1999, refer to the Revised Recommendations on testing of life-saving appliances, adopted by the Organization by resolution MSC.81(70), as amended."

Regulation 32

Personal life-saving appliances

7 *The existing text of paragraph 3 is replaced by the following:*

"3 Immersion suits

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

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

3.3 If a ship has any watch or work stations which are located remotely from the place or places where immersion suits are normally stowed, additional immersion suits shall be provided at these locations for the number of persons normally on watch or working at those locations at any time.

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

3.5 The immersion suits required by this regulation may be used to comply with the requirements of regulation 7.3.

* Refer to the Guidelines for assessment of thermal protection (MSC/Circ.1046)."

CHAPTER IV

Radiocommunications

Regulation 15

Maintenance requirements

8 *The existing text of paragraph 9 is replaced by the following:*

"9 Satellite EPIRBs shall be:

- .1** annually tested for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals as specified below:
 - .1.1** on passenger ships, within 3 months before the expiry date of the Passenger Ship Safety Certificate; and
 - .1.2** on cargo ships, within 3 months before the expiry date, or 3 months before or after the anniversary date, of the Cargo Ship Safety Radio Certificate.

The test may be conducted on board the ship or at an approved testing station; and

- .2** subject to maintenance at intervals not exceeding five years, to be performed at an approved shore-based maintenance facility."

APPENDIX

Certificates

Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E)

9 *In section 2, item 9 is deleted and items 10, 10.1 and 10.2 are renumbered as items 9, 9.1 and 9.2 respectively.*

Resolution MSC.153(78)
(adopted on 20 May 2004)

**Adoption of amendments to the International
Convention for the Safety of Life at Sea, 1974,
as amended**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”) concerning the amendment procedure applicable to the Annex to the Convention, other than the provisions of chapter I thereof,

NOTING resolution A.920(22) entitled “Review of safety measures and procedures for the treatment of persons rescued at sea”,

RECALLING ALSO the provisions of the Convention relating to the obligation of:

- shipmasters to proceed with all speed to the assistance of persons in distress at sea; and
- Contracting Governments to ensure arrangements for coast watching and for the rescue of persons in distress at sea round their coasts,

NOTING ALSO article 98 of the United Nations Convention on the Law of the Sea, 1982, regarding the duty to render assistance,

NOTING FURTHER the initiative taken by the Secretary-General to involve competent United Nations specialized agencies and programmes in the consideration of the issues addressed in this resolution, for the purpose of agreeing on a common approach which will resolve them in an efficient and consistent manner,

REALIZING the need for clarification of existing procedures to guarantee that persons rescued at sea will be provided a place of safety regardless of their nationality, status or the circumstances in which they are found,

REALIZING FURTHER that the intent of the new paragraph 1-1 of SOLAS regulation V/33, as adopted by this resolution, is to ensure that in every

case a place of safety is provided within a reasonable time. It is further intended that the responsibility to provide a place of safety, or to ensure that a place of safety is provided, falls on the Contracting Government responsible for the search and rescue region in which the survivors were recovered,

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

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 January 2006, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 July 2006 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention;
6. ALSO REQUESTS the Secretary General to take appropriate action in further pursuing his inter-agency initiative, informing the Maritime Safety Committee of developments, in particular with respect to procedures to assist in the provision of places of safety for persons in distress at sea, for action as the Committee may deem appropriate.

Annex

Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended

CHAPTER V *Safety of navigation*

Regulation 2

Definitions

1 *The following new paragraph 5 is added after the existing paragraph 4:*

“**5** *Search and rescue service.* The performance of distress monitoring, communication, co-ordination and search and rescue functions, including provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources including co-operating aircraft, ships, vessels and other craft and installations.”

Regulation 33

Distress messages: obligations and procedure

2 *The title of the regulation is replaced by the following:*

“*Distress situations: obligations and procedures*”

3 *In paragraph 1, the words “a signal” in the first sentence are replaced by the word “information”, and the following sentence is added after the first sentence of the paragraph:*

“This obligation to provide assistance applies regardless of the nationality or status of such persons or the circumstances in which they are found.”

4 *The following new paragraph 1-1 is inserted after the existing paragraph 1:*

“**1-1** Contracting Governments shall co-ordinate and co-operate to ensure that masters of ships providing assistance by embarking persons in distress at sea are released from their obligations with minimum further deviation from the ships’ intended voyage, provided that releasing the master of the ship from the obligations under the current regulation does not further endanger the safety of life at sea. The Contracting Government responsible for the

search and rescue region in which such assistance is rendered shall exercise primary responsibility for ensuring such co-ordination and co-operation occurs, so that survivors assisted are disembarked from the assisting ship and delivered to a place of safety, taking into account the particular circumstances of the case and guidelines developed by the Organization.* In these cases the relevant Contracting Governments shall arrange for such disembarkation to be effected as soon as reasonably practicable.

* Refer to the Guidelines on the treatment of persons rescued at sea, adopted by the Maritime Safety Committee of the Organization by resolution MSC.167(78)."

5 *The following new paragraph 6 is added after the existing paragraph 5:*

"6 Masters of ships who have embarked persons in distress at sea shall treat them with humanity, within the capabilities and limitations of the ship."

Regulation 34

Safe navigation and avoidance of dangerous situations

6 *The existing paragraph 3 is deleted.*

7 *The following new regulation 34-1 is added after the existing regulation 34:*

"Regulation 34-1

Master's discretion

The owner, the charterer, the company operating the ship as defined in regulation IX/1, or any other person shall not prevent or restrict the master of the ship from taking or executing any decision which, in the master's professional judgement, is necessary for safety of life at sea and protection of the marine environment."

Resolution MSC.154(78)
(adopted on 20 May 2004)

**Adoption of amendments to the Protocol of 1988
relating to the International Convention for the
Safety of Life at Sea, 1974**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”) and article VI of the Protocol of 1988 relating to the Convention (hereinafter referred to as “the 1988 SOLAS Protocol”) concerning the procedure for amending the 1988 SOLAS Protocol,

HAVING CONSIDERED, at its seventy-eighth session, amendments to the 1988 SOLAS Protocol proposed and circulated in accordance with article VIII(b)(i) of the Convention and article VI of the 1988 SOLAS Protocol,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention and article VI of the 1988 SOLAS Protocol, amendments to the appendix to the Annex to the 1988 SOLAS Protocol, 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 and article VI of the 1988 SOLAS Protocol, that the said amendments shall be deemed to have been accepted on 1 January 2006, unless, prior to that date, more than one third of the Parties to the 1988 SOLAS Protocol or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world’s merchant fleet have notified their objections to the amendments;
3. INVITES the Parties concerned to note that, in accordance with article VIII(b)(vii)(2) of the Convention and article VI of the 1988 SOLAS Protocol, the amendments shall enter into force on 1 July 2006, upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention and article VI of the 1988 SOLAS Protocol, to transmit

certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the 1988 SOLAS Protocol;

5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to the 1988 SOLAS Protocol.

Annex

**Amendments to the Protocol of 1988
relating to the International Convention
for the Safety of Life at Sea, 1974**

APPENDIX

*Modifications and additions to the appendix
to the Annex to the International Convention
for the Safety of Life at Sea, 1974*

*Record of Equipment for the Cargo Ship Safety Equipment Certificate
(Form E)*

1 *In section 2, item 9 is deleted and items 10, 10.1 and 10.2 are
renumbered as items 9, 9.1 and 9.2 respectively.*

Record of Equipment for the Cargo Ship Safety Certificate (Form C)

2 *In section 2, item 9 is deleted and items 10, 10.1 and 10.2 are
renumbered as items 9, 9.1 and 9.2 respectively.*

Resolution MSC.170(79)
(adopted on 9 December 2004)

**Amendments to the International Convention for
the Safety of Life at Sea, 1974, as amended**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”), concerning the amendment procedure applicable to the Annex to the Convention, other than the provisions of chapter I thereof,

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

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 January 2006, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world’s merchant fleet have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 July 2006 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

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

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Annex

**Amendments to the International Convention for
the Safety of Life at Sea, 1974, as amended**

CHAPTER II-1

*Construction – Structure, subdivision and stability,
machinery and electrical installations*

Regulation 2

Definitions

1 *The following new paragraph 14 is added after existing paragraph 13:*

“14 *Bulk carrier* means a bulk carrier as defined in regulation XII/1.1.”

Regulation 18

*Construction and initial tests of watertight doors,
sidescuttles, etc., in passenger ships and cargo ships*

2 *Paragraph 2 of the regulation is replaced by the following:*

“2 In passenger ships and cargo ships watertight doors shall be tested by water pressure to a head up to the bulkhead deck or freeboard deck respectively. Where testing of individual doors is not carried out because of possible damage to insulation or outfitting items, testing of individual doors may be replaced by a prototype pressure test of each type and size of door with a test pressure corresponding at least to the head required for the intended location. The prototype test shall be carried out before the door is fitted. The installation method and procedure for fitting the door on board shall correspond to that of the prototype test. When fitted on board, each door shall be checked for proper seating between the bulkhead, the frame and the door.”

Regulation 45

Precautions against shock, fire and other hazards of electrical origin

3 *After the heading the following words are added:*

“(Paragraphs 10 and 11 of this regulation apply to ships constructed on or after 1 January 2007)”.

4 *Existing paragraph 10 is replaced by the following:*

“10 No electrical equipment shall be installed in any space where flammable mixtures are liable to collect, e.g. in compartments assigned principally to accumulator batteries, in paint lockers, acetylene stores or similar spaces, unless the Administration is satisfied that such equipment is:

- .1 essential for operational purposes;
- .2 of a type which will not ignite the mixture concerned;
- .3 appropriate to the space concerned; and
- .4 appropriately certified for safe usage in the dusts, vapours or gases likely to be encountered.”

5 *The following new paragraph 11 is added after paragraph 10, as amended:*

“11 In tankers, electrical equipment, cables and wiring shall not be installed in hazardous locations unless it conforms with standards not inferior to those acceptable to the Organization.* However, for locations not covered by such standards, electrical equipment, cables and wiring which do not conform to the standards may be installed in hazardous locations based on a risk assessment to the satisfaction of the Administration, to ensure that an equivalent level of safety is assured.

* Refer to the standards published by the International Electrotechnical Commission, IEC 60092-502:1999 ‘Electrical installations in ships – Tankers’.”

6 *Existing paragraph 11 is renumbered as paragraph 12.*

CHAPTER III

Life-saving appliances and arrangements

Regulation 31

Survival craft and rescue boats

7 *The following new paragraph 1.8 is added after existing paragraph 1.7:*

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

CHAPTER V

Safety of navigation

Regulation 19

Carriage requirements for shipborne navigational systems and equipment

8 *In paragraph 2.5, the existing text of subparagraph .1 is replaced by the following:*

“**.1** a gyro-compass, or other means, to determine and display their heading by shipborne non-magnetic means, being clearly readable by the helmsman at the main steering position. These means shall also transmit heading information for input to the equipment referred in paragraphs 2.3.2, 2.4 and 2.5.5;”

Regulation 20

Voyage data recorders

9 *The following new paragraph 2 is added after existing paragraph 1:*

“**2** To assist in casualty investigations, cargo ships, when engaged on international voyages, shall be fitted with a VDR which may be a simplified voyage data recorder (S-VDR)* as follows:

.1 in the case of cargo ships of 20,000 gross tonnage and upwards constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2006 but not later than 1 July 2009;

- .2** in the case of cargo ships of 3,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2002, at the first scheduled dry-docking after 1 July 2007 but not later than 1 July 2010; and
- .3** Administrations may exempt cargo ships from the application of the requirements of subparagraphs .1 and .2 when such ships will be taken permanently out of service within two years after the implementation date specified in subparagraphs .1 and .2 above.

* Refer to resolution MSC.163(78) – Performance standards for shipborne simplified voyage data recorders (S-VDRs), as amended by resolution MSC.214(81)."

10 *Existing paragraph 2 is renumbered as paragraph 3.*

CHAPTER VII

Carriage of dangerous goods

Regulation 10

Requirements for chemical tankers

11 *The following sentence is deleted from paragraph 1 of the regulation:*

"For the purpose of this regulation, the requirements of the Code shall be treated as mandatory."

CHAPTER XII

Additional safety measures for bulk carriers

12 *The existing text of chapter XII is replaced by the following:*

“Regulation 1

Definitions

For the purpose of this chapter:

- 1** *Bulk carrier* means a ship which is intended primarily to carry dry cargo in bulk, including such types as ore carriers and combination carriers.*
- 2** *Bulk carrier of single-side skin construction* means a bulk carrier as defined in paragraph 1, in which:
 - .1** any part of a cargo hold is bounded by the side shell; or
 - .2** one or more cargo holds are bounded by a double-side skin, the width of which is less than 760 mm in bulk carriers constructed before 1 January 2000 and less than 1,000 mm in bulk carriers constructed on or after 1 January 2000 but before 1 July 2006, the distance being measured perpendicular to the side shell.

Such ships include combination carriers in which any part of a cargo hold is bounded by the side shell.

- 3** *Bulk carrier of double-side skin construction* means a bulk carrier as defined in paragraph 1, in which all cargo holds are bounded by a double-side skin, other than as defined in paragraph 2.2.
- 4** *Double-side skin* means a configuration where each ship side is constructed by the side shell and a longitudinal bulkhead connecting the double bottom and the deck. Hopper side tanks and top-side tanks may, where fitted, be integral parts of the double-side skin configuration.

* Reference is made to:

- .1 For ships constructed before 1 July 2006, resolution 6, Interpretation of the definition of “bulk carrier”, as given in chapter IX of SOLAS 1974, as amended in 1994, adopted by the 1997 SOLAS Conference.
- .2 The Interpretation of the provisions of SOLAS chapter XII on Additional safety measures for bulk carriers, adopted by the Maritime Safety Committee of the Organization by resolution MSC.79(70).
- .3 The application provisions of annex 1 to the Interpretation of the provisions of SOLAS chapter XII on Additional safety measures for bulk carriers, adopted by the Maritime Safety Committee of the Organization by resolution MSC.89(71).

5 *Length* of a bulk carrier means the length as defined in the International Convention on Load Lines in force.

6 *Solid bulk cargo* means any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is loaded directly into the cargo spaces of a ship without any intermediate form of containment.

7 *Bulk carrier bulkhead and double bottom strength standards* means “Standards for the evaluation of scantlings of the transverse watertight vertically corrugated bulkhead between the two foremost cargo holds and for the evaluation of allowable hold loading of the foremost cargo hold” adopted by resolution 4 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974 on 27 November 1997, 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.

8 *Bulk carriers constructed* means bulk carriers the keels of which are laid or which are at a similar stage of construction.

9 *A similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tonnes or one per cent of the estimated mass of all structural material, whichever is less.

10 *Breadth (B)* of a bulk carrier means the breadth as defined in the International Convention on Load Lines in force.

Regulation 2

Application

Bulk carriers shall comply with the requirements of this chapter in addition to the applicable requirements of other chapters.

Regulation 3

Implementation schedule

Bulk carriers constructed before 1 July 1999 to which regulations 4 or 6 apply shall comply with the provisions of such regulations according to the following schedule, with reference to the enhanced programme of inspections required by regulation XI-1/2:

- .1 bulk carriers which are 20 years of age and over on 1 July 1999, by the date of the first intermediate survey or the first periodical survey after 1 July 1999, whichever comes first;

- .2 bulk carriers which are 15 years of age and over but less than 20 years of age on 1 July 1999, by the date of the first periodical survey after 1 July 1999, but not later than 1 July 2002; and
- .3 bulk carriers which are less than 15 years of age on 1 July 1999, by the date of the first periodical survey after the date on which the ship reaches 15 years of age, but not later than the date on which the ship reaches 17 years of age.

Regulation 4

Damage stability requirements applicable to bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, designed to carry solid bulk cargoes having a density of $1,000 \text{ kg/m}^3$ and above, constructed on or after 1 July 1999, shall, when loaded to the Summer Load Line, be able to withstand flooding of any one cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4.

2 Bulk carriers of 150 m in length and upwards of double-side skin construction in which any part of longitudinal bulkhead is located within $B/5$ or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned Summer Load Line, designed to carry solid bulk cargoes having a density of $1,000 \text{ kg/m}^3$ and above, constructed on or after 1 July 2006, shall, when loaded to the Summer Load Line, be able to withstand flooding of any one cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4.

3 Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying solid bulk cargoes having a density of $1,780 \text{ kg/m}^3$ and above, constructed before 1 July 1999, shall, when loaded to the Summer Load Line, be able to withstand flooding of the foremost cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium, as specified in paragraph 4. This requirement shall be complied with in accordance with the implementation schedule specified in regulation 3.

4 Subject to the provisions of paragraph 7, the condition of equilibrium after flooding shall satisfy the condition of equilibrium laid down in the annex to resolution A.320(IX) – Regulation equivalent to regulation 27 of the International Convention on Load Lines, 1966, as amended by resolution A.514(13). The assumed flooding need only take into account flooding of the cargo hold space to the water level outside the ship in that flooded condition. The permeability of a loaded hold shall be assumed as 0.9 and the permeability of an empty hold shall be assumed as 0.95, unless a permeability relevant to a particular cargo is assumed for the volume of a flooded hold occupied by cargo and a permeability of 0.95 is assumed for the remaining empty volume of the hold.

5 Bulk carriers constructed before 1 July 1999, which have been assigned a reduced freeboard in compliance with regulation 27(7) of the International Convention on Load Lines, 1966, as adopted on 5 April 1966, may be considered as complying with paragraph 3 of this regulation.

6 Bulk carriers which have been assigned a reduced freeboard in compliance with the provisions of paragraph (8) of the regulation equivalent to regulation 27 of the International Convention on Load Lines, 1966, adopted by resolution A.320(IX), as amended by resolution A.514(13), may be considered as complying with paragraphs 1 or 2, as appropriate.

7 On bulk carriers which have been assigned reduced freeboard in compliance with the provisions of regulation 27(8) of Annex B of the Protocol of 1988 relating to the International Convention on Load Lines, 1966, the condition of equilibrium after flooding shall satisfy the relevant provisions of that Protocol.

Regulation 5

Structural strength of bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, designed to carry solid bulk cargoes having a density of 1,000 kg/m³ and above, constructed on or after 1 July 1999, shall have sufficient strength to withstand flooding of any one cargo hold to the water level outside the ship in that flooded condition in all loading and ballast conditions, taking also into account dynamic effects resulting from the presence of water in the hold, and taking into account the recommendations adopted by the Organization.*

2 Bulk carriers of 150 m in length and upwards of double-side skin construction, in which any part of longitudinal bulkhead is located within $B/5$ or 11.5 m, whichever is less, inboard from the ship's side at right angle to the centreline at the assigned Summer Load Line, designed to carry bulk cargoes having a density of 1,000 kg/m³ and above, constructed on or after 1 July 2006, shall comply with the structural strength provisions of paragraph 1.

Regulation 6

Structural and other requirements for bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, carrying solid bulk cargoes having a density of 1,780 kg/m³ and above, constructed before 1 July 1999, shall comply with the following

* Refer to resolution 3, Recommendation on compliance with SOLAS regulation XII/5, adopted by the 1997 SOLAS Conference.

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- .2.3** Where the inner and/or outer skins are transversely framed, the minimum clearance between the inner surfaces of the frames shall not be less than 600 mm.
- .2.4** Where the inner and outer skins are longitudinally framed, the minimum clearance between the inner surfaces of the frames shall not be less than 800 mm. Outside the parallel part of the cargo hold length this clearance may be reduced where necessitated by the structural configuration, but shall in no case be less than 600 mm.
- .2.5** The minimum clearance referred to above shall be the shortest distance measured between assumed lines connecting the inner surfaces of the frames on the inner and outer skins.

3 Double-side skin spaces and dedicated seawater ballast tanks arranged in bulk carriers of 150 m in length and upwards constructed on or after 1 July 2006 shall be coated in accordance with the requirements of regulation II-1/3-2 and also based on the Performance standards for coatings* to be adopted by the Organization.

4 The double-side skin spaces, with the exception of top-side wing tanks, if fitted, shall not be used for the carriage of cargo.

5 In bulk carriers of 150 m in length and upwards, carrying solid bulk cargoes having a density of 1,000 kg/m³ and above, constructed on or after 1 July 2006:

- .1** the structure of cargo holds shall be such that all contemplated cargoes can be loaded and discharged by standard loading/discharge equipment and procedures without damage which may compromise the safety of the structure;
- .2** effective continuity between the side shell structure and the rest of the hull structure shall be assured; and
- .3** the structure of cargo areas shall be such that single failure of one stiffening structural member will not lead to immediate consequential failure of other structural items potentially leading to the collapse of the entire stiffened panels.

Regulation 7

Survey and maintenance of bulk carriers

1 Bulk carriers of 150 m in length and upwards of single-side skin construction, constructed before 1 July 1999, of 10 years of age and over,

* Refer to the standards acceptable to the Administration until such time that Performance standards for coatings, to be adopted by the Organization, will be made mandatory by suitably modifying the above requirements.

shall not carry solid bulk cargoes having a density of $1,780 \text{ kg/m}^3$ and above unless they have satisfactorily undergone either:

- .1 a periodical survey, in accordance with the enhanced programme of inspections during surveys required by regulation XI-1/2; or
- .2 a survey of all cargo holds to the same extent as required for periodical surveys in the enhanced programme of inspections during surveys required by regulation XI-1/2.

2 Bulk carriers shall comply with the maintenance requirements provided in regulation II-1/3-1 and the Standards for owners' inspection and maintenance of bulk carrier hatch covers, adopted by the Organization by resolution MSC.169(79), 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.

Regulation 8

Information on compliance with requirements for bulk carriers

- 1** The booklet required by regulation VI/7.2 shall be endorsed by the Administration, or on its behalf, to indicate that regulations 4, 5, 6 and 7, as appropriate, are complied with.
- 2** Any restrictions imposed on the carriage of solid bulk cargoes having a density of $1,780 \text{ kg/m}^3$ and above in accordance with the requirements of regulations 6 and 14 shall be identified and recorded in the booklet referred to in paragraph 1.
- 3** A bulk carrier to which paragraph 2 applies shall be permanently marked on the side shell at midships, port and starboard, with a solid equilateral triangle, having sides of 500 mm and its apex 300 mm below the deck line, and painted a contrasting colour to that of the hull.

Regulation 9

Requirements for bulk carriers not being capable of complying with regulation 4.3 due to the design configuration of their cargo holds

For bulk carriers constructed before 1 July 1999 being within the application limits of regulation 4.3, which have been constructed with an insufficient number of transverse watertight bulkheads to satisfy that regulation, the Administration may allow relaxation from the application of

regulations 4.3 and 6, on condition that they shall comply with the following requirements:

- .1 for the foremost cargo hold, the inspections prescribed for the annual survey in the enhanced programme of inspections during surveys required by regulation XI-1/2 shall be replaced by the inspections prescribed therein for the intermediate survey of cargo holds;
- .2 they are provided with bilge well high water level alarms in all cargo holds, or in cargo conveyor tunnels, as appropriate, giving an audible and visual alarm on the navigation bridge, as approved by the Administration or an organization recognized by it in accordance with the provisions of regulation XI-1/1; and
- .3 they are provided with detailed information on specific cargo hold flooding scenarios. This information shall be accompanied by detailed instructions on evacuation preparedness under the provisions of section 8 of the International Safety Management (ISM) Code and be used as the basis for crew training and drills.

Regulation 10

Solid bulk cargo density declaration

1 Prior to loading bulk cargo on bulk carriers of 150 m in length and upwards, the shipper shall declare the density of the cargo, in addition to providing the cargo information required by regulation VI/2.

2 For bulk carriers to which regulation 6 applies, unless such bulk carriers comply with all relevant requirements of this chapter applicable to the carriage of solid bulk cargoes having a density of $1,780 \text{ kg/m}^3$ and above, any cargo declared to have a density within the range $1,250 \text{ kg/m}^3$ to $1,780 \text{ kg/m}^3$ shall have its density verified by an accredited testing organization.*

Regulation 11

Loading instrument

(Unless provided otherwise, this regulation applies to bulk carriers regardless of their date of construction)

1 Bulk carriers of 150 m in length and upwards shall be fitted with a loading instrument capable of providing information on hull girder shear forces and bending moments, taking into account the recommendation adopted by the Organization.†

* In verifying the density of solid bulk cargoes, reference should be made to the Uniform method of measurement of the density of bulk cargoes (MSC/Circ.908).

† Refer to the Recommendation on loading instruments, adopted by resolution 5 of the 1997 SOLAS Conference.

2 Bulk carriers of 150 m in length and upwards constructed before 1 July 1999 shall comply with the requirements of paragraph 1 not later than the date of the first intermediate or periodical survey of the ship to be carried out after 1 July 1999.

3 Bulk carriers of less than 150 m in length constructed on or after 1 July 2006 shall be fitted with a loading instrument capable of providing information on the ship's stability in the intact condition. The computer software shall be approved for stability calculations by the Administration and shall be provided with standard conditions for testing purposes relating to the approved stability information.*

Regulation 12

Hold, ballast and dry space water ingress alarms

(This regulation applies to bulk carriers regardless of their date of construction)

1 Bulk carriers shall be fitted with water level detectors:

- .1** in each cargo hold, giving audible and visual alarms, one when the water level above the inner bottom in any hold reaches a height of 0.5 m and another at a height not less than 15% of the depth of the cargo hold but not more than 2 m. On bulk carriers to which regulation 9.2 applies, detectors with only the latter alarm need be installed. The water level detectors shall be fitted in the aft end of the cargo holds. For cargo holds which are used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different water levels detected in each hold;
- .2** in any ballast tank forward of the collision bulkhead required by regulation II-1/11, giving an audible and visual alarm when the liquid in the tank reaches a level not exceeding 10% of the tank capacity. An alarm overriding device may be installed to be activated when the tank is in use; and
- .3** in any dry or void space other than a chain cable locker, any part of which extends forward of the foremost cargo hold, giving an audible and visual alarm at a water level of 0.1 m above the deck. Such alarms need not be provided in enclosed spaces the volume of which does not exceed 0.1% of the ship's maximum displacement volume.

2 The audible and visual alarms specified in paragraph 1 shall be located on the navigation bridge.

* Refer to the relevant parts of the appendix to the Guidelines for the on-board use and application of computers (MSC/Circ.891).