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INTERNATIONAL MARITIME ORGANIZATION

INTERNATIONAL CONVENTION
FOR THE
SAFETY OF LIFE AT SEA

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1988/1989/1990 *AMENDMENTS*

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Resolution MSC.11(55)

(adopted on 21 April 1988)

**Adoption of amendments to the International
Convention for the Safety of Life at Sea**

1974

concerning Passenger ro-ro ferries

THE MARITIME SAFETY COMMITTEE,

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

NOTING resolution A. 596 (15) by which the Assembly resolved that the Organization give a high priority to its work aimed at enhancing the safety of passenger ro-ro ferries,

NOTING FURTHER that the Assembly requested the Committee to take all possible action to meet objective, including the earliest possible consideration and adoption of amendments to the 1974 SOLAS Convention relating to passenger ro-ro ferries and the facilitation of a rapid entry into force of these amendments,

HAVING CONSIDERED at its fifty-fifth session amendments to the 1974 SOLAS Convention proposed

by the United Kingdom and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS in accordance with article VIII(b)(iv) of the Convention the amendments to the Convention, the text of which is set out in the Annex to the present resolution,

2. DETERMINES in accordance with article VIII(b)(vi)(2)(bb) of the Convention that the amendments shall be deemed to have been accepted on 21 April 1989 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 per cent of the gross tonnage of the world's merchant fleet have notified their objections to the amendments,

3. INVITES Contracting Governments to note that in accordance with article VIII(b)(vii)(2) of the Convention the amendments shall enter into force on 22 October 1989 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 International Convention for the Safety of Life at Sea, 1974,

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

6. URGES that, pending the entry into force of the amendments, Member Governments encourage ship-owners voluntarily to fit on their ships the equipment required by the amendments,

7. RESOLVES that ships constructed before 22 October 1989 which are already fitted with indicators approved by the Administration which may be different from those indicators required by regulation II-1/23-2.1 should not be required to change their systems.

Annex

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

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1 Chapter II-1, Regulation 23-2

The following new regulation 23-2 is added after existing regulation 23:

"Regulation 23-2

*Integrity of the hull and superstructure,
damage prevention and control*

(This regulation applies to all passenger ships with ro-ro cargo spaces or special category spaces as defined in regulation II-2/3, except that for ships constructed before 22 October 1989, paragraph 2 shall apply not later than 22 October 1992)

1 Indicators shall be provided on the navigating bridge for all shell doors, loading doors and other closing appliances which, if left open or not properly

secured could, in the opinion of the Administration, lead to major flooding of a special category space or ro-ro cargo space. The indicator system* shall be designed on the fail safe principle and shall show if the door is not fully closed or not secured. The power supply for the indicator system shall be independent of the power supply for operating and securing the doors.

2 Means shall be arranged, such as television surveillance or a water leakage detection system, to provide an indication to the navigating bridge of any leakage through bow doors, stern doors or any other cargo or vehicle loading doors which could lead to major flooding of special category spaces or ro-ro cargo spaces.

3 Special category spaces and ro-ro cargo spaces shall either be patrolled or monitored by effective means, such as television surveillance, so that movement of vehicles in adverse weather and unauthorized access by passengers can be observed whilst the ship is underway. "

*Reference is made to resolution MSC.11 (55) by Which the Maritime Safety Committee resolved that ships constructed 22 October 1989 which are already fitted with indicators approved by the Administration, which may be different from those required by this regulation, should not be required to change systems.

2 Chapter II-1, Regulation 42-1

The following new regulation 42-1 is added after existing regulation 42:

"Regulation 42-1

*Supplementary emergency lighting
for ro-ro passenger ships*

(This regulation applies to all passenger ships with ro-ro cargo spaces or special category spaces as defined in regulation II-2/3, except that for ships constructed before 22 October 1989, this regulation shall apply not later than 22 October 1990.)

In addition to the emergency lighting required by regulation 42.2, on every passenger ship with ro-ro cargo spaces or special category spaces as defined in regulation II-2/3,

- .1 all passenger public spaces and alleyways shall be provided with supplementary electric lighting that can operate for at least three hours when all other sources of electric power have failed and under any condition of heel. The illumination provided shall be such that the approach to the means of escape can be readily seen. The source of power

for the supplementary lighting shall consist of accumulator batteries located within the lighting units that are continuously charged, where practicable, from the emergency switchboard. Alternatively, any other means of lighting which is at least as effective may be accepted by the Administration. The supplementary lighting shall be such that any failure of the lamp will be immediately apparent. Any accumulator battery provided shall be replaced at intervals having regard to the specified service life in the ambient conditions that they are subject to in service, and

- .2 a portable rechargeable battery operated lamp shall be provided in every crew space alleyway, recreational space and every working space which is normally occupied unless supplementary emergency lighting, as required by subparagraph .1, is provided. "

Resolution MSC.12(56)

(adopted on 28 October 1988)

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

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER that by resolution A. 596(15) the Assembly resolved that the Organization give a high priority to its work aimed at enhancing the safety of passenger ro-ro ferries,

NOTING that the Assembly requested the Committee to take all possible action to meet this objective, including the earliest possible consideration and adoption of amendments to the 1974 SOLAS Convention relating to passenger ro-ro ferries and the facilitation of a rapid entry into force of these amendments,

NOTING FURTHER that at its fifty-fifth session the first set of amendments to the 1974 SOLAS Convention relating to passenger ro-ro ferries proposed

by the United Kingdom (package 1) was adopted in accordance with article VIII(b)(iv) of the Convention by resolution MSC.11(55) and further that the Committee agreed to consider with a view to their adoption, at its fifty-sixth session, proposed amendments to that Convention relating residual damage stability for passenger ships developed by the Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety,

HAVING CONSIDERED a second of amendments (package 2) to the 1974 SOLAS Convention, proposed by the United Kingdom, and proposed amendments relating to standards of residual damage stability for passenger ships which were circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS in accordance with article VIII(b)(iv) of the Convention the amendments to the Convention, the text of which is set out in the Annex to the present resolution;

2. DETERMINES in accordance with article VIII(b)(vi)(2)(bb) of the Convention that the amendments shall be deemed to have been accepted on 28 October 1989 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 per cent of the gross tonnage of the world's merchant fleet have

notified their objections to the amendments;

3. INVITES Contracting Governments to note that in accordance with article VIII(b)(vii)(2) of the Convention the amendments shall enter into force on 29 April 1990 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 International Convention for the Safety of Life at Sea, 1974;

5. FURTHER REQUESTS the Secretary-General to transmit copies of the resolution 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

1 Chapter II-1 - Regulation 8

Stability of passenger ships in damaged condition

The following text is inserted after the title:

"(Paragraphs 2.3, 2.4, 5 and 6.2 apply to passenger ships constructed on or after 29 April 1990 and paragraphs 7.2, 7.3 and 7.4 apply to all passenger ships)" .

The existing text of paragraph 2.3 is replaced by the following:

"2.3 The stability required in the final condition after damage, and after equalization where provided, shall be determined as follows:

2.3.1 The positive residual righting lever curve shall have a minimum range of 15° beyond the angle of equilibrium.

2.3.2 The area under righting lever curve shall be at

least 0.015 m-rad, measured from the angle of equilibrium to the lesser of,

- . 1 the angle at which progressive flooding occurs;
- . 2 22°(measured from the upright) in the case of one-compartment flooding, or
27°(measured from the upright) in the case of the simultaneous flooding of two or more adjacent compartments.

2.3.3 A residual righting lever is to be obtained within the range specified in 2.3.1, taking into account the greatest of the following heeling moments,

- . 1 the crowding of all passengers towards one side;
- . 2 the launching of all fully loaded davit-launched survival craft on one side;
- . 3 due to wind pressure,
as calculated by the formula;

$$GZ(\text{in metres}) = \frac{\text{heeling moment}}{\text{displacement}} + 0.04$$

However, in no case is this righting lever to be less than 0.10 m.

2.3.4 For the purpose of calculating the heeling moments in paragraph 2.3.3, the following assumptions shall be made,

- .1 Moments due to crowding of passengers;
 - .1.1 4 persons per square metre;
 - .1.2 a mass of 75 kg for each passenger;
 - .1.3 passengers shall be distributed on available deck areas towards one side of the ship on the decks where muster stations are located and in such a way that they produce the most adverse heeling moment.
- .2 Moments due to launching of all fully loaded davit-launched survival craft on one side;
 - .2.1 all lifeboats and rescue boats fitted on the side to which the ship has heeled after having sustained damage shall be assumed to be swung out fully loaded and ready for lowering;
 - .2.2 for lifeboats which are arranged to be launched fully loaded from the stowed position, the maximum heeling moment during launching shall be taken;
 - .2.3 a fully loaded davit-launched liferaft attached to each davit on the side to which the ship has heeled after having sustained damage shall be assumed to be swung out ready for lowering;
 - .2.4 persons not in the life-saving appliances which are swung out shall not provide either additional heeling or righting moment;

.2.5 life-saving appliances on the side of the ship opposite to the side to which the ship has heeled shall be assumed to be in a stowed position.

.3 Moments due to wind pressure;

.3.1 a wind pressure of 120 N/m^2 to be applied;

.3.2 the area applicable shall be the projected lateral area of the ship above the waterline corresponding to the intact condition;

.3.3 the moment arm shall be the vertical distance from a point at one half of the mean draught corresponding to the intact condition to the centre of gravity of the lateral area".

The following new paragraph 2.4 is added after the existing paragraph 2.3:

"2.4 In intermediate stages of flooding, the maximum righting lever shall be at least 0.05 m and the range of positive righting levers shall be at least 7° . In all cases, only one breach in the hull and only one free surface need be assumed".

In the third sentence of paragraph 5 the phrase "as well as the maximum heel before equalization" is deleted.

The following new sentence is added after the third sentence of paragraph 5: