

ANNEX 2

**RESOLUTION MSC.392(95)
(adopted on 11 June 2015)**

**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 ALSO article VIII(b)(vi)(2) 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 ninety-fifth 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 July 2016, 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 to the Secretary-General 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 2017 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; and

5 REQUESTS ALSO 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 II-1
CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY,
MACHINERY AND ELECTRICAL INSTALLATIONS**

**Part A
General**

Regulation 2 – Definitions

- 1 The following new paragraphs 29 and 30 are added after the existing paragraph 28:

"29 *IGF Code* means the International Code of safety for ships using gases or other low-flashpoint fuels as adopted by the Maritime Safety Committee of the Organization by resolution MSC.391(95), 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.

30 *Low-flashpoint fuel* means gaseous or liquid fuel having a flashpoint lower than otherwise permitted under regulation II-2/4.2.1.1."

**Part F
Alternative design and arrangements**

Regulation 55 – Alternative design and arrangements

- 2 The existing paragraphs 1 to 3 are replaced with the following:

"1 Purpose

The purpose of this regulation is to provide a methodology for alternative design and arrangements for machinery, electrical installations and low-flashpoint fuel storage and distribution systems.

2 General

2.1 Machinery, electrical installation and low-flashpoint fuel storage and distribution systems design and arrangements may deviate from the requirements set out in parts C, D, E or G, provided that the alternative design and arrangements meet the intent of the requirements concerned and provide an equivalent level of safety to this chapter.

2.2 When alternative design or arrangements deviate from the prescriptive requirements of parts C, D, E or G, an engineering analysis, evaluation and approval of the design and arrangements shall be carried out in accordance with this regulation.

3 Engineering analysis

The engineering analysis shall be prepared and submitted to the Administration, based on the guidelines developed by the Organization* and shall include, as a minimum, the following elements:

- .1 determination of the ship type, machinery, electrical installations, low-flashpoint fuel storage and distribution systems and space(s) concerned;
- .2 identification of the prescriptive requirement(s) with which the machinery, electrical installations and low-flashpoint fuel storage and distribution systems will not comply;
- .3 identification of the reason the proposed design will not meet the prescriptive requirements supported by compliance with other recognized engineering or industry standards;
- .4 determination of the performance criteria for the ship, machinery, electrical installation, low-flashpoint fuel storage and distribution system or the space(s) concerned addressed by the relevant prescriptive requirement(s):
 - .1 performance criteria shall provide a level of safety not inferior to the relevant prescriptive requirements contained in parts C, D, E or G; and
 - .2 performance criteria shall be quantifiable and measurable;
- .5 detailed description of the alternative design and arrangements, including a list of the assumptions used in the design and any proposed operational restrictions or conditions;
- .6 technical justification demonstrating that the alternative design and arrangements meet the safety performance criteria; and
- .7 risk assessment based on identification of the potential faults and hazards associated with the proposal.

* Refer to the *Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III* (MSC.1/Circ.1212) and the *Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments* (MSC.1/Circ.1455)."

- 3 The new part G is added after the existing part F as follows:

**"Part G
Ships using low-flashpoint fuels**

Regulation 56 – Application

1 Except as provided for in paragraphs 4 and 5, this part shall apply to ships using low-flashpoint fuels:

- .1 for which the building contract is placed on or after 1 January 2017;
- .2 in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2017;
or
- .3 the delivery of which is on or after 1 January 2021.

Such ships using low-flashpoint fuels shall comply with the requirements of this part in addition to any other applicable requirements of the present regulations.

2 Except as provided for in paragraphs 4 and 5, a ship, irrespective of the date of construction, including one constructed before 1 January 2009, which converts to using low-flashpoint fuels on or after 1 January 2017 shall be treated as a ship using low-flashpoint fuels on the date on which such conversion commenced.

3 Except as provided for in paragraphs 4 and 5, a ship using low-flashpoint fuels, irrespective of the date of construction, including one constructed before 1 January 2009, which, on or after 1 January 2017, undertakes to use low-flashpoint fuels different from those which it was originally approved to use before 1 January 2017 shall be treated as a ship using low-flashpoint fuels on the date on which such undertaking commenced.

4 This part shall not apply to gas carriers, as defined in regulation VII/11.2:

- .1 using their cargoes as fuel and complying with the requirements of the IGC Code, as defined in regulation VII/11.1; or
- .2 using other low-flashpoint gaseous fuels provided that the fuel storage and distribution systems design and arrangements for such gaseous fuels comply with the requirements of the IGC Code for gas as a cargo.

5 This part shall not apply to ships owned or operated by a Contracting Government and used, for the time being, only in Government non-commercial service. However, ships owned or operated by a Contracting Government and used, for the time being, only in Government non-commercial service are encouraged to act in a manner consistent, so far as reasonable and practicable, with this part.

Regulation 57 – Requirements for ships using low-flashpoint fuels

Except as provided in regulations 56.4 and 56.5, ships using low-flashpoint fuels shall comply with the requirements of the IGF Code."

**CHAPTER II-2
CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION
AND FIRE EXTINCTION**

**Part B
Prevention of fire and explosion**

Regulation 4 – Probability of ignition

- 4 In paragraph 2.1.3.4, the word "and" is deleted.
- 5 In paragraph 2.1, the existing subparagraph .4 is replaced with the following:
- ".4 in cargo ships, to which part G of chapter II-1 is not applicable, the use of oil fuel having a lower flashpoint than otherwise specified in paragraph 2.1.1, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the Administration of the complete installation; and
- .5 in ships, to which part G of chapter II-1 is applicable, the use of oil fuel having a lower flashpoint than otherwise specified in paragraph 2.1.1 is permitted."
- 6 At the end of existing paragraph 5.3.2.2, the following sentence is added:
- "For tankers constructed on or after 1 January 2017, any isolation shall also continue to permit the passage of large volumes of vapour, air or inert gas mixtures during cargo loading and ballasting, or during discharging in accordance with regulation 11.6.1.2."

**Part C
Suppression of fire**

Regulation 11 – Structural integrity

- 7 At the end of existing paragraph 6.2, the following sentence is added:
- "For tankers constructed on or after 1 January 2017, the openings shall be arranged in accordance with regulation 4.5.3.4.1."
- 8 In paragraph 6.3.2, the following text is added between the first and the second sentences:
- "In addition, for tankers constructed on or after 1 January 2017, the secondary means shall be capable of preventing over-pressure or under-pressure in the event of damage to, or inadvertent closing of, the means of isolation required in regulation 4.5.3.2.2."

Part G

Special requirements

Regulation 20 – Protection of vehicle, special category and ro-ro spaces

9 The existing paragraph 3.1.2 is replaced with the following:

"3.1.2 Performance of ventilation systems

3.1.2.1 In passenger ships, the power ventilation system shall be separate from other ventilation systems. The power ventilation system shall be operated to give at least the number of air changes required in paragraph 3.1.1 at all times when vehicles are in such spaces, except where an air quality control system in accordance with paragraph 3.1.2.4 is provided. Ventilation ducts serving such cargo spaces capable of being effectively sealed shall be separated for each such space. The system shall be capable of being controlled from a position outside such spaces.

3.1.2.2 In cargo ships, the ventilation fans shall normally be run continuously and give at least the number of air changes required in paragraph 3.1.1 whenever vehicles are on board, except where an air quality control system in accordance with paragraph 3.1.2.4 is provided. Where this is impracticable, they shall be operated for a limited period daily as weather permits and in any case for a reasonable period prior to discharge, after which period the ro-ro or vehicle space shall be proved gas-free. One or more portable combustible gas detecting instruments shall be carried for this purpose. The system shall be entirely separate from other ventilation systems. Ventilation ducts serving ro-ro or vehicle spaces shall be capable of being effectively sealed for each cargo space. The system shall be capable of being controlled from a position outside such spaces.

3.1.2.3 The ventilation system shall be such as to prevent air stratification and the formation of air pockets.

3.1.2.4 For all ships, where an air quality control system is provided based on the guidelines developed by the Organization,* the ventilation system may be operated at a decreased number of air changes and/or a decreased amount of ventilation. This relaxation does not apply to spaces to which at least ten air changes per hour is required by paragraph 3.2.2 of this regulation and spaces subject to regulations 19.3.4.1 and 20-1.

* Refer to the *Revised design guidelines and operational recommendations for ventilation systems in ro-ro cargo spaces* (MSC/Circ.1515)."

APPENDIX

CERTIFICATES

FORM OF SAFETY CERTIFICATE FOR PASSENGER SHIPS

PASSENGER SHIP SAFETY CERTIFICATE

- 10 The following new paragraph 2.2 is added after the existing paragraph 2.1:
- "2.2 the ship complied with part G of chapter II-1 of the Convention using
as fuel/N.A.¹"
- 11 The existing paragraphs 2.2 to 2.11 are renumbered accordingly.

FORM OF SAFETY CONSTRUCTION CERTIFICATE FOR CARGO SHIPS

CARGO SHIP SAFETY CONSTRUCTION CERTIFICATE

- 12 The existing paragraph 2 is replaced with the following:
- "2. That the survey showed that:
- .1 the condition of the structure, machinery and equipment as defined in the above regulation was satisfactory and the ship complied with the relevant requirements of chapters II-1 and II-2 of the Convention (other than those relating to fire safety systems and appliances and fire control plans); and
- .2 the ship complied with part G of chapter II-1 of the Convention using as fuel/N.A.⁴."
