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**MERCHANT SHIPPING ACT
(CHAPTER 179)**

**MERCHANT SHIPPING
(SAFETY CONVENTION) (AMENDMENT NO. 2)
REGULATIONS 2016**

In exercise of the powers conferred by section 100 of the Merchant Shipping Act, the Maritime and Port Authority of Singapore, with the approval of the Minister for Transport, makes the following Regulations:

Citation and commencement

1. These Regulations are the Merchant Shipping (Safety Convention) (Amendment No. 2) Regulations 2016 and come into operation on 1 January 2017.

Amendment of Regulation 2 of Chapter II-1

2. Regulation 2 of Chapter II-1 of the Merchant Shipping (Safety Convention) Regulations (Rg 11) (called in these Regulations the principal Regulations) is amended by deleting the full-stop at the end of paragraph (*ab*) and substituting a semi-colon, and by inserting immediately thereafter the following paragraphs:

“(ac) “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 to the Convention other than Chapter I;

(ad) “Low-flashpoint fuel” means gaseous or liquid fuel having a flashpoint lower than permitted under Regulation 4(b)(i)(1) of Chapter II-2.”.

Amendment of Regulation 55 of Chapter II-1

3. Regulation 55 of Chapter II-1 of the principal Regulations is amended by deleting paragraphs (a), (b) and (c) and substituting the following paragraphs:

“(a) *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.

(b) *General*

- (i) Machinery, electrical installation and low-flashpoint fuel storage and distribution systems design and arrangements may deviate from the requirements set out in Part 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.
- (ii) When any alternative design or arrangement deviates from the prescriptive requirements of Part C, D, E or G, an engineering analysis, evaluation and approval of the design and arrangement must be carried out in accordance with this Regulation.

(c) *Engineering analysis*

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

- (i) determination of the ship type, machinery, electrical installations, low-flashpoint fuel storage and distribution systems, and spaces concerned;
- (ii) identification of the prescriptive requirements with which the machinery, electrical installations and low-flashpoint fuel storage and distribution systems will not comply;
- (iii) identification of the reason why the proposed design will not meet the prescriptive requirements supported by compliance with other recognised engineering or industry standards;
- (iv) determination of the performance criteria for the ship, machinery, electrical installation, low-flashpoint fuel storage and distribution system or the spaces concerned addressed by the relevant prescriptive requirements:
 - (1) the performance criteria must provide a level of safety not inferior to the relevant prescriptive requirements contained in Part C, D, E or G; and
 - (2) the performance criteria must be quantifiable and measurable;
- (v) 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;
- (vi) technical justification demonstrating that the alternative design and arrangements meet the safety performance criteria; and

- (vii) 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).”.

New Part G of Chapter II-1

4. Chapter II-1 of the principal Regulations is amended by inserting, immediately after Regulation 55, the following Part:

“PART G — SHIPS USING LOW-FLASHPOINT FUELS

Regulation 56

Application

(a) Except as provided for in paragraphs (d) and (e), this Part applies to any ship using low-flashpoint fuels —

- (i) for which the building contract is placed on or after 1 January 2017;
- (ii) 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
- (iii) the delivery of which is on or after 1 January 2021.

Every such ship using low-flashpoint fuels must comply with the requirements of this Part in addition to any other applicable requirements of these Regulations.

(b) Except as provided for in paragraphs (d) and (e), 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 must be treated as a ship using low-flashpoint fuels on the date on which such conversion commenced.

(c) Except as provided for in paragraphs (d) and (e), 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 must be treated as a ship using low-flashpoint fuels on the date on which such undertaking commenced.

(d) This Part does not apply to gas carriers, as defined in Regulation 11(b) of Chapter VII —

- (i) using their cargoes as fuel and complying with the requirements of the IGC Code, as defined in Regulation 11(a) of Chapter VII; or
- (ii) 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.

(e) This Part does 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 Regulation 56(d) and (e), ships using low-flashpoint fuels must comply with the requirements of the IGF Code.”.