
First published in the *Government Gazette*, Electronic Edition, on 18th November 2011 at 5.00 pm.

No. S 622

MERCHANT SHIPPING ACT
(CHAPTER 179)

MERCHANT SHIPPING
(SAFETY CONVENTION) (AMENDMENT)
REGULATIONS 2011

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, hereby makes the following Regulations:

Citation and commencement

1. These Regulations may be cited as the Merchant Shipping (Safety Convention) (Amendment) Regulations 2011 and shall come into operation on 1st January 2012.

Amendment of Regulation 2 of Chapter II-1

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

“(ab) “Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers” means the International Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers, adopted by the Maritime Safety Committee by resolution MSC.287(87), and any amendment thereto which has come into force and has been accepted by the Government.”.

New Regulations 3-10 and 3-11 of Chapter II-1

3. Chapter II-1 of the principal Regulations is amended by inserting, immediately after Regulation 3-9, the following Regulations:

“Regulation 3-10

*Goal-based Ship Construction Standards for
Bulk Carriers and Oil Tankers*

(a) This Regulation shall apply to oil tankers of 150 m in length and above and to bulk carriers of 150 m in length and above, constructed with single deck, top-side tanks and hopper side tanks in cargo spaces, excluding ore carriers and combination carriers:

- (i) for which the building contract is placed on or after 1st July 2016;
- (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 1st July 2017; or
- (iii) the delivery of which is on or after 1st July 2020.

(b) Ships shall be designed and constructed for a specified design life to be safe and environmentally friendly, when properly operated and maintained under the specified operating and environmental conditions, in intact and specified damage conditions, throughout their life.

- (i) *Safe and environmentally friendly* means the ship shall have adequate strength, integrity and stability to minimise the risk of loss of the ship or pollution to the marine environment due to structural failure, including collapse, resulting in flooding or loss of watertight integrity.
- (ii) *Environmentally friendly* also includes the ship being constructed of materials for environmentally acceptable recycling.
- (iii) *Safety* also includes the ship’s structure, fittings and arrangements providing for safe access, escape, inspection and proper maintenance and facilitating safe operation.
- (iv) *Specified operating and environmental conditions* are defined by the intended operating area for the ship throughout its life and cover the conditions, including intermediate conditions, arising from cargo and ballast operations in port, waterways and at sea.

(v) *Specified design life* is the nominal period that the ship is assumed to be exposed to operating and/or environmental conditions and/or the corrosive environment and is used for selecting appropriate ship design parameters. However, the ship's actual service life may be longer or shorter depending on the actual operating conditions and maintenance of the ship throughout its life cycle.

(c) The requirements of paragraphs (b) to (b)(v) shall be achieved through satisfying applicable structural requirements of an organisation which is recognized by the Director in accordance with the provisions of Regulation 1 of Chapter XI-1, conforming to the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers.

(d) A Ship Construction File with specific information on how the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers have been applied in the ship design and construction shall be provided upon delivery of a new ship, and kept on board the ship and ashore* and updated as appropriate throughout the ship's service. The contents of the Ship Construction File shall, at least, conform to the guidelines developed by the Organisation*.

* Refer to the Guidelines for the information to be included in a Ship Construction File (MSC.1/Circ.1343).

Regulation 3-11

Corrosion Protection of Cargo Oil Tanks of Crude Oil Tankers

(a) Paragraph (c) shall apply to crude oil tankers*, as defined in regulation 1 of Annex I to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, of 5,000 tonnes deadweight and above —

- (i) for which the building contract is placed on or after 1st January 2013; or
- (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 1st July 2013; or
- (iii) the delivery of which is on or after 1st January 2016.

(b) Paragraph (c) shall not apply to combination carriers or chemical tankers as defined in regulations 1 of Annexes I and II, respectively, to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto. For the purpose of this Regulation, chemical tankers also include chemical tankers certified to carry oil.

(c) All cargo oil tanks of crude oil tankers shall be —

- (i) coated during the construction of the ship in accordance with the Performance Standard for Protective Coatings for Cargo Oil Tanks of Crude Oil Tankers, adopted by the Maritime Safety Committee by Resolution MSC.288(87), and any amendment thereto which has come into force and has been accepted by the Government; or
- (ii) protected by alternative means of corrosion protection or utilization of corrosion resistance material to maintain required structural integrity for 25 years in accordance with the Performance Standard for Alternative Means of Corrosion Protection for Cargo Oil Tanks of Crude Oil Tankers, adopted by the Maritime Safety Committee by Resolution MSC.289(87), and any amendment thereto which has come into force and has been accepted by the Government.

(d) The Director may exempt a crude oil tanker from the requirements of paragraph (c) to allow the use of novel prototype alternatives to the coating system specified in paragraph (c)(i), for testing, provided they are subject to suitable controls, regular assessment and acknowledgement of the need for immediate remedial action if the system fails or is shown to be failing. Such exemption shall be recorded on an exemption certificate.

(e) The Director may exempt a crude oil tanker from the requirements of paragraph (c) if the ship is built to be engaged solely in the carriage of cargoes and cargo handling operations not causing corrosion**. Such exemption and conditions for which it is granted shall be recorded on an exemption certificate.

* Refer to items 1.11.1 or 1.11.4 of the Supplement to the International Oil Pollution Prevention Certificate (Form B).

** Refer to the guidelines to be developed by the Organisation.”.

Amendment of Regulation 1 of Chapter II-2

4. Regulation 1 of Chapter II-2 of the principal Regulations is amended —

- (a) by deleting the word “and” at the end of paragraph (b)(ii)(5); and
- (b) by deleting the full-stop at the end of sub-paragraph (6) of paragraph (b)(ii) and substituting the word “; and”, and by inserting immediately thereafter the following sub-paragraph:
“(7) paragraph (e)(vii)(1) of Regulation 4.”.

Amendment of Regulation 4 of Chapter II-2

5. Regulation 4 of Chapter II-2 of the principal Regulations is amended by deleting sub-paragraph (vii) of paragraph (e) and substituting the following sub-paragraph:

“(vii) Gas measurement and detection

(1) Portable instrument

Tankers shall be equipped with at least one portable instrument for measuring oxygen and one for measuring flammable vapour concentrations, together with a sufficient set of spares. Suitable means shall be provided for the calibration of such instruments.

(2) Arrangements for gas measurement in double-hull spaces and double-bottom spaces

(A) Suitable portable instruments for measuring oxygen and flammable vapour concentrations in double-hull spaces and double-bottom spaces shall be provided. In selecting these instruments, due attention shall be given to their use in combination with the fixed gas sampling line systems referred to in paragraph (e)(vii)(2)(B).

(B) Where the atmosphere in double-hull spaces cannot be reliably measured using flexible gas sampling hoses, such spaces shall be fitted with permanent gas sampling lines. The configuration of gas sampling lines shall be adapted to the design of such spaces.

-
-
- (C) The materials of construction and dimensions of gas sampling lines shall be such as to prevent restriction. Where plastic materials are used, they shall be electrically conductive.
- (3) Arrangements for fixed hydrocarbon gas detection systems in double-hull and double-bottom spaces of oil tankers
- (A) In addition to the requirements in paragraphs (e)(vii)(1) and (e)(vii)(2), oil tankers of 20,000 tonnes deadweight and above, constructed on or after 1st January 2012, shall be provided with a fixed hydrocarbon gas detection system complying with the Fire Safety Systems Code for measuring hydrocarbon gas concentrations in all ballast tanks and void spaces of double-hull and double-bottom spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces under the bulkhead deck adjacent to cargo tanks.
- (B) Oil tankers provided with constant operative inerting systems for such spaces need not be equipped with fixed hydrocarbon gas detection equipment.
- (C) Notwithstanding the above, cargo pump-rooms subject to the provisions of paragraph (e)(x) need not comply with the requirements of this paragraph.”.

*[G.N. Nos. S 287/1999; S 40/2000; S 511/2000; S 533/2001; S 314/2002;
S 613/2002; S 645/2003; S 217/2004; S 697/2005; S 282/2006;
S 691/2006; S 339/2008; S 686/2008; S 286/2009; S 664/2009;
S 366/2010; S 793/2010]*

Made this 11th day of November 2011.

LUCIEN WONG

Chairman,

Maritime and Port Authority of Singapore.