

January 2017

Loss Prevention

Regulation Update 2016

Introduction

The increase in the volume of maritime legislation and its complexity makes it essential for members to keep up to date with new regulations and amendments. The purpose of this update is to give a general overview of existing maritime legislation, which is or will be subject to amendment, and of the new regulations that have been introduced since our *last article on this topic*.

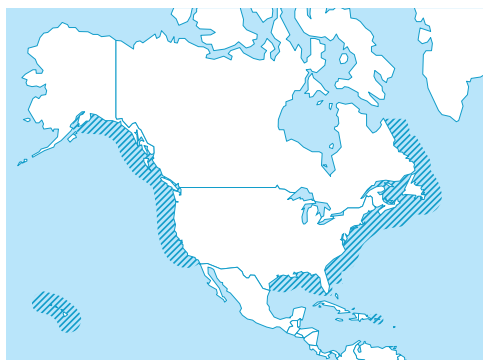
Regulations that came into force on 1 January 2016

MARPOL Annex VI revision – **MEPC.176 (58) – NO_x certificates for diesel engines (≥130 kW), according to Tier III, if operating in ECAs**

The IMO NO_x Tier III requirements entered into force in the North American and US Caribbean Emission Control Areas (ECAs) on 1 January 2016. Tier III is not a retroactive requirement; hence, it will not be applicable to existing engine installations.

Members are advised that ships (keel laid on or after 1 January 2016) with diesel engines (output of 130kW and above) must comply with IMO MARPOL Annex VI regulation 13 and the NO_x Technical Code 2008, when operating in NO_x ECAs. An Engine International Air Pollution Prevention Certificate (EIAPP certificate) issued by recognised organisations on behalf of the respective flag is required for each engine to prove compliance.

North American and US Caribbean Emission Control Areas



SOLAS revisions – **MSC.365 (93) – Fixed Inert Gas Systems/Ventilation System Arrangements/Steering Gear Tests/Container Ship Fire Extinguishing Systems/Escape from Machinery Space/Vehicle and Ro-Ro Spaces Fire Protection**

Amendments to the following SOLAS regulations entered into force on 1 January 2016:

- **Regulations II-2/1, II-2/3, II-2/4, II-2/9.7 and II-2/16.3.3** which introduce mandatory requirements for ventilation systems on board new ships and for fixed inert gas systems on board new oil and chemical tankers of 8,000dwt and above. The existing clause in SOLAS Regulation II-2/4.5.5.2 for waiving the requirements for a fixed inert gas system still applies to all gas carriers, but for chemical tankers, it now only applies to those constructed before 1 January 2016. This means that chemical tankers constructed (keel laid) on or after 1 January 2016 and carrying flammable cargoes, such as those listed in the IBC Code chapters 17 and 18, will be required to have a fixed inert gas system, regardless of cargo tank size and tank washing machine capacities.
- **Regulation II-1/29** on steering gear requires all ships (irrespective of date of construction) that cannot be ballasted during sea trials, so that they are on even keel and their rudder is fully submerged, to demonstrate compliance with requirements for main and emergency steering gear using alternative methods.
- **Regulation II-2/10** applying to new ships (designed to carry containers on or above the weather deck) requires (in addition to the required fixed fire-extinguishing systems and appliances) carriage of at least one water mist lance (consisting of a tube with a piercing nozzle which is capable of penetrating a container wall and producing water mist inside the container when connected to the fire main) and mobile water monitors (dependent on the number of tiers of containers and the ship's breadth)
- **Regulation II-2/13.4** improves the means of escape in the machinery spaces on cargo



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ships and brings them into line with existing arrangements for passenger ships. The amendments require two means of escape from the main workshops/control room within the machinery space, with at least one of these escape routes providing a continuous fire shelter to a safe position outside the machinery space. All inclined ladders and stairways fitted with open treads in machinery spaces that are part of or provide access to escape routes, but are not located within a protected enclosure, will have to be fitted with steel shields attached to their undersides.

- **Regulation II-2/20-1** is a new addition that provides safety measures for new vehicle carriers in addition to regulation 20. It basically adds new requirements for electrical equipment and wiring, and for ventilation arrangements, if the cargo spaces are intended for the transport of motor vehicles with compressed hydrogen or natural gas in their tanks for their own propulsion.

Members are advised to take note of the latest SOLAS amendments and ensure compliance with the applicable requirements.

SOLAS Ch.V/Reg.19 – MSC.350 (92) – Correction of application clause of BNWAS requirements

The clause 'Requirements for bridge navigational watch alarm system' (BNWAS) was amended to clarify that BNWAS is applicable to all ships. There will be a phased implementation of the requirements for ships constructed before 1 July 2002. Ships that will be taken permanently out of service within two years of the implementation date are exempt. The phase-in period is as follows:

- Passenger ships irrespective of size, not later than the first survey after 1 January 2016
- Cargo ships $\geq 3,000\text{gt}$, not later than the first survey after 1 January 2016.

MSC.1/Circ.1474 recommends that the automatic operational mode, if it is available on the bridge navigational watch alarm system (BNWAS), should not be used when the ship is underway at sea. This is an interim measure until the BNWAS Performance Standards (*MSC.128 (75)*) are revised.

Members with existing passenger ships or cargo ships ($\geq 3,000\text{gt}$) built before 1 July 2002 are advised to make retrofitting arrangements and obtain approval from the flag administrations or their recognised organisations.

FSS Code – MSC.367 (93) – Inert Gas Systems

The text of existing chapter 15 of the International Code for Fire Safety Systems (FSS Code) has been completely revised. One essential issue is that the oxygen limit for inert gas supplied to cargo tanks has been changed from 8% to 5%. That means that

the inert gas will be automatically vented to deck (atmosphere) if the oxygen content exceeds 5% by volume. This may affect the way in which the oxygen detection alarm is set.

Members are advised that tankers $\geq 8,000\text{dwt}$ carrying low-flashpoint cargoes and constructed (keel laid) on or after 1 January 2016 must be provided with a fixed inert gas system complying with chapter 15 of the amended FSS Code (or an equivalent system – subject to acceptance by the flag administration). Previously, this applied only to tankers of 20,000dwt and over. As this requirement affects the design and operation of small oil and chemical tankers, members with new building contracts should take particular note, since the application date is based on the keel lay date.

LSA Code – MSC.368 (93) – Revised testing requirements for lifejackets

The requirements for testing adult lifejackets have been updated and new paragraphs added relating to the testing of infant lifejackets, including the possibility to substitute mannequins for human test subjects. *IMO Resolution 81 (70)* has been amended accordingly.

Members are advised that the new requirements will apply to the manufacture and testing of new SOLAS lifejackets only, i.e. a new certificate is not required to retest previously approved lifejackets.

2011 ESP Code – MSC.371 (93) – Corrosion and Corrosion Protection by Coating

The 2011 ESP code covers the survey requirements for oil tankers and bulk carriers (including ore and combination carriers) of 500gt and above. The IMO requirements have been amended to follow the IACS requirement for annual, intermediate and renewal surveys and documentation to be carried on board. Considerations for temporary repair work for damage that does not affect the structural integrity of the ship have been included.

Members are advised that the latest amendments cover corrosion and corrosion protection by coating at the relevant surveys. This is in line with the IACS requirements and will make planning for surveys easier.

IMDG Code – MSC.372 (93) – Amendments 37-14 to the IMDG Code

Since the IMDG code was introduced in 1965, it has undergone many changes, both in format and content, in order to keep up with the rapid expansion of the shipping industry. The latest amendment (*37-14*) include updates to the provisions for radioactive material reflecting the latest (2012) provisions from the International Atomic Energy Agency (IAEA), new marking requirements for 'overpack' and 'salvage', and updates to various individual packing requirements. Amendments to the EMS guide (IMDG code supplement) can be found in *MSC.1/Circ.1476*.



The new requirements for the transport of dangerous goods were applied by certain flag states completely or in part on a voluntary basis from 1 January 2015. Since 1 January 2016, they have become mandatory. Members who are involved in the transport of dangerous goods should pay due attention to the flag state requirements for ships' compliance. Members are also recommended to refer to our [Standard Safety 2016](#) for further details.

IMSBC Code – MSC.393 (95) – Amendments 03-15 to the IMSBC Code (voluntary implementation 1 January 2016)

The latest amendments to the IMSBC code include a new schedule for iron ore fines, as well as a revised schedule for iron ores and a new test procedure for determining the TML (Transportable Moisture Limit) of iron ore fines. Some other schedules in Appendix 1 have been modified and new schedules have been added. Members are recommended to refer to the [club's web alert](#) for further details.

Contracting governments may apply the amendments in whole or in part on a voluntary basis from 1 January 2016. Mandatory compliance with the amended IMSBC Code requirements will commence on 1 January 2017.

Members who are involved in the transport of solid bulk cargoes should pay due attention to the flag state requirements for ships' compliance. However, as these amendments will only come into force on 1 January 2017, the focus at present should be on any voluntary implementation by the contracting governments.

Marpol Annex I Ch.1/Reg.3, Ch.4/Reg.28 and Appendix II – MEPC.248 (66) – Mandatory carriage requirements for stability instruments on tankers

Amendments concerning mandatory carriage requirements for a stability instrument apply to oil tankers constructed (keel laid) on or after 1 January 2016. The ships are required to be fitted with an approved stability instrument capable of verifying compliance with intact and damage stability requirements.

Oil tankers constructed (keel laid) before 1 January 2016 must also comply with the requirements (by confirming or upgrading existing equipment, or installing new equipment) at the first applicable scheduled renewal survey of the ship after 1 January 2016, but no later than 1 January 2021.

For Port State Control purposes, a Document of Approval issued by the flag state (or recognised organisation acting on its behalf) is required for confirmation of compliance.

IOPP Form B certificates for oil tankers are required to reflect the provision of an approved stability instrument on board in accordance with the new regulations or, alternatively, members may apply for a waiver if their vessel is loaded in accordance with approved conditions and falls into one of the

following categories as mentioned under the IMO Resolution MEPC.248 (66):

- Ships that are on a dedicated service, with a limited number of permutations of loading such that all anticipated conditions have been approved in the stability documentation provided on board
- Ships where stability verification is made remotely by a means approved by the administration
- Ships that are loaded within an approved range of loading conditions
- Ships constructed before 1 January 2016 that are provided with approved limiting KG/GM curves covering all applicable intact and damage stability requirements.

Members must ensure that their vessels are fitted with compliant stability instruments (as per [MSC.1/Circ.1229](#) and [MSC.1/Circ.1461](#)) or, alternatively, that the relevant waiver is obtained from the flag state. It should be noted that the stability instrument is not a substitute, i.e. vessels are still required to carry approved stability documentation regardless of whether they are fitted with an approved stability instrument or not. Crew members need to be trained in the use of the programs and be confident that they can demonstrate compliance to port state officers when requested.

* *The new requirements have also been introduced to the following codes to make the provision of a stability instrument mandatory on board all **chemical tankers**:*

- *The Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) – [MSC.376 \(93\)](#) and [MEPC.249 \(66\)](#)*
- *The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) – [MSC.369 \(93\)](#) and [MEPC.250 \(66\)](#)*

Revised IBC/BCH certificates of fitness for chemical tankers reflecting the new requirements will be issued from 1 January 2016. For existing ships, the old certificate does not need to be reissued until the first renewal survey on or after 1 January 2016, but no later than 1 January 2021.

Revised IGC Code – MSC.370 (93) – Encompassing Major Amendments to Design and Operational Requirements

The completely revised and updated International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk ([IGC Code](#)) entered into force on 1 January 2016, with an implementation/application date of 1 July 2016.



The revised IGC Code has been prepared as an amendment to the existing IGC code, taking into account experience and technological development. It encompasses major amendments to design and operational requirements and to operational guidelines, including the new and retroactive requirement for the provision of an approved stability instrument.

Revised IGC/GC certificates of fitness for gas carriers reflecting the new requirements will be issued from 1 July 2016. Gas carriers constructed (keel laid) before 1 July 2016 must also comply with the stability requirements (by confirming or upgrading existing equipment, or installing new equipment) at the first applicable scheduled renewal survey of the ship after 1 July 2016, but no later than 1 July 2021.

Members with building contracts for new gas carriers (keel laid on or after 1 July 2016) need to consider the design and construction requirements in accordance with the provisions of the revised code.

** The following codes have also been amended:*

- *Amendments to the Code for Existing Ships Carrying Liquefied Gases in Bulk (EGC Code) – Section 2.3 and Certificate of fitness.*
- *Amendments to the Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (GC Code) – Section 2.2 and Certificate of fitness – MSC.377 (93)*

Members with existing (pre-IGC Code) gas carriers will have to comply by the first renewal survey on or after 1 January 2016, but no later than 1 January 2021.

Regulations that came into force on 1 March 2016

MARPOL Annex I Ch.9/Reg.43 – MEPC.256 (67) – Heavy Grade Oil as Ballast Prohibited in the Antarctic

After the use (as fuel) and carriage (as cargo) of heavy grade oil (HGO) was prohibited in the Antarctic area by MARPOL Annex I regulation 43, there was a case where a ship carried HGO as ballast. Consequently, an amendment to the regulation was made to clarify that carriage, even as ballast, is prohibited.

Members with ships operating in the Antarctic area (sea area south of Latitude 60°S) must ensure due compliance with this requirement from the date of entry into force. If required, the ship should discharge all heavy grade oil to available shore facilities before entering the Antarctic area.

MARPOL Annex III Appendix – MEPC.257 (67) – Exclusion of radioactive material from the list of harmful substances

The appendix to MARPOL Annex III concerning the identification of harmful substances in packaged form is implemented through the IMDG Code. The resolution excludes the radioactive materials from EHS provisions, as it is difficult to differentiate between the environmental effects resulting from the chemical hazards posed by such substances and those related to radioactivity.

Members are advised that this amendment now includes an exemption for radioactive material as defined in Class 7 of the IMDG Code for MARPOL Annex III.

MARPOL Annex VI Ch.1/Reg.2 and Ch.3/Reg.13 – MEPC.258 (67) – Inclusion of gas fuelled engines and amendments to the IAPP certificate supplement

The application of MARPOL Annex VI has been extended to gas-fuelled ships, by amending the definitions to include gas as fuel oil and a gas-fuelled engine as a marine diesel engine. Regulation 13.7.3 has been amended to clarify the documentation of engines' compliance with NOx emission standards. The supplement to the IAPP certificate is updated accordingly to reflect recent updates to MARPOL Annex VI. The amendment to the certificate also addresses shipboard incinerators.

Members should ensure that the new format IAPP Record of Construction and Equipment is issued to existing vessels when the ship's current IAPP certificate expires.



Regulations coming into force on 1 July 2016

SOLAS Ch.VI/Reg.2 – [MSC.380 \(94\)](#) – Container Weight Verification

Amendments to SOLAS chapter VI require the weight of containers (except those carried on a chassis or a trailer and driven on or off a ro-ro ship engaged in short international voyages – generally, not more than 200nm from a port) to be verified by the shipper who shall then ensure that the verified gross mass is stated in the shipping document. The weight of a container can be verified either by weighing the packed container, or weighing all packages and cargo items, using a certified method approved by the competent authority of the state in which the packing of the container was completed.

[MSC.1/Circ.1475](#) provides guidelines for implementing and enforcing the SOLAS requirements regarding the verification of the gross mass of packed containers prior to stowage on board. These guidelines are intended to assist shippers of containerised shipments and other parties in the supply chain, including shipping companies and port terminal facilities.

Members need to have the verified gross mass of the container provided by the shipper sufficiently in advance of loading in order to prepare and implement the ship stowage plan. The ship's master should not accept containers that are not provided with a verified gross mass. Members are also recommended to refer to the [club's guidance on VGM](#) for further details.

SOLAS Ch.XI-1/Reg.7 – [MSC.380 \(94\)](#) – Atmosphere Testing Instrument for Enclosed Spaces

Amendments to add a new regulation which requires ships to carry an appropriate portable atmosphere testing instrument, or instruments, capable of measuring concentrations of oxygen, flammable gases or vapours, hydrogen sulphide and carbon monoxide prior to entry into enclosed spaces.

In order to avoid duplication, instruments already available on board under other requirements may satisfy this regulation, and suitable means shall be provided for the calibration of all such instruments.

Guidelines for the selection of portable instruments used to test the atmosphere in an enclosed space before entry and at appropriate intervals while within the space are provided in [MSC.1/Circ.1477](#). In addition, the revised recommendations for entering enclosed spaces on board ships ([Resolution A.1050 \(27\)](#)) should be followed.

The new requirements for the carriage of atmosphere testing instruments for enclosed spaces were voluntarily implemented by [certain flag states](#) from 1 July 2015, but these will be mandatory from 1 July 2016.

Members need to ensure that suitable atmosphere testing instruments are placed on board their vessels before the entry into force. The ship's staff need to be properly trained on the use of such instruments, particularly on the measurement procedures and interpretation of the obtained readings, prior to entering enclosed spaces.

*** This requirement has also been introduced to the Code for the Construction and Equipment of Mobile Offshore Drilling Units (1979, 1989 and 2009 MODU Codes) through [MSC.382 \(94\)](#), [MSC.383 \(94\)](#) and [MSC.384 \(94\)](#) respectively.*

SOLAS Appendix – [MSC.380 \(94\)](#) – Record of Equipment for Cargo Ship Safety (Forms E and C)

Amendments have been made to the Record of Equipment for the Cargo Ship Safety Equipment Certificate and the Cargo Ship Safety Certificate (Form E and Form C respectively). In section 2, item 2.7 and subitems is replaced with item 3 and subitems. Subitem 3.1 stating the number of persons accommodated by free-fall lifeboats is new. The previous item 3 and above are renumbered accordingly.

Members should ensure that the new format replacement of the Record of Equipment for the Cargo Ship Safety Equipment Certificate and Cargo Ship Safety Certificate is issued on expiry of current certificates after 1 July 2016.

2011 ESP Code – [MSC.381 \(94\)](#) – Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers

Revisions have been made in respect of:

- a) equipment used during close-up surveys (such as hydraulic arm vehicles, e.g. conventional cherry pickers, lifts and moveable platforms);
- b) minimum requirements for cargo tank testing at the renewal survey by the crew under the guidance of the master;
- c) the addition of a new paragraph on rescue and emergency response equipment in relation to breathing apparatus.

Members are advised that these amendments are in line with the revision of the IACS Enhanced Survey Programme for bulk carriers and oil tankers.



IAMSAR Manual – MSC.1/Circ.1513 – Multiple Aircraft SAR Operations

Amendments to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual include a new chapter on Multiple Aircraft SAR Operations and significant updates to volume III of the manual. These will also be included in the 2016 edition of the manual.

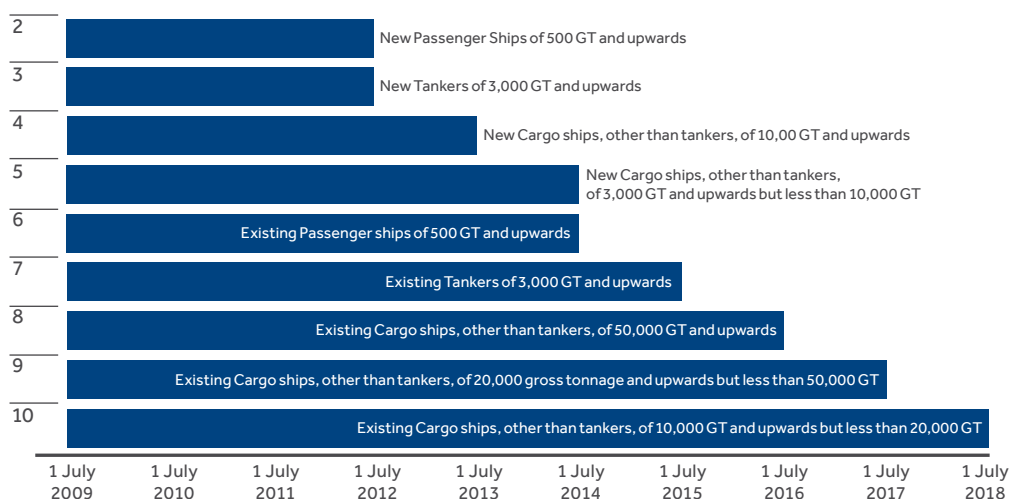
Members are advised to ensure that all their ships carry an up-to-date copy of IAMSAR Manual Volume III in accordance to SOLAS regulation V/21 requirement.

SOLAS Ch.V/Reg.19 – MSC.282(86) – Carriage requirements of ECDIS

ECDIS will be mandatory for cargo ships (non-tankers ≥ 50,000gt), constructed before 1 July 2013, at the first survey on or after 1 July 2016.

Although the ‘first survey’ may not coincide with dry docking, members should be aware that substantial work could be involved in retrofitting this equipment, which could take the ship out of service. Consideration should therefore be given to carrying out the necessary modifications in dry dock before the mandatory implementation date. The agreement of the ship’s flag administration would be required to postpone retrofitting beyond this date.

ECDIS Implementation Schedule



Members requiring further information on this topic should direct their enquiries to either the club’s loss prevention department or the authors.

The information and commentary herein are not intended to amount to legal or technical advice to any person in general or about a specific case. Every effort is made to make them accurate and up to date. However, no responsibility is assumed for their accuracy nor for the views or opinions expressed, nor for any consequence of or reliance on them. You are advised to seek specific legal or technical advice from your usual advisers about any specific matter.

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