

This Brief provides highlights of IMO's Maritime Safety Committee's 98th session, which met from June 7 to 16, 2017. A more extensive report on MSC 98, the ABS International Regulatory News Update, will be released on receipt of the formal report of the 98th session by IMO.

Adopted Amendments to Mandatory Instruments

The following amendments to SOLAS and associated instruments were adopted and are expected to enter into force on January 1, 2020.

- SOLAS Chapter II-1 Revision – a complete revision of SOLAS II-1 was adopted by resolution MSC.421(98). Except where indicated otherwise, the revision applies to cargo and passenger ships:
 - for which the building contract is placed on or after January 1 2020; or,
 - in the absence of a building contract, the keel of which is laid on or after July 1, 2020; or
 - the delivery of which is on or after January 1, 2024.

The revision includes:

- revision of several definitions (draft, trim and bulkhead deck)
- minimum metacentric height (*GM*) or maximum center of gravity (*KG*) is to be accompanied by maximum permissible trim versus draught
- higher degree of subdivision as per the revised subdivision index R for passenger ships
- revision of the limits of heel for cargo ships fitted with cross-flooding devices
- calculation of the probability to survive in the final equilibrium stage of flooding
- coverage of small wells arranged in double bottoms
- acceptance of butterfly valves, suitably supported by a seat or flanges and capable of being operated from above the freeboard deck, in lieu of screw-down valves in piping on cargo ships, which pierces the collision bulkhead for dealing with fluid in the forepeak tank
- acceptable deviations of the minimum double bottom height in way of small wells, including wells for lubricating oil under main engines
- specifications for carrying out damage control drills on passenger ships, which are to take place at least every three months

Additionally, the revisions include the performance of damage control drills for passenger ships constructed before, on or after January 1, 2020.

- SOLAS Chapter II-2 Amendments – the adopted amendments per resolution MSC.421(98) enter into force on January 1, 2020:
 - cargo spaces on all ships used for the transport of motor vehicles (a) with fuel in their tanks for their own propulsion, that are loaded/unloaded into cargo spaces which do not meet the requirements of SOLAS II-2/20, "*Protection of vehicle, special category and ro-ro spaces*"; and (b) that do not use their own propulsion within the cargo space, are not required to comply with SOLAS II-2/20 provided the vehicles are carried in compliance with the appropriate requirements of regulation 19 and the IMDG Code, as defined in SOLAS VII/1.1.
 - windows on passenger ships constructed on or after January 1, 2020, and carrying not more than 36 passengers facing survival craft, escape slides, embarkation areas and windows situated below such areas are to be at least equal to "A-0" class.
- Amendments to the 1994 and 2000 HSC Codes exempt high-speed craft less than 20 m and 30 m in length, respectively, from carrying a rescue boat, provided arrangements are available to allow the craft to maneuver in the worst intended conditions to rescue a person from the water in a near-horizontal body position and that the rescue can be observed from the craft's navigating bridge. Taking into account that the amendments are expected to enter into force on January 1, 2020, a new MSC.1/Circ.1569 was adopted and invites Member States to take action, which may include early application, pending formal entry into force.

- LSA Code Revisions clarify the application of the static tests and their proof load for launching appliances, including their structural members and winches.

IGF Code Revisions – similar to the revisions of the IGC Code adopted as MSC.411(97), revisions of the International Gas Fuel (IGF) Code were adopted as MSC.422(98) and, on entry into force on January 1, 2020, will remove the requirement for A-0 class divisions of boundaries, including navigation bridge windows, above the navigation bridge deck. Taking into account that the amendments will not enter into force until January 1, 2020, a new MSC.1/Circ.1568 was adopted and invites Member States to take action, which may include early application, pending formal entry into force.

IMSBC Code amendments under resolution MSC.426(98) enter into force on January 1, 2019, and explicitly assign the shipper with the responsibility to ensure that the test for determining the transportable moisture limit (TML) of a solid bulk cargo has been carried out within six months prior to the date of loading of such bulk cargo. Additionally, the interval between sampling/testing for the moisture content of solid bulk cargo and the commencement of loading is not to be more than seven days so as to ensure that the moisture content of the cargo is less than its TML. Four solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted have been identified and added to the list published by IMO as MSC.1/Circ.1395/Rev. 3.

Stability Support - Amendments to SOLAS II-1/8-1 were approved and, subject to adoption at MSC 99 in May 2018, are expected to enter into force on January 1, 2020. The amendments require that the master on existing passenger ships constructed before January 1, 2014, be provided with on-board or shore-based computerized stability support for safe return to port after a flooding casualty not later than the first renewal survey after of January 1, 2020. Guidelines on the computerized stability support are currently under development. SOLAS II-1/8-1 was revised in 2012 by resolution MSC.325(90) to require passenger ships constructed on or after January 1, 2014, to comply with these provisions.

New OSV Chemical Code – A draft Assembly resolution on the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code) was approved by the Committee. Subject to concurrent approval by MEPC 71 in July 2017, the Code will be submitted to the 30th Session of the Assembly for adoption in December 2017 and, if adopted, will recommend application to OSVs with keel laying date on or after July 1, 2018.

This new Code supersedes the Guidelines for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels contained in resolution A.673(16). Relative to resolution A.673(16), the new Code:

- no longer limits the quantity of cargo that may be carried, but conditions, based on the quantity of cargo carried, are provided. In particular, the standard of subdivision to be met is probabilistic and/or deterministic depending on the length of the OSV and the amount and type of product intended to be carried.
- does not contain a specific cargo list, as had been provided by resolution A.673(16), but allows OSVs to carry the following products and any mixtures of them:
 - only those offshore-related products listed in chapters 17 or 18 of the IBC Code and the latest edition of the MEPC.2/Circular and their related references to chapters 15 and 19
 - oil-based/water-based mud containing mixtures of products listed in chapters 17 and 18 of the IBC Code and the MEPC.2/Circular
 - liquid carbon dioxide (high purity and reclaimed quality) and liquid nitrogen
 - contaminated backloads
- provides more details for piping-systems and components, including minimum wall thickness
- contains provisions for the carriage of products assigned ship type 2 in Chapter 17 of the IBC Code on-board existing OSVs with keel laying date on or after April 1, 1990, but before July 1, 2018. Currently, A.673(16) does not have provisions to carry these products unless the OSV fully meets the IBC Code.
- supports the issuance of one certificate for all products upon satisfactory completion of the initial survey, the Certificate of Fitness, which is subject to the annual, intermediate and renewal surveys required by the IBC and IGC Codes and MARPOL Annex II. Currently, A.673(16) allows the issuance of a MARPOL Annex II certificate for products having only a marine pollution hazard in lieu of a Certificate of Fitness.

- contains guidance to determine the type of backload, in addition to the analysis form that must be completed prior to loading this type of product.

MODU Code – In light of independent marine investigation reports concerning the explosion, fire and sinking of the MODU Deepwater Horizon in April 2010, and the identified vulnerabilities due to hydrocarbon fires emanating from drilling operations, the Committee adopted resolution MSC.435(98) which revised the 2009 MODU Code. The revisions address:

- maintaining operational control over the integrity of the well and station-keeping capability
- maintenance and repair of hazardous area certified equipment
- specification of the location of "H-60" standard explosion-proof bulkheads/decks
- the provision of a deluge system and enhanced fire-extinguishing arrangements for the drill floor
- increased average body mass of the lifeboat occupants from 82.5 to 95 kg
- prohibition of a lifeboat to be accepted as a rescue boat
- quarterly abandonment drills are to include lowering of a liferaft
- use of certified equipment in hazardous area zone 0, zone 1 or zone 2

Miscellaneous

- Butterfly Valves – The Committee, noting that the amendment to SOLAS II-1/11, adopted by resolution MSC.421(98), will not enter into force until January 1, 2020, adopted MSC.1/Circ.1567 which invites Member States to take action as appropriate. This action may include early acceptance of a butterfly valve as an equivalent to a screw-down valve in piping, which pierces the collision bulkhead on cargo ships, pending formal entry into force.
- Abandonment Drills - New MSC.1/Circ.1578 approved Guidelines for planning and carrying out lifeboat abandonment drills on-board ships. The Guidelines include essential steps to safely carry out simulated launching of free-fall lifeboats in accordance with SOLAS Chapter III, and reflect numerous circulars on measures to prevent accidents with lifeboats in order to be more user-friendly.
- DP Operator Training – The Committee approved Rev.2 of MSC.1/Circ.738, which provides a reference to guidelines issued by the International Marine Contractors' Association (IMCA) and is available at: www.imca-int.com. The Guidelines reflect recognized industry standards for the training, competence and experience for identified key DP personnel on dynamically positioned (DP) vessels and units.
- SOLAS II-1 Explanatory Notes – In light of the extensive revisions to subdivision and damage stability regulations in SOLAS chapter II-1, adopted by resolution MSC.421(98), the Committee also adopted resolution MSC.429(98), which contains revisions to the corresponding Explanatory Notes for the revised SOLAS II-1.
- PSC Guidelines – the Committee approved revisions to the Port State Control Guidelines on certification of seafarers, hours of rest and manning. The revisions include:
 - details of the certificates/documents and their endorsements to be examined
 - the basis to check for the minimum hours of rest in the watch schedule and records of rest
 - examples where clear grounds exist to carry out a more detailed inspection

— The revisions will be included in resolution A.1052(27) on Procedures for port State Control, 2011, which is scheduled to be adopted at Assembly in December 2017.
- Damage Control Plans - Amendments to the *Guidelines for Damage Control Plans and Information to the Master*, MSC.1/Circ.1245, for passenger ships were approved and issued as MSC.1/Circ.1570. The amendments provide additional detail for depicting access points to compartments and clearly depict essential information regarding the ship's watertight subdivision and related equipment.
- Goal-Based Standards – The Committee acted on the conditions contained in MSC.1/Circ.1518, which confirmed that the Rules of the IACS Members, including ABS, conform to the International goal-based ship construction standards for bulk carriers and oil tankers (GBS Standards) under SOLAS II-1/3-10.3, provided the identified non-conformities are rectified. The Committee reviewed IMO's verification audit report of the rectifications submitted by IACS on the non-conformities and concluded that the non-conformities had been satisfactorily rectified.

Work continued on enhancing the GBS Guidelines based on the experience gained during the initial and rectification audits. Part A is nearly complete and, although progress was made, work on Part B will continue over the next two sessions of the Committee with the view to finalization at MSC 100 in November 2018.

- Cyber Risk - The Committee adopted recommendations by resolution MSC.428(98) on the implementation of cyber risk management, which takes into account that safe operational practices in ship operation should identify risks and establish appropriate safeguards to ships, personnel and the environment under the ISM. The resolution *affirms that an approved safety management system should take into account cyber risk management and encourages Administrations to ensure that cyber risks are appropriately addressed in safety management systems no later than the first annual verification of the company's Document of Compliance after January 1, 2021.*
 - ABS, which currently holds the chair of the new IACS Cyber Panel, presented to more than 130 Delegates an overview of the work being undertaken in IACS and in an IACS-led Industry Working Group to increase operational resilience to cyber security threats to systems that control or monitor physical processes aboard ships.
- Autonomous Ships – The Committee considered a proposal on how IMO instruments might be revised to address the complex issue to ensure safe, secure and environmentally sound operation of Maritime Autonomous Surface Ships (MASS), including interactions with ports, pilotage, responses to incidents and marine pollution. It was considered essential to maintain the reliability, robustness, resiliency and redundancy of underlying communications, software and engineering systems. As a starting point, the Committee agreed to start a regulatory scoping exercise over the four sessions of the Committee, until 2020, which would take into account the different levels of automation, including semi-autonomous and unmanned ships.
- Low Flashpoint Fuels - The Committee discussed issues surrounding safety aspects related to low-sulfur fuel oils (specifically 0.50% m/m) being supplied to ships that were reported to have, in certain instances, flash points less than the SOLAS minimum threshold of 60° C. The Committee recognized that, under SOLAS, the use of low-flashpoint fuel oil is subject to an engineering analysis based on Guidelines on alternative design and arrangements for SOLAS chapters II-1 contained in MSC.1/Circ.1212 to comply with the functional requirements of the Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels, IGF Code. Notwithstanding the foregoing, the Committee:
 - invited the submission of specific proposals addressing safety issues related to the use of fuel oil having flashpoints less than 60° C within the scope of the IGF Code to the Sub-Committee on Carriage of Cargoes and Containers in order to be fully prepared for the January 1, 2020, entry into force of the 0.50% sulfur cap of fuel oil
 - expanded the work program of the Sub-Committee on Pollution Prevention and Response to prepare a justification and scope for a new output on what additional measures may be developed to promote consistent implementation of the 0.50% global sulfur limit
 - noted a proposal supported by some Delegations to revise the contents of the bunker delivery note to include the flashpoint value so as to be in line with MARPOL VI/18 concerning fuel oil quality, and that it is to not *jeopardize the safety of ships or adversely affects the performance of the machinery*. However, no further action was taken at this time.

Approved Unified Interpretations

- Means of Drainage – New MSC.1/Circ.1571 clarifies that the drainage from enclosed cargo spaces situated on the bulkhead deck of a passenger ship and on the freeboard deck of a cargo ship may be led to suitable spaces below deck provided such drainage is arranged in accordance with the provisions of regulation 22(2) of the International Convention on Load Lines, 1966, or the 1988 Protocol, as applicable. MSC.1/Circ.1571 clarifies the means of closure for accesses that lead to spaces below the bulkhead deck on ro-ro passenger ships.
- Portable Gas Detection – MSC.1/Circ.1581 was approved and clarifies that the suitable means for calibrating the portable instruments required by SOLAS Regulation II-2/4.5.7.1 adopted as MSC.291(87) to measure flammable vapor concentrations onboard all oil tankers (new and existing) may be provided on board or ashore in accordance with the manufacturer's instructions. This calibration does not include any pre-operational accuracy tests recommended by the manufacturer.

- Inert Gas Systems – MSC.1/Circ.1582 clarifies several provisions for inert gas systems (IGS) required by revised Chapter 15 of the FSS Code (resolution MSC.367(93)). The interpretations address the means for providing:
 - automatic shutdown of the inert gas system and its components
 - operational status of stop valves in branch piping
 - independent oxygen sensor alarm system for low pressure, high pressure and the pressure indicator/recorder
- Means of Access - MSC.1/Circ.1572 consolidates the unified interpretations of the means of access provisions contained in MSC.1/Circ.1464/Rev.1, MSC.1/Circ.1507 and MSC.1/Circ.1545, as well as a new IACS Unified Interpretation on vertical ladder access arrangements that are required to be arranged in two or more sections above and below a linking platform. A second circular, MSC/Circ.686/Rev.1, was approved and provides recommendations for accessing tanks, cargo holds and ballast spaces of oil tankers and bulk carriers to enable the hull structure to be examined in a safe and practical way when performing the overall and close-up surveys, as required by the Enhanced Program of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 (2011 ESP Code).
- Lifeboat Connections - New MSC.1/Circ.1584 provides a method to assess if fixed structural connections and supporting structures (backing plates and bolts) that are not made of corrosion-resistant material are in a *good* condition and therefore not subject to replacement.
- FRP Structures – New MSC.1/Circ.1574 provides interim guidelines when approving alternative designs and arrangements employing Fiber Reinforced Plastic, FRP, elements in ship structures in accordance with SOLAS regulation II-2/17. These guidelines aim to ensure that a consistent approach is applied in order to maintain the level of fire safety afforded by the provisions of SOLAS chapter II-2. The Guidelines supplement the Guidelines in MSC.1/Circ.1455, MSC.1/Circ.1002 and MSC.1/Circ.1552.
- COLREG Sidelights – New MSC.1/Circ.1577 contains a new unified interpretation on the placement of sidelights onboard ships, which provides a realistic and compliant arrangement with the required minimum visibility for the vertical and horizontal sectors specified by the COLREG 1972, as amended.
- Portable Fire Extinguishers – the Committee revised, and issued as MSC.1/Circ.1275/Corr.1, the guidance on the number and arrangement of portable fire extinguishers within ro-ro spaces and vehicle spaces. This corrected circular specifies that such extinguishers are to be spaced not more than 20 m apart on both sides of the space at each deck level in each hold or compartment where vehicles are carried.