

This Brief provides highlights of IMO's Maritime Safety Committee's 97th session, which met from November 21 to 25, 2016. A more extensive report, the ABS International Regulatory News Update, on MSC 97 will be released on receipt of the formal report of the 97th session by IMO.

Adopted Amendments to Mandatory Instruments

- Survey Harmonization – Resolution MSC.409(97) adopted new SOLAS regulation XI-1/2-1 which revises the SOLAS Safety Construction Renewal Survey period for cargo ships, which are not subject to the Enhanced Survey Program (ESP) Code, so as to be harmonized with the Renewal Survey period under the ESP Code. Accordingly, as of the July 1, 2018 entry into force date, the 3-month survey period to complete the SOLAS Safety Construction Renewal Survey will be expanded to 15 months for cargo ships not subject to the ESP Code. Harmonization of the 6-month SOLAS Safety Construction Intermediate Survey period with the 18-month period provided for in the ESP Code will be addressed under revisions to the Harmonized System of Survey and Certification, HSSC, Guidelines.
- Intact Stability (IS) Code Revisions - Revisions of the mandatory requirements of Part A of the IS Code were adopted by resolutions MSC.413(97) under SOLAS and by resolution MSC.414(97) under the Load Line Convention. The revisions address:
 - ✓ ships engaged in anchor handling operations (deploying, recovering and repositioning of anchors and associated mooring lines);
 - ✓ ships engaged in harbor towing of ships and floating structures within sheltered waters;
 - ✓ ships engaged in coastal or ocean towing of ships and floating structures outside of sheltered waters;
 - ✓ ships engaged in lifting operation by means of winches, cranes, a-frames or other lifting devices; and
 - ✓ ships engaged in escort operation in steering, braking and controlling the assisted ship during ordinary or emergency maneuvering.

At MSC 98, in June 2017, revisions of SOLAS II-I and the Load Convention are set to be adopted which will require new ships engaged in the above operation to comply with the IS Code. New ships will be defined as 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 or which are at a similar stage of construction on or after July 1, 2020; or
- ✓ regardless of the above, the delivery of which is on or after January 1, 2024.

Additionally, new resolution MSC.415(97) revises Part B of the IS Code by providing recommended criteria for ships engaged in the above-mentioned operations.

- Foam-type fire extinguishers - Resolution MSC.409(97) contains amendments to SOLAS II-2, regulation 10.5.1.2.2, which specifies that, for all ships, the 135 liter wheeled foam-type extinguishers is not required in machinery spaces of category A containing oil-fired boilers which are protected by a fixed water-based local application fire extinguishing system. This takes into account that such a fixed system provides for a safety performance level that is equivalent to the 135 liter wheeled foam-type extinguisher.
- IGC Code – Fire Rating of Wheelhouse Windows – Resolution MSC.411(97) revises paragraph 3.2.5 of the IGC Code so as to remove the fire-rating requirement for *clear view* screen windows arranged in the wheelhouse that face the cargo area on gas carriers and thereby provides alignment with that required already required for tankers in SOLAS II-2. Taking into account the lack of availability of such windows meeting A-0 fire-rating under the current paragraph 3.2.5 of the IGC Code (resolution MSC.370(93)), which applies to new gas carriers constructed on/after 1 July 2016, the Committee also approved MSC.1/Circ.1549 which invites Member States to take appropriate action on resolution MSC.411(97) at this time.

- ESP Code Revisions - Resolution MSC.412(97) revises the Enhanced Survey Program (ESP) Code by clarifying how close-up surveys and thickness measurements are to be performed for oil tankers and bulk carriers.

STCW 1978, Amendments for Polar Operation

The Committee adopted resolution MSC.416(97) which amends the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 and resolution MSC.417(97) which amends Part A of the STCW Code, both with respect to Polar operation. As these amendments are scheduled to enter into force on July 1, 2018, new circular STCW.6/Circ. 12 contains recommended provisions for applying these amendments on entry into force of the Polar Code on January 1, 2017. The amendments:

- require masters, chief mates and officers in charge of a navigational watch on ships operating in “open waters” in Arctic waters and/or the Antarctic area (i.e. Polar Waters) to hold a certificate in basic training for ships operating in Polar Waters after satisfactorily completing approved basic training and meet the specified standard of competence.
- require masters and chief mates on ships operating in Polar Waters, to hold a certificate in advanced training for ships operating in Polar Waters, other than “open waters” after satisfactorily:
 - ✓ meeting-requirements for certification in basic training for ships in Polar Waters
 - ✓ completing at least two months of approved seagoing service in the deck department, at management level or while performing watchkeeping duties at the operational level; and
 - ✓ completing approved advanced training for ships operating in Polar Waters and meet the specified standard of competence
- provide for transitional provisions which allow seafarers, who commenced approved seagoing service in Polar Waters prior to 1 July 2018, to meet alternative basic training or advanced requirements by 1 July 2020.

Masters and deck officers on ships operating in Polar Waters are required to demonstrate competence in:

- Contribute to safe operation and maneuvering of vessels operating in Polar Waters
- Monitor and ensure compliance with legislative requirements
- Apply safe working practices, respond to emergencies
- Ensure compliance with pollution- prevention requirements and prevent environmental hazards
- Planning and conducting a voyage in Polar Waters
- Manage the safe operation of vessels operating in Polar Waters
- Maintain safety of the ship's crew and passengers and the operational condition of life-saving, firefighting and other safety systems

Approved Amendments

The following amendments to SOLAS and associated instruments were approved and, subject to adoption at MSC 98 in June 2017, are expected to enter into force on 1 January 2020.

- IGF Code Revisions – along the lines of the above adopted revisions of the IGC Code, revisions of the International Gas Fuel (IGF) Code were approved which remove the requirement for A-0 class divisions of boundaries, including navigation bridge windows, above the navigation bridge deck.
- Carriage of vehicles - cargo spaces on all ships, which contain vehicles:
 - 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
 - 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.
- Amendments to the IMSBC Code 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.

- Amendments to the 1994 and 2000 HSC Codes exempt high speed craft less than 20m in length 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.
- LSA Code Revisions provide increased consistency on the application of the static tests and their proof load for launching appliances, including their structural members and winches.

Miscellaneous

- Carriage of liquefied hydrogen - The Committee adopted, by resolution MSC.420(97), Interim recommendations for carriage of liquefied hydrogen in bulk. These interim recommendations are intended to provide the basis for the future minimum requirements for the carriage of this cargo under applicable provisions of the IGC Code. Based on a comparison study of the physical properties of liquefied hydrogen, a class 2.1 dangerous good, and LNG, resolution MSC.420(97) identifies special requirements in the IGC Code for liquefied which include carriage restrictions in "type 2G" tanks, materials to prevent failures due to hydrogen embrittlement, filling limit of cargo tanks, vapor detection, temperature and boiling points of the inert gases during tank purging operations, firefighting systems, firefighters' outfits and protective equipment.
- Ships Carrying Industrial Personnel - The Committee adopted resolution MSC.418(97) which contains Interim Recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages. The Interim Recommendations define industrial personnel (such as those on board ships engaged in the construction and maintenance of offshore wind farms) as persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board vessels and/or other offshore facilities.

Industrial personnel should:

- ✓ not be considered or treated as passengers under SOLAS;
- ✓ be not less than 16 years of age;
- ✓ be familiarized with transfer procedures on/off the ship while at sea, as appropriate;
- ✓ be provided with the ship's life-saving equipment;
- ✓ be equipped with personal protective clothing and equipment suitable for the safety risks to be encountered both while on board the ship and being transferred at sea; and
- ✓ meet appropriate STCW medical standards applicable to engineers.

The Committee agree that these Interim Recommendations should be used as the basis to develop a new Chapter of SOLAS containing new mandatory requirements for the carriage of industrial personnel.

- Goal-Based Standards— The Committee progressed draft revisions of the guidelines for verification of conformity of classification society rules with IMO's goal-based ship construction standards for bulk carriers and oil tankers. The draft revisions were based on experience gained during the initial implementation and verification audits by IMO which led to MSC 96 concluding that the Rules submitted by each of the 12 IACS Member Societies conform to the goals and functional requirements of the Goal-based Ship Construction Standards.

The revised guidelines are planned to be completed for adoption at MSC 100, in November 2018, and would apply to verifications carried out on or after November 2019 of documentation submitted for initial verification and for rule/documentation submitted as a result of rule revisions.

The revised process of rule verification maintenance is tailored for three categories of rule revisions that are developed due to:

1. application of corrective actions emanating from previous verification audits;
2. continuous improvement process, including revisions addressing observations stemming from previous verification audits; and
3. experience gained and the due consideration by the Administration or the recognized organization of rules which have been verified as conforming to the Standards.

- Alternative Fire Safety Arrangements – The Committee approved MSC.1/Circ.1555 which provides amendments to the Guidelines on alternative design and arrangements for fire safety. A new appendix provides a methodology for the selection of performance criteria used to address the survivability of persons on board when exposed to the effects of heat, smoke, toxicity and reduced visibility.
- Shipboard Escape Route Signs/Markings - the Committee approved MSC.1/Circ.1553 which recommends that shipboard escape route signs and emergency equipment location markings use the symbols from ISO 24409-2:2014. IMO will prepare, in 2017, a MSC resolution that will contain the specific graphical symbols from ISO 24409-2:2014.
- Butterfly Valves – The Committee noted that approved revisions of SOLAS II-1/12 will, upon adoption and entry into force, correct an oversight currently contained in SOLAS II-1/11. That correction will allow for the use of a butterfly valve, suitably supported by a seat or flanges and capable of being operated from above the freeboard deck, in lieu of a screw-down valve in piping on cargo ships which pierces the collision bulkhead for dealing with fluid in the forepeak tank. However, because a decision was not reached on the proposed increase of the survivability index, R, for new passenger ships, adoption of the revision of SOLAS II-1 was held in abeyance until this matter is resolved at MSC 98 where it is expected that the complete set of amendments of SOLAS II-1 will be adopted.
- Watertight Doors on Passenger Ships – The Committee postponed until MSC 98 the approval of a MSC Circular which provides guidance to ensure that the three categories of watertight doors that are permitted to be opened during navigation do not inadvertently provide a flaw in the required damage stability survivability of new passenger ships. Upon approval, the MSC circular will apply to new passenger ships constructed on or after the January 1, 2020 expected entry into force date of the revised SOLAS II-1/22. Factors restricting the operation of these watertight doors are included together with operational instructions, markings and postings of such doors. Criteria for carrying out a floatability assessment of Category B doors; i.e., doors that may be opened during navigation when work in the immediate vicinity of the door requires it to remain open, is included.

Unified Interpretations

- Fire Safety Arrangements - A number of interpretations to SOLAS II-2 are provided in new MSC.1/Circ.1555. Included are clarification of double-hull spaces required to be fitted with suitable connections for the supply of inert gas; control of ventilation fans outside the space being served on passenger ships carrying more than 36 passengers; fire ratings of wheelhouse bulkheads; and application of certified safe type electrical equipment for ships carrying dangerous goods.
- Sprinkler Systems - Guidance to size pumps and pressure tanks for automatic sprinkler systems is provided in new MSC.1/Circ.1556. The Circular clarifies that nominal dimensions, as opposed to actual dimensions, should be applied for the number of sprinklers arranged in the area to be protected.
- Remotely located life rafts – New MSC.1/Circ.1490/Rev. 1 allows for self-contained battery-powered lamps to provide the means of illumination for remotely located life rafts under SOLAS regulation III/16.7. Such lamps should be capable of being recharged from the ship's main and emergency source of electrical power, and should be stowed, under charge, close to the liferaft and embarkation ladder they are intended to serve.
- IGF Code – Interpretations to the International Code Gas Fueled Ships were approved under MSC.1/Circ.1559. Clarification is provided for arrangements of tank connection spaces (enclosed spaces surrounding all tank connections and tank valves), fuel preparation rooms, emergency shutdown protection for premixed engines using fuel gas mixed with air before the turbocharger, ventilation systems for gas valve unit spaces, purifier's room, engine-room workshops and stores, location of ventilation inlets for the double wall piping or duct, containment of cryogenic leakages in fuel preparation rooms, sizing of pressure relief valve, special arrangements for bunkering stations.

- Vehicles Carriers - MSC.1/Circ.1555 clarifies that only *pure car and truck carriers* (i.e. vehicle carriers) should comply with the requirements for the carriage of vehicle carriers carrying motor vehicles with compressed hydrogen or natural gas in their tanks for their own propulsion as cargo described in SOLAS regulation II-2/20-1.
- IGC Code – Interpretations to the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), were approved under MSC.1/Circ.1560. Clarifications are provided for the following paragraphs of the IGC Code:
 - ✓ Closing devices for air intakes (paragraph 3.2.6)
 - ✓ Cargo machinery spaces and turret compartments – fire safety (paragraphs 3.3.1 and 11.1.1)
 - ✓ Cargo tank clearances (paragraphs 3.5.3.1.2 and 3.5.3.1.3)
 - ✓ Pump Vents in Machinery Spaces (paragraph 3.7.5)
 - ✓ External tank surface area to determine the size of pressure relief valve (paragraph 8.4.1.2)
 - ✓ Back-flushing of the water-spray system (paragraph 11.3.6)
 - ✓ Safe means of emergency isolation in the event of a failure of a cargo tank-installed PRV
- Fixed fire detection and fire alarm systems – To provide for a uniform approach to sizing the emergency power source for the fire detection and fire alarm system, the Committee approved MSC.1/Circ.1554. The FSS Code’s 30 minute duration for the emergency power source to maintain the operation of the fire detection and fire alarm system, including all the means of visual and audible alarms, is interpreted to be the last 30 minutes of the periods required under SOLAS regulations II-1/42 and II-1/43 (18 hours for cargo ships and 36 hours for passenger ships).
- Hazardous Area Classification – The Committee approved MSC.1/Circ.1557 which clarifies that where the prescriptive requirements for the selection of electrical equipment, cables and wiring and positioning of openings and air intakes within SOLAS and related Codes (IBC and IGC Codes) do not align with the standards published by the International Electrotechnical Commission (IEC), the prescriptive requirements in SOLAS and other relevant IMO instruments prevail and are to be applied.
- Portable Atmosphere Testing Instruments – MSC.1/Circ.1562 clarifies that the SOLAS requirement for a suitable means of calibration of all portable atmosphere testing instruments may be achieved on board or ashore in accordance with the manufacturer’s instructions. The calibration is not to be based on any instructions that include pre-operational accuracy tests as recommended by the manufacturer.
- Polar Code Certification– MSC.1/Circ.1563 provides specific guidance on the timing of surveys as required under the provisions of the Polar Code. The guidance links the Polar Code surveys with the surveys required under the Cargo Ship Safety Certificate.
- Materials containing asbestos - MSC.1/Circ.1426/Rev. 1 clarifies that *materials containing asbestos* means asbestos present in the product/material that is above the threshold value recommended in resolution MEPC.269(68). That threshold is 0.1% or, if agreed by the flag State, 1.0%.
- Fire Pump Capacity – The Committee approved MSC.1/Circ.1558 which clarifies the means to determine the fire pump capacity required by SOLAS for ships designed to carry five or more tiers of containers on or above the weather deck. MSC.1/Circ.1558 addresses three cases:
 1. mobile water monitors are supplied by separate pumps
 2. mobile water monitors are supplied by the main fire pumps
 3. mobile water monitors and the *fixed water spray system* (as per SOLAS II-2/19.3.1.3) are both supplied by the main fire pumps