

IMO MARITIME SAFETY COMMITTEE (MSC 106)

Relevant for shipowners, managers, designers, manufacturers, and flag states.

November 2022

The 106th session of the IMO's Maritime Safety Committee (MSC 106) was held in London, UK, from 2 to 11 November. MSC 106 adopted a new SOLAS Chapter XV on safety measures for ships carrying industrial personnel (IP) along with a related mandatory IP Code and progressed the development of the draft of a new international code of safety for autonomous ships. Requirements to permit LNG tanks constructed from high manganese steel were adopted, and new safety guidelines for lifting appliances and anchor handling winches were approved.



The new regulations are applicable to new and existing cargo ships, and to high-speed cargo craft, which:

- are of 500 gross tonnage and over,
- operate on international voyages, and
- carry more than a total of 12 industrial personnel, special personnel and passengers combined.

The new IP Code is based on the Code of Safety for Special Purpose Ships (2008 SPS Code), but with adaptations and provisions for the training of industrial personnel, the safe transfer of personnel and the carriage of dangerous goods. The carriage of toxic products, low-flashpoint products, and acids as cargo are not allowed on ships having more than 60 persons on board.

Grandfather provisions will allow existing vessels already authorized to carry industrial personnel to obtain certification by complying with parts of the IP Code, i.e. the provisions for training, safe personnel transfer, life-saving appliances and the carriage of dangerous goods.

The new regulations will enter into force on 1 July 2024.

Safety of ships relating to the use of fuel oil

Low-flashpoint fuels are attractive from an environmental perspective due to their clean burning characteristics and low sulphur content.

MSC 106 adopted amendments to SOLAS Chapter II-2, Regulations 3 and 4, requiring new and existing ships carrying oil fuel to be provided with a bunker delivery note, prior to bunkering, stating that the flashpoint of the actual fuel batch is in conformity with the flashpoint requirements of SOLAS. The amendments further request contracting governments to inform the IMO of cases where oil fuel suppliers have delivered fuels that do not meet the SOLAS flashpoint requirements, and to take appropriate action against oil fuel suppliers accordingly.

The amendments will enter into force on 1 January 2026.

Metallic materials for cryogenic service

MSC 106 adopted amendments to the IGC and IGF Codes to include high manganese austenitic (hi-Mn) steel for cryogenic service. The amendments permit the use of high manganese austenitic steel for type A, B and C tanks, for among others butane and methane (LNG) as cargo or fuel.

The amendments will enter into force on 1 January 2026.

Meeting highlights

- Adopted a new SOLAS Chapter XV and a related new international code of safety of ships carrying industrial personnel (IP Code)
- Adopted amendments to SOLAS Chapter II-2 to prevent the supply of fuel oils with flashpoints lower than permitted
- Adopted amendments to the 2011 ESP Code to strengthen the survey requirements for bulk carriers
- Adopted amendments to the IGC and IGF Codes to permit LNG tanks constructed from high manganese steel
- Approved draft new SOLAS requirements to mandate ventilation of totally enclosed lifeboats
- Approved new guidelines for lifting appliances and anchor handling winches
- Progressed a draft new international code of safety for maritime autonomous surface ships (MASS)
- Recognized the Chinese BeiDou Message Service System (BDMSS) as a regional mobile satellite service for use in the GMDSS

Amendments to mandatory instruments

Industrial personnel

A growing offshore renewable energy sector (e.g. wind farms) has triggered the need for a unified application of requirements to vessels that transport and accommodate industrial personnel working offshore.

MSC 106 adopted a new SOLAS Chapter XV and a related new mandatory international code of safety for ships carrying industrial personnel (IP Code). Industrial personnel are defined as persons who are on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

Enhance survey programme (ESP)

MSC 106 adopted amendments to the 2011 ESP Code to enhance the consistent implementation of survey requirements. The main amendments are summarized below:

Bulk carriers

- Ballast tanks to be examined annually if the protective coating condition is found to be “less than GOOD”.
- Double-skin void spaces bounding cargo holds in bulk carriers exceeding 20 years of age and 150 m in length to be examined annually if the protective coating is found to be “POOR”.
- New requirements to the annual survey of double-skin void spaces, when required, for bulk carriers exceeding 20 years of age and 150 m in length.

Oil tankers

- Amended definition of oil tankers to clarify that the ESP Code does not apply to oil tankers carrying oil in independent tanks which are not part of ship's hull (e.g. asphalt carriers).
- Pressure testing requirements on double and single-hull oil tankers were editorially amended

The amendments will enter into force on 1 July 2024.

Watertight doors on cargo ships

MSC 106 adopted amendments to the IBC Code, completing the harmonization of consideration of watertight doors in damage stability calculations across MARPOL Annex I, the Load Line Convention, the IBC Code and the IGC Code with those in SOLAS.

The inconsistencies were related to the type of watertight doors (sliding, hinged), to the technical/operational requirements and to the terminology for the frequency of use of watertight doors. The amendments will not have any impact on existing ships.

The amendments will enter into force on 1 July 2024.

Communication equipment in life-saving appliances

MSC 105 adopted amendments to relocate the provisions for communication equipment in life-saving appliances from SOLAS Chapter III to Chapter IV. MSC 106 adopted consequential draft amendments to the 1978 SOLAS Protocol remove the reference to radio installations used in life-saving appliances in the Form of Safety Equipment Certificate for Cargo Ships.

The amendments will enter into force on 1 January 2026.

Application provisions

MSC 106 approved a second revision of MSC.1/Circ.1500 on “Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments” to include a reference to the building contract in addition to keel laying date when defining installation date in relation to application.

Maritime autonomous surface ships (MASS)

The prospect of autonomous ships operating internationally with little or no human intervention has revealed the need for a regulatory framework for such ships, including their interaction and co-existence with conventional manned ships. The current regulatory framework generally assumes manning and human intervention.

The IMO has agreed to develop a non-mandatory, goal-based code for MASS, potentially entering into force as a mandatory code upon experience with its application.

MSC 106 considered a draft structure and a methodology for development of goals and functional requirements. The work will be continued in a correspondence group until MSC 107 (June 2023).

A joint MASS working group for the IMO's Maritime Safety Committee (MSC), Legal Committee (LEG) and Facilitation Committee (FAL) will address common challenges for MASS operations across several existing IMO instruments, e.g. the role and responsibility of a MASS master and crew, and the implications of a remote control centre and a remote operator.

Containership fires

MSC 106 agreed to establish a Formal Safety Assessment (FSA) expert group to review the outcome of any relevant studies relating to detection and control of fires on containerships.

Human element, training and watchkeeping

Model training courses

IMO model courses are intended to assist instructors in developing training programmes for seafarers as per the International Convention of Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978. The model courses are subject to regular review to ensure that they are consistent with the current IMO instruments and reflect best practices and modern technologies.

MSC 106 approved draft amendments to the guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1) to facilitate consistent description of the teaching objectives of the various IMO model courses.

Electronic certificates and documents for seafarers

Seafarers' certificates and documents are, to an increasing extent, available electronically. MSC 106 approved draft amendments to the STCW Convention and Code to accommodate the use of electronic certificates and documents for seafarers.

Ship systems and equipment

Ventilation of survival craft

MSC 106 approved draft amendments to the Life-Saving Appliances (LSA) Code to mandate ventilation of totally enclosed lifeboats. A ventilation rate of at least 5 m³/hr/person should be provided to prevent high CO₂ concentrations inside the lifeboat.

Amendments to the “Revised recommendations on testing of life-saving appliances” (MSC.81(70)), addressing testing with respect to the new ventilation requirements, were approved accordingly.

The draft amendments are expected to enter into force on 1 January 2026 and to be applied to survival craft installed on or after 1 January 2029, subject to adoption by MSC 107 (June 2023).

The need for ventilation requirements for partially enclosed lifeboats and life rafts will be considered by SSE 9 (March 2023).

Life-saving appliances in polar waters

MSC 106 approved a revision of the "Interim guidelines on life-saving appliances and arrangements for ships operating in polar waters" (MSC.1/Circ.1614) to include an operational methodology for estimating exposure times in polar waters. The Polar Code stipulates that the maximum expected time of rescue should never be less than five days, however there could be circumstances in polar waters where the rescue times may exceed five days.

Dry chemical powder fire-extinguishing systems

The IGC Code requires ships carrying liquefied gases in bulk to be fitted with a fixed dry chemical powder fire-extinguishing system. MSC 106 approved a revision of the "Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk" (MSC.1/Circ.1315).

The guidelines have permitted the use of potassium bicarbonate powders only, although various mixtures of sodium bicarbonate powders and potassium bicarbonate powders are in use in practice. The revision incorporates performance-based provisions, thereby lifting the prescriptive ban on the use of sodium bicarbonate powders.

The revised guidelines will apply to fixed dry chemical powder fire-extinguishing systems installed on or after 1 July 2023.

Lifting appliances and anchor-handling winches

A draft new SOLAS Regulation II-1/3-13, approved by MSC 102 in 2020, requires relevant on-board lifting appliances and anchor-handling winches to be designed, constructed and installed in accordance with classification rules or equivalent rules acceptable to the flag administration. The intention is to prevent mechanical failure that has regularly caused injuries, fatalities and ship damages.

MSC 106 approved the associated guidelines for lifting appliances and for anchor-handling winches on board ships involved with anchor handling operations.

Non-certified existing lifting appliances installed prior to entry into force of the SOLAS II-1/3-13 are required to be tested and thoroughly examined no later than the date of the first renewal survey on or after 1 January 2026. A factual statement issued by the flag administration, or a recognized classification society, could serve as demonstration of compliance with such testing and examination. A load test according to the guidelines is encouraged but not required.

The draft new SOLAS regulation is expected to enter into force on 1 January 2026, with retroactive application, subject to adoption by MSC 107 (June 2023).

Prohibition of PFOS in firefighting foams

MSC 106 approved draft amendments to SOLAS Chapter II-2 and the HSC Codes (1994 and 2000) to prohibit the use of firefighting foams containing perfluorooctane sulfonic acid (PFOS).

The draft amendments are expected to be applicable to new ships constructed on or after 1 January 2026, subject to adoption by MSC 107 (June 2023). Existing ships would be required to comply with the new requirement no later than the date of the first survey after 1 January 2026.

SSE 9 (March 2023) will consider acceptable alternatives to PFOS and potential consequential amendments following the PFOS ban.

Unified interpretations on ventilation duct penetrations

MSC 106 approved a unified interpretation of SOLAS Regulation II-2/9.7.3.1.2 to clarify that the fire insulation should be provided only to the part of the duct and/or sleeve that is on the same side of the division being fire-insulated.

MSC 106 also approved a unified interpretation of SOLAS Regulation II-2/9.7.3.2 to clarify that no clearance should be allowed between the duct and the division when a duct is passing through "B" class divisions.

Standards for coated fabric material tests for inflatable life rafts

MSC 106 approved consequential amendments to the "Revised standardized life-saving appliance evaluation and test report forms" (MSC.1/Circ.1630) to align them with the recent amendments made to resolution MSC.81(70) on "Revised recommendation on testing of life-saving appliances".

Safety equipment forms

MSC 106 approved a minor correction to the record of equipment forms in the 1994 and 2000 HSC Codes and the SPS Code, pertaining to the type of immersion suits and anti-exposure suits.

Navigation, communications, search and rescue

Long-Range Identification and Tracking System (LRIT)

MSC 106 adopted revised performance standards and functional requirements for the long-range identification and tracking of ships (resolution MSC.263(84)/Rev.1). Amendments to guidance circulars were approved accordingly.

Non-SOLAS ships in polar waters

Incidents in polar waters pose a risk to human life, to the polar environment and to search and rescue operations. MSC 106 approved draft amendments to SOLAS and the Polar Code to mandate navigation and voyage planning requirements to certain non-SOLAS ships operating in polar waters.

The requirements will be applicable to:

- fishing vessels of 24 m and above,
- pleasure yachts of 300 GT and above not engaged in trade, and
- cargo ships of 300 GT and above but below 500 GT.

The certificate showing compliance with the requirements in Chapters 9-1 and 11-1 of Part I-A of the Polar Code will be left to the discretion of the flag administrations.

The draft amendments are expected to enter into force on 1 January 2026, subject to adoption by MSC 107 (June 2023).

Guidelines on places of refuge for ships

Marine incidents may involve ships in need of assistance in waters beyond national jurisdictions. IMO resolution A.949(23) provides guidelines to assist flag states, masters, companies and salvors in responding effectively.

MSC 106 approved a draft Assembly resolution containing a revision of the “Guidelines on places of refuge for ships in need of assistance” to incorporate experiences and developments since its adoption in 2004.

Global Maritime Distress and Safety System (GMDSS)

The GMDSS is the worldwide system for communication of emergency and safety information. Amendments to SOLAS, its Protocol of 1988 and related IMO instruments to modernize the requirements to the GMDSS were adopted by MSC 105 (April 2022) and will enter into force on 1 January 2024.

The modernization implies generic requirements, independent of specific service providers, as well as removal of carriage requirements for obsolete systems and a re-organization of the SOLAS requirements to communication equipment. The definitions of the sea areas A1 to A4 have been amended to reflect that the geographical area of coverage may vary between various satellite service providers.

Accordingly, MSC 106 endorsed a revision of COMSAR/Circ.32 on “Harmonization of GMDSS requirements for radio installations on board SOLAS ships”. COMSAR/Circ.32/Rev.1 is intended to provide interpretations of the radio installations requirements in SOLAS Chapter IV and related IMO instruments.

BeiDou Message Service System (BDMSS)

SOLAS amendments to accommodate additional mobile satellite providers entered into force 1 January 2020. All references to the sole service provider “Inmarsat” were replaced by “a recognized mobile satellite service”. Both Inmarsat (UK) and Iridium (USA) are recognized for use in GMDSS.

MSC 106 recognized BDMSS (China) as a regional mobile satellite service for use in the GMDSS, subject to completion of outstanding technical and operational issues.

Electronic Chart Display and Information System (ECDIS)

MSC 106 adopted a revision of the “ECDIS performance standards” (resolution MSC.232(82)) to open for the next technical generation of Electronic Navigational Charts (S-101 ENC).

The draft revised performance standards will be applicable to ECDIS equipment installed on or after 1 January 2029. In a transitional

period, from 1 January 2026 to 1 January 2029, ECDIS equipment may conform to either the current performance standards (resolution MSC.232(82)) or the newly introduced ECDIS performance standards based on S-101.

MSC 106 also approved a revision of the “ECDIS guidance for good practice” (MSC.1/Circ.1503/Rev.2) to improve the unified implementation of ECDIS type approval when approving ECDIS’s software and relevant updates.

Electronic inclinometers for containerhips and bulk carriers

Strong movement of ships at sea regularly causes injuries, loss of lives and containers, and damage to bulk cargoes. MSC 106 approved draft SOLAS amendments to make electronic inclinometers for the measurement of heel angles compulsory for containerhips and bulk carriers of 3,000 gross tonnage and upwards. The draft requirements are not intended for cargo ships occasionally carrying cargoes in bulk and general cargo ships carrying containers on deck.

The draft amendments are expected to enter into force on 1 January 2026, subject to adoption by MSC 107 (June 2023).

Work programme

MSC 106 agreed on the following new work items:

Sub-Committee on Navigation, Communications, Search and Rescue *Pilot transfer arrangements*

MSC 106 agreed to amend SOLAS Regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements.

Shore-based facilities for radiocommunication

MSC 106 agreed to develop guidance to SOLAS Regulation IV/5 on member states’ obligations to provide appropriate shore-based facilities for space and terrestrial radiocommunication services.

Sub-Committee on Implementation of IMO Instruments

Implementation of the 2012 Cape Town Agreement

MSC 106 agreed to develop guidance to assist authorities in the implementation of the 2012 Cape Town Agreement. The agreement provides international safety standards for fishing vessels of 24 meters in length and longer. It will enter into force when 22 member states, with an aggregate 3,600 fishing vessels, ratify the agreement.

Sub-Committee on Ship Systems and Equipment

Elevator safety

MSC 106 agreed to develop measures to ensure the safe operation of elevators on board ships.

Sub-Committee on Ship Design and Construction

Rigging of safety nets

MSC 106 agreed to amend MSC.1/Circ.1331 to address the safety risk to crew when rigging safety netting on accommodation ladders and gangways.

Sub-Committee on Carriage of Cargoes and Containers

Entering enclosed spaces on board ships

MSC 106 agreed to revise resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships.

Any other business

International Quality Assessment Review Board (IQARB)

The IQARB is intended as an assessment of the audits of IACS members' compliance with IACS' quality system, and thereby aid IMO member states in their oversight obligations under the III Code.

MSC 106 agreed that the IQARB Factual Statements, confirming that recognized organizations (ROs) have implemented an effective quality management system, may assist member states in focusing their individual RO oversight programmes and also be recognized during IMO audits of member states.

The intersessional correspondence group on the III Code Implementation Guidance will consider possible updates to the guidance accordingly and report to III 9 (July 2023).

Recommendations

Being the first physical meeting since the COVID-19 pandemic mandates, MSC 106 had a wide range of topics on its agenda, including items postponed from previous remote sessions. To be able to catch up, members had been encouraged not to propose new work items to be considered at this session of MSC.

DNV recommends that our customers monitor the outcome of MSC 107 in June 2023 for information on new regulatory initiatives.

Contact

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Provisional list of resolutions and circulars

Please note that the list and document references are provisional.

RESOLUTION MSC.519(106)

Member States' obligations in connection with search and rescue services under the SOLAS and SAR Conventions in the context of armed conflicts

RESOLUTION MSC.520(106)

Amendments to the International Convention for the Safety of Life at Sea, 1974 (Chapter II-2)

RESOLUTION MSC.521(106)

Amendments to the International Convention for the Safety of Life at Sea, 1974 (Chapter XV)

RESOLUTION MSC.522(106)

Amendments to the Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974

RESOLUTION MSC.523(106)

Amendments to the International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code)

RESOLUTION MSC.524(106)

Amendments to the International Code of Safety for Ships using Gases or other Low-Flashpoint Fuels (IGF Code)

RESOLUTION MSC.525(106)

Amendments to the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 (2011 ESP Code)

RESOLUTION MSC.526(106)

Amendments to the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)

RESOLUTION MSC.527(106)

International Code of Safety for ships carrying Industrial Personnel (IP Code)

RESOLUTION MSC.528(106)

Recommended cooperation to ensure the safety of life at sea, the rescue of persons in distress at sea and the safe disembarkation of survivors

RESOLUTION MSC.263(84)/REV.1

Performance standards and functional requirements for the long-range identification and tracking of ships

RESOLUTION MSC.529(106)

Statement of recognition of maritime mobile satellite services provided by CTTIC through BDMSS

RESOLUTION MSC.530(106)

Performance standards for electronic chart display and information systems (ECDIS)

MSC.1/Circ.1500/Rev.2

Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments

MSC-MEPC.2/Circ.15/Rev.2

Guidelines for the development, review and validation of model courses

MSC.1/Circ.1164/Rev.26

Promulgation of information related to reports of independent evaluation submitted by Parties to the 1978 STCW Convention confirmed by the Maritime Safety Committee to have communicated information which demonstrates that Parties are giving full and complete effect to the relevant provisions of the Convention

MSC.1/Circ.797/Rev.38

List of competent persons maintained by the Secretary-General pursuant to section A-I/7 of the Seafarers' Training, Certification and Watchkeeping (STCW) Code

MSC.1/Circ.1614/Rev.1

Revised interim guidelines on life-saving appliances and arrangements for ships operating in polar waters

MSC.1/Circ.1315/Rev.1

Revised guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk

MSC.1/Circ.1655

Unified interpretations of SOLAS chapter II-2

MSC.1/Circ.1630/Rev.1

Revised standardized life-saving appliance evaluation and test report forms

COLREG.2/Circ.78

Traffic separation schemes and associated measures SN.1/Circ.342
Routeing measures other than traffic separation schemes

MSC.1/Circ.1259/Rev.9

Long-Range Identification And Tracking System – Technical documentation (part I)

MSC.1/Circ.1307/Rev.1

Guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information

MSC.1/Circ.1376/Rev.5

Continuity of service plan for the LRIT system

MSC.1/Circ.1656

GMDSS operating guidance for ships in distress situations

MSC.1/Circ.1657

Procedure for responding to DSC distress alerts by ships

MSC.1/Circ.1658

Guidance on distress alerts

MSC.1/Circ.892/Rev.1

Guidance on alerting of search and rescue authorities

MSC.1/Circ.1659

Guidance for the dissemination of search and rescue related information through the international enhanced group call service

MSC.1/Circ.1403/Rev.2

NAVTEX Manual

MSC.1/Circ.1660

Guidance on the training on and operation of emergency personal radio devices in multiple casualty situations

MSC.1/Circ.1503/Rev.2

ECDIS – Guidance for good practice

MSC.1/Circ.1661

Guidance framework for the application of casualty cases and lessons learned to seafarers' education and training

MSC-MEPC.1/Circ.5/Rev.4

Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies