Key Outcomes of MSC 110

Introduction

The 110th session of the Maritime Safety Committee was chaired by Mrs. Mayte Medina (USA) with Mr. Theofilos Mozas (Greece) serving as Vice-Chair. The session utilized a hybrid participation model, allowing delegates to attend either in-person or online, ensuring broader accessibility and continuity of discussions. The credentials of 110 delegations participating in the session were reviewed and duly validated.

This technical information consists of four main titles based on the decisions and resolutions adopted by the Committee as follows:

A. Amendments to Mandatory Instrument
B. Amendments to Non-mandatory instruments
C. Adopted Unified Interpretations (UIs)
D. Key IMO Decisions

A. Amendments to Mandatory Instrument

During its 110th session, the Maritime Safety Committee discussed and finalized amendments to SOLAS Chapters II-1, II-2, V; the 1994 and 2000 HSC Codes; the IGC Code; and the IMSBC Code**,** preparing them for adoption with a clear implementation timeline.

1. SOLAS Chapter II-1: Construction, Subdivision, and Stability

During MSC 110, Chapter II-1 of SOLAS underwent targeted amendments to align with the industry's transition to alternative, cleaner fuels while maintaining regulatory clarity and safety consistency.

Effective Dates for the Amendment:

Deemed Acceptance Date: 1 July 2027 (This is the date by which, unless one-third of the Contracting Governments or Governments representing at least 50% of the world's merchant fleet object, the amendments will be considered accepted.)
Entry into Force Date: 1 January 2028

The application scope of these provisions was clarified to cover:

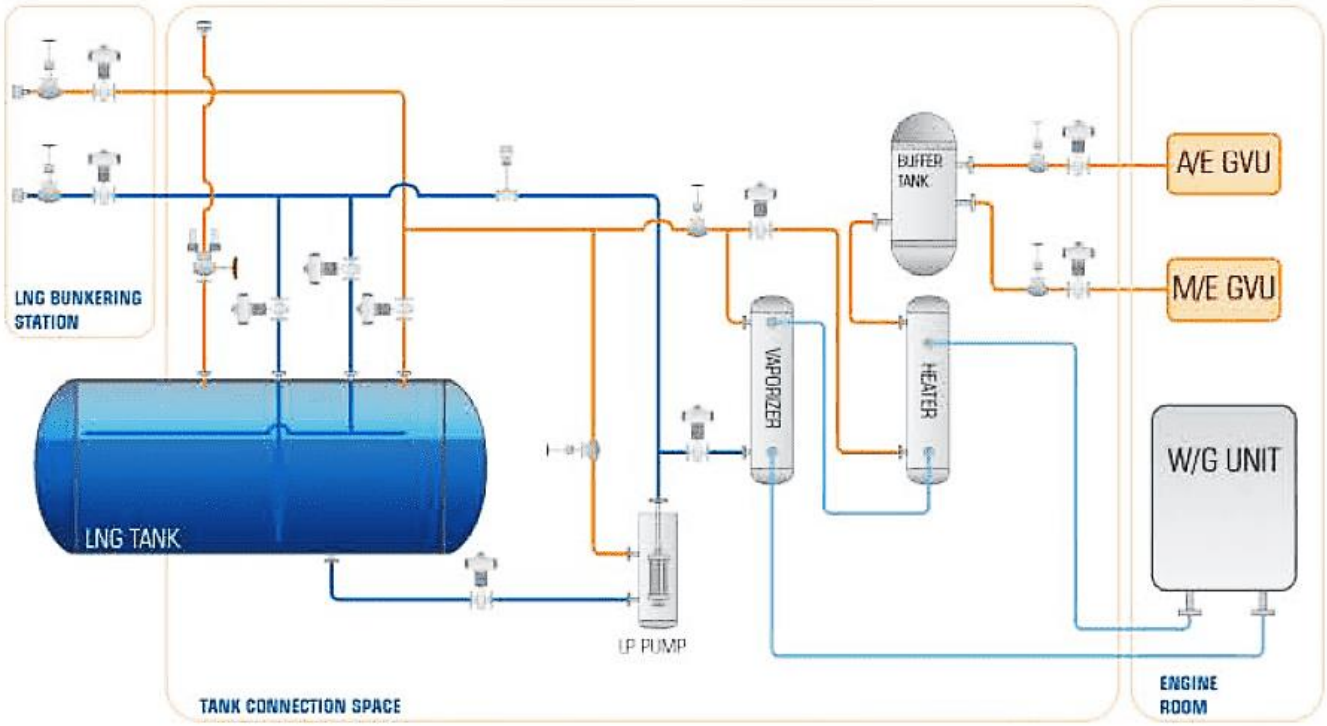
- New buildings (ships with contracts placed, keels laid, or delivered after effective dates).
- Conversions: Ships converting to use gaseous or low-flashpoint fuels after the effective dates will also be subject to the updated Part G requirements.
- Ships switching to different gaseous fuels post-implementation will also fall under these requirements, ensuring regulatory consistency during operational changes.

Key Changes:

Addition of "Gaseous Fuel" Definition:

A clear definition of "gaseous fuel" was added, describing it as any fluid used as fuel that:

- Has a vapor pressure exceeding 0.28 MPa absolute at 37.8°C, or
- Is completely gaseous at 20°C under 101.3 kPa (atmospheric pressure).
  This addition ensures a consistent interpretation across administrations, shipbuilders, and operators when designing and certifying ships using gaseous fuels.



Renaming of Part G:

The previous Part G, which was titled "Ships using low-flashpoint fuels," has been renamed to: "Ships using gaseous fuels or low-flashpoint fuels."

This change:

- Reflects the increasing use of LNG, LPG, hydrogen, and other gaseous fuels in the industry.
- Ensures the provisions cover ships that use gaseous fuels distinctly from other low-flashpoint fuels, removing ambiguity.

Mandatory Compliance with the IGF Code:
The amendments explicitly require ships using gaseous or low-flashpoint fuels to comply with the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), which:

- Regulates design, construction, and operational safety measures for such ships.
- Sets clear requirements for fuel storage systems, piping, ventilation, detection systems, and fire safety measures tailored to the unique risks associated with gaseous fuels.
- Supports IMO's GHG reduction goals while maintaining high safety standards.

2. SOLAS Chapters II-2 and V: Fire Safety and Navigation

Amendments to SOLAS Chapters II-2 (Fire Safety) and Chapter V (Safety of Navigation) adopted at MSC 110 are designed to enhance safety, operational clarity, and regulatory consistency**,** ensuring protection for ships, crew, and pilot boarding operations in line with modern operational realities and technological advancements.

Fire Protection, Detection, and Structural Integrity Updates (Chapter II-2):

- Updated provisions strengthen requirements for structural integrity, fire-resistant materials, and insulation**,** ensuring ships' structures can withstand fire exposure according to updated standards.
- Aligns references in integrity tables (Tables 9.1–9.8) with the correct fire exposure requirements for decks, bulkheads, superstructures, and deckhouses.
- Updates requirements for machinery spaces of category A**,** ensuring appropriate insulation for crowns and casings to enhance fire containment and crew safety during fire incidents.
- These changes contribute to reducing fire-related risks**,** aligning with modern ship design practices and reinforcing shipboard firefighting readiness.

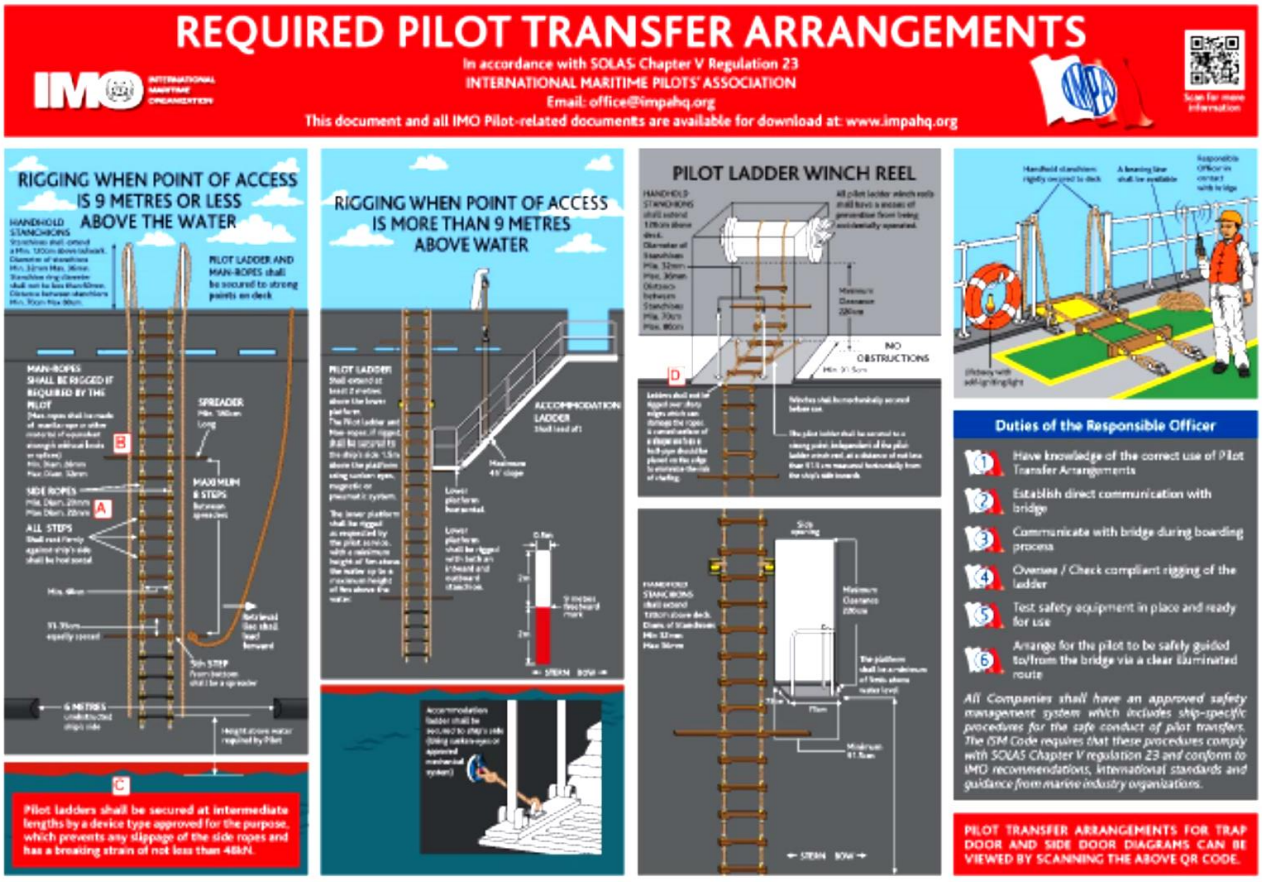
3. Comprehensive Revision of Regulation V/23: Pilot Transfer Arrangements (Ch. V):

A major update was adopted for Regulation V/23 to improve safety during pilot boarding and disembarkation, which is a critical operational risk area.

Effective Dates for the Amendment

The amendments will enter into force on 1 January 2028, following the deemed acceptance date of 1 July 2027 unless objections are raised by one-third of the Contracting Governments or by Governments representing at least 50% of the world's merchant fleet before that date.

From 1 January 2028, all newly installed pilot transfer arrangements on SOLAS ships must comply with the updated standards, while existing ships will need to align with maintenance, inspection, and familiarization requirements in accordance with the revised regulation, ensuring consistent implementation across the global fleet.



Key updates include:

New Design, Manufacturing, Securing, and Installation Standards:

- New pilot transfer arrangements installed on or after 1 January 2028 must comply with updated design and installation requirements based on newly adopted MSC performance standards**.**
- These include material strength, securing methods, dimensions, and safe boarding configurations to reduce accidents during pilot transfers.

Prohibition of Mechanical Pilot Hoists:

- Mechanical pilot hoists, which have posed significant safety hazards, will be prohibited**,** aligning with IMO's commitment to improving pilot safety globally.

Clear Requirements for Inspection, Maintenance, Replacement, and Familiarization:

- New rules clarify that all pilot transfer arrangements (regardless of installation date) must undergo:
  - Routine inspection for compliance and wear.
  - Proper maintenance and timely replacement.
  - Crew and pilot familiarization training for safe operation.
- Inspections on SOLAS Chapter I ships will follow the usual survey regimes, while non-SOLAS ships will be inspected to the satisfaction of the flag administration.

Mandatory Inclusion in Safety Certificates:

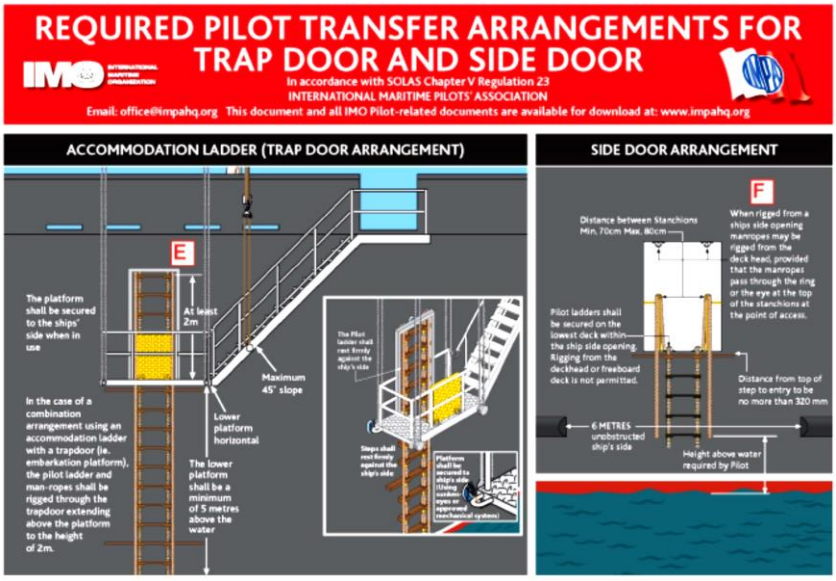
- Pilot ladders, manropes, and securing arrangements at intermediate lengths are now required to be listed explicitly in passenger and cargo ship safety equipment certificates**.**
- This requirement ensures these critical safety tools are regularly verified during statutory surveys and port State control inspections, reducing non-compliance risks.

Lighting Requirements:

- Mandates that fixed or portable lighting must adequately illuminate pilot transfer areas over side and on deck during operations, enhancing safety during night or low-visibility transfers.

Right to Refuse Unsafe Arrangements:

- Pilots or personnel who identify non-compliant transfer arrangements are encouraged to inform the master and refuse to use the arrangement until compliance is achieved**,** supporting a safety-first operational culture.



4. 1994 & 2000 HSC Codes: High-Speed Craft Safety

Amendments to the 1994 and 2000 High-Speed Craft (HSC) Codes adopted at MSC 110 aim to enhance passenger and crew safety on high-speed vessels, particularly focusing on life-saving appliance standards and pilot transfer safety requirements, aligning these Codes with updated SOLAS provisions.

Enhanced Lifejacket Requirements:

Compliance Timeline for Lifejacket Amendments:

- These provisions apply to craft constructed on or after 1 January 2028.
- Craft constructed before 1 January 2028 must comply no later than the first renewal survey on or after 1 January 2028.

Inclusion of Infant Lifejackets:

- Passenger high-speed craft on voyages under 24 hours are now required to carry infant lifejackets equal to at least 2.5% of the number of passengers onboard.
- For voyages of 24 hours or longer, craft must carry infant lifejackets for each infant onboard.
- This ensures infants are provided with appropriately sized life-saving equipment, addressing previous safety gaps during emergency situations on HSCs.

Accommodation for Persons up to 140 kg and 1,750 mm Chest Girth:

- Where existing adult lifejackets are not designed to fit individuals weighing up to 140 kg with a chest girth up to 1,750 mm, a sufficient number of suitable accessories must be available to secure lifejackets for such persons.
- This amendment ensures compliance with inclusive safety practices, enhancing survivability and comfort during emergencies for larger individuals.

Integration of Pilot Transfer Arrangement Requirements:

The amendments require:

- Inclusion of pilot transfer arrangements (pilot ladders, manropes, and securing arrangements at intermediate lengths) in the Record of Equipment for HSC Safety Certificates.
- Ensures these arrangements are:
    - Properly documented in statutory certificates.
    - Regularly inspected and maintained under survey regimes.
    - Clearly reflected in the ship's safety documentation to facilitate compliance checks during port State control and flag State inspections.

This aligns HSC Codes with the updated SOLAS Chapter V/23 requirements for pilot transfer safety, ensuring that high-speed craft maintain consistent standards with conventional vessels for pilot boarding operations.

5. IGC Code: Liquefied Gas Carriers

Amendments to the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) adopted at MSC 110 are designed to align regulatory frameworks with alternative fuels, emerging technologies, and enhanced safety measures for liquefied gas carriers, ensuring clarity and consistency across certification and operational safety requirements.

Effective Dates for the Amendment

The amendments to the IGC Code adopted at MSC 110 will:

- Enter into force on 1 January 2028**,**
- following the deemed acceptance date of 1 July 2027, unless one-third of the Contracting Governments or Governments representing at least 50% of the world's merchant fleet object before that date.

From 1 January 2028**,** these amendments will be mandatory for all applicable new liquefied gas carriers and relevant retrofitting on existing ships**,** ensuring consistent implementation of updated safety and certification standards across the global fleet.

Alignment with Alternative Fuels and Emerging Technologies:

The updates reflect the industry's transition towards alternative fuels such as LNG, LPG, ammonia, and hydrogen by:

- Including provisions to accommodate new fuel types and fuel system technologies**.**
- Addressing the safe use of these fuels within the scope of gas carriers, ensuring regulatory consistency with evolving IMO decarbonization objectives and alternative fuel adoption trends in the industry.

Enhanced Safety Design for Fuel Systems and Fittings:

The amendments enhance requirements for:

- Fuel system integrity, including safe design and installation of pipelines, valves, and associated equipment.
- Protection measures against leakage, overpressure, and operational hazards**,** reflecting advances in technical safety management.
- Improved risk management for handling gases as cargo and as fuel, reducing potential hazards during operations.

Improved Clarity in Certificates of Fitness:

Updates have been made to the model form of certificates of fitness under the IGC Code to:

- Clearly distinguish between products suitable for carriage as cargo and as fuel**.**
- Ensure that ship operators, inspectors, and authorities can easily verify the scope of certification and operational limitations of each vessel.
- Facilitate compliance checks during flag State inspections and port State control.

Specific Provisions Addressed:

Double Block and Bleed Valves:

- Provisions on the design and positioning of non-return valves within double block and bleed arrangements have been updated to improve system reliability and safety.

Flange Safety:

- Clarifications on the requirements for flanges, valves, bellows expansion joints, and associated fittings have been incorporated to prevent leakage and ensure integrity under operational conditions.

6. IMSBC Code: International Maritime Solid Bulk Cargoes Code

The amendments adopted during MSC 110 update the IMSBC Code to enhance fire safety measures, operational consistency, and cargo classification clarity for the transport of solid bulk cargoes, aligning with updated technical assessments and lessons learned from incident investigations.

Entry into Force:

The amendments will enter into force on 1 January 2028, following the deemed acceptance date of 1 July 2027, unless objected to by one-third of Contracting Governments or Governments representing at least 50% of the world's merchant fleet.

Updated Lists of Cargoes Exempt from Gas Fire-Extinguishing Systems:

The revised IMSBC Code includes updated lists (referenced under MSC.1/Circ.1395/Rev.7 identifying:

- Cargoes for which fixed gas fire-extinguishing systems are ineffective in suppressing fires due to the nature of the material (e.g., some metal fines, certain coals, direct reduced iron).
- Cargoes exempt from the requirement for a fixed gas fire-extinguishing system in holds, provided that alternative safety measures are in place, as these systems may not contribute to effective fire control for such materials.

Examples of cargoes impacted:

- Coals prone to self-heating requiring specific ventilation and monitoring rather than CO_2 flooding systems.
- Metallic substances that react with CO_2**,** which may exacerbate hazards instead of extinguishing fires.
- Cargoes that do not support combustion in a manner controllable by inert gases.

These updates reflect practical experience and technical data on fire-fighting effectiveness, reducing unnecessary reliance on CO_2 systems while maintaining safety.

Enhanced Fire Safety Management:

The amendments also emphasize:

- Improved fire prevention measures during carriage, including:
  - Pre-loading moisture content verification where applicable.
  - Enhanced hold temperature monitoring procedures during voyages.
  - Clear ventilation strategies for cargoes prone to emitting flammable gases.
- Clarified stowage and segregation requirements for incompatible materials to prevent fire escalation.
- Mandatory crew familiarization with fire response protocols tailored to cargo type in compliance with the updated IMSBC provisions.

These provisions aim to reduce the risk of hold fires and ensure that ships are equipped with practical, effective means to detect and manage fires according to the nature of the cargo.

Enhanced Classification Consistency for Hazardous Cargoes:

The amendments refine:

- The classification of cargoes based on physical and chemical properties, ensuring consistency across administrations and operators.
- The cargo-specific conditions under which certain cargoes can be carried, with explicit reference to fire-fighting capabilities required or exemptions applicable.

B. Amendments to Non-mandatory Instruments

1. 2008 Special Purpose Ships (SPS) Code

Updates to the SPS Code enhance safety requirements for ships carrying more than 12 special personnel, including:

- Clarifications on life-saving appliances.
- Stability and structural safety provisions.
- Fire safety and protection measures aligning with updated SOLAS requirements.

2. Code of Safety for Fishermen and Fishing Vessels:

Amendments improve safety standards for fishing vessels and their personnel, focusing on:

- Stability criteria.
- Fire safety and protection.
- Equipment and operational safety during fishing activities.

These updates ensure these codes remain aligned with advancements in safety standards, IMO regulations, and practical operational needs**.**

3. Updated MSC Circulars:

Entry into Force

The amendments contained within these annexes:

Enter into force on 1 January 2028, following the deemed acceptance date of 1 July 2027, consistent with the implementation schedule for the broader MSC 110 package of amendments.

Pilot Transfer Arrangements:

Updated circulars address:

- Required pilot transfer arrangements, providing standardized technical guidance to support safe pilot boarding and disembarkation globally.
- Voluntary early implementation guidance for SOLAS Regulation V/23 amendments before their formal entry into force, encouraging proactive compliance.

Carriage of Dangerous Goods:

- Updates clarify documentation requirements for dangerous goods under SOLAS Chapter II-2 and the HSC Code, ensuring:
  - Clear, uniform procedures for issuing and verifying compliance documentation.
  - Alignment with updated carriage requirements and operational best practices.

Safe Use of Pesticides in Ships:

- Revised recommendations on:
  - The safe use of pesticides for fumigation of cargo holds.
  - General pesticide handling in ships to enhance crew safety, environmental protection, and compliance with safety protocols during fumigation activities.

Fire Safety for Specific Solid Bulk Cargoes:

- Updates lists of solid bulk cargoes exempt from or ineffective with fixed gas fire-extinguishing systems, aligning with amendments to the IMSBC Code.
- Clarifies fire risk categorization and suppression approaches for specific bulk cargo types, improving preparedness during cargo operations.

C. Adopted Unified Interpretations (UIs)

Entry into Force:

These Unified Interpretations are effective upon issuance (adopted at MSC 110, June 2025**)** and are immediately applicable for certification, survey, and inspection procedures under the relevant IMO Codes and Conventions**.**

Unified Interpretation of the IGF Code (MSC.1/Circ.1622/Rev.1)

This UI clarifies ambiguous provisions within the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), including:

- Use and safety requirements for dual-fuel and gas fuel systems (e.g., LNG, LPG, hydrogen).
- Requirements for gas detection, ventilation systems, and fuel system arrangements.
- Detailed interpretation of pipe connections, segregation, and valve arrangements for gas fuel systems.

To ensure consistent application of safety standards across flag States, classification societies, and operators, preventing discrepancies in certification and inspection processes related to gas-fueled ships.

Unified Interpretation of SOLAS Regulation II-2/9.7.1.1 (MSC.1/Circ.1670)

This interpretation addresses access to enclosed spaces and the functionality of fire doors, specifying:

- The design and operational requirements for vertically sliding fire doors**,** ensuring they can be opened and closed safely in the event of power failure.
- Clarification on when fire doors must remain closed and how temporary securing may be managed during specific operations.

To harmonize inspection and certification procedures for fire doors under SOLAS, ensuring clear operational safety and consistency during PSC inspections and flag State audits.

Unified Interpretation for the Use of Ballast Water Management Systems (MSC.1/Circ.1671)

This UI provides guidance on the operation and interaction of Ballast Water Management Systems (BWMS) with other shipboard systems, including:

- Verifying correct operation under various ballast operations.
- Managing system alarms and operational warnings effectively.
- Ensuring compatibility of BWMS operation with other equipment sensitive to water quality.

To facilitate consistent implementation of the Ballast Water Management Convention while ensuring operational clarity and practicality for crew during ballast water operations.

Unified Interpretation on Fire-Resistant Cables (MSC.1/Circ.1672)

This UI clarifies requirements for fire-resistant cables used in escape routes and critical safety systems, specifying:

- The test standards (e.g., IEC 60331) to be used to verify cable performance under fire conditions.
- Requirements for maintaining the functionality of critical systems during a fire on board.

To ensure vital safety systems remain operational during fire incidents and to standardize acceptance and testing requirements across administrations and classification societies.

D. Key IMO Decisions

During this session, the Maritime Safety Committee made several key decisions aimed at enhancing maritime safety, promoting digitalization, and strengthening compliance mechanisms within the IMO framework. The following summarizes these decisions in a clear and organized manner

- **IMO Digitalization Strategy**
  The Committee agreed to establish a Correspondence Group to develop the IMO Strategy on Maritime Digitalization**,** aiming to finalize a comprehensive strategy by 2027. This initiative will incorporate input from Member States and international organizations, ensuring that safety, environmental protection, and operational efficiency perspectives are fully considered as the IMO advances towards digital transformation across its regulatory and operational frameworks.
- **Electronic Certificates**
  The Committee approved joint guidelines for the use of electronic certificates (FAL-LEG-MEPC-MSC.1/Circ.1). This decision aims to facilitate the digitalization of ship documentation, enabling the electronic issuance, use, and verification of certificates, reducing administrative burdens on shipping companies and authorities while improving the efficiency of port State control inspections and compliance processes.
- **Drug Smuggling Guidelines**
  The Committee continued its review of the Revised Guidelines for the Prevention and Suppression of Drug Smuggling on Ships**,** advancing towards amendments that will strengthen measures to combat drug, psychotropic substance, and precursor chemical smuggling within international maritime traffic. This work is being conducted in collaboration with FAL and LEG, targeting a completion timeline by 2027.
- **Dark Fleet Operations**
  After considering India's proposal to add an operative paragraph to resolution A.1192 (33) addressing "dark fleet" operations and the potential criminalization of seafarers, the Committee decided not to amend the resolution**.** Instead, it agreed to maintain the current structure while continuing to monitor issues related to dark fleet activities within existing IMO frameworks.
- **Fraudulent Registration**
  The Committee tasked the III Sub-Committee with addressing fraudulent ship registration and fraudulent registries**,** requesting it to examine proposed measures to prevent unlawful practices. This includes reviewing procedures under port State control related to the Continuous Synopsis Record (CSR), analyzing audit summary reports under the IMO Member State Audit Scheme, and considering transfer procedures between States, all with the objective of enhancing transparency and legal compliance in ship registration practices globally.

***