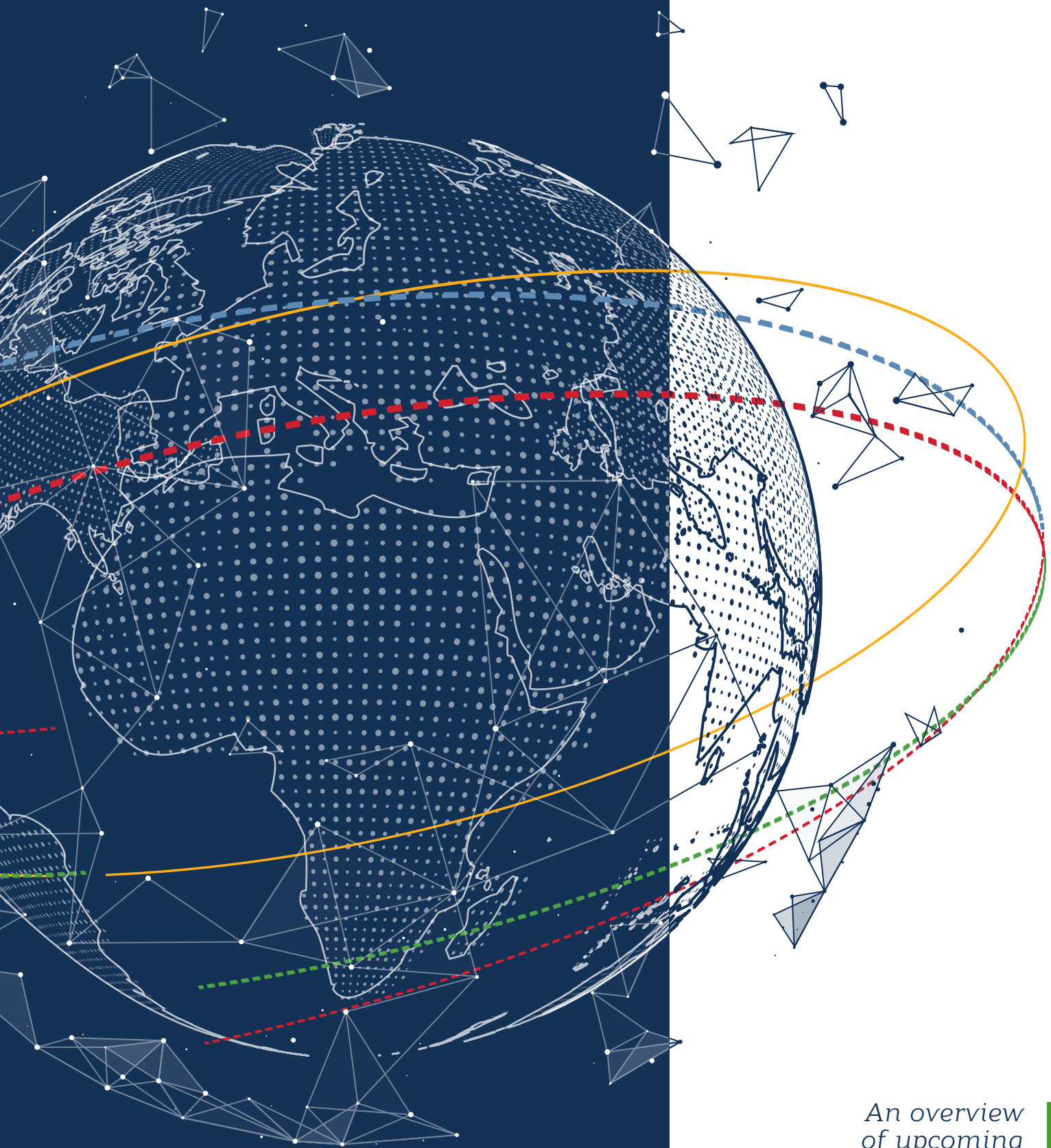
REGULATORY
Trends and Impact

THIRD EDITION



An overview of upcoming **INTERNATIONAL AND REGIONAL** *regulatory developments*

ABS®

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INTRODUCTION

In recent years, the International Maritime Organization (IMO) has introduced a series of pivotal initiatives aimed at advancing environmental sustainability, strengthening maritime safety and fostering technological progress within the global shipping sector. Among its key priorities are the mitigation of decarbonization challenges, the formulation of strategic responses to emerging cybersecurity threats in maritime operations and the enhancement of ship safety standards. These efforts include a concentrated emphasis on improving crew training, integrating cutting-edge technologies and ensuring that international regulatory frameworks evolve in tandem with innovations such as autonomous shipping systems.

Building on the ABS Regulatory Trends – Second Edition publication, ABS reaffirms its commitment to supporting shipowners, operators and maritime stakeholders by delivering timely insights into the evolving regulatory landscape at both international and regional levels.

ABS Regulatory Trends – Third Edition offers a detailed overview of recent and anticipated regulatory developments from the IMO. It highlights newly adopted measures as well as proposals currently under deliberation that are expected to shape future regulatory frameworks. In addition, this publication provides a concise summary of key regulatory initiatives emerging at regional and national levels.

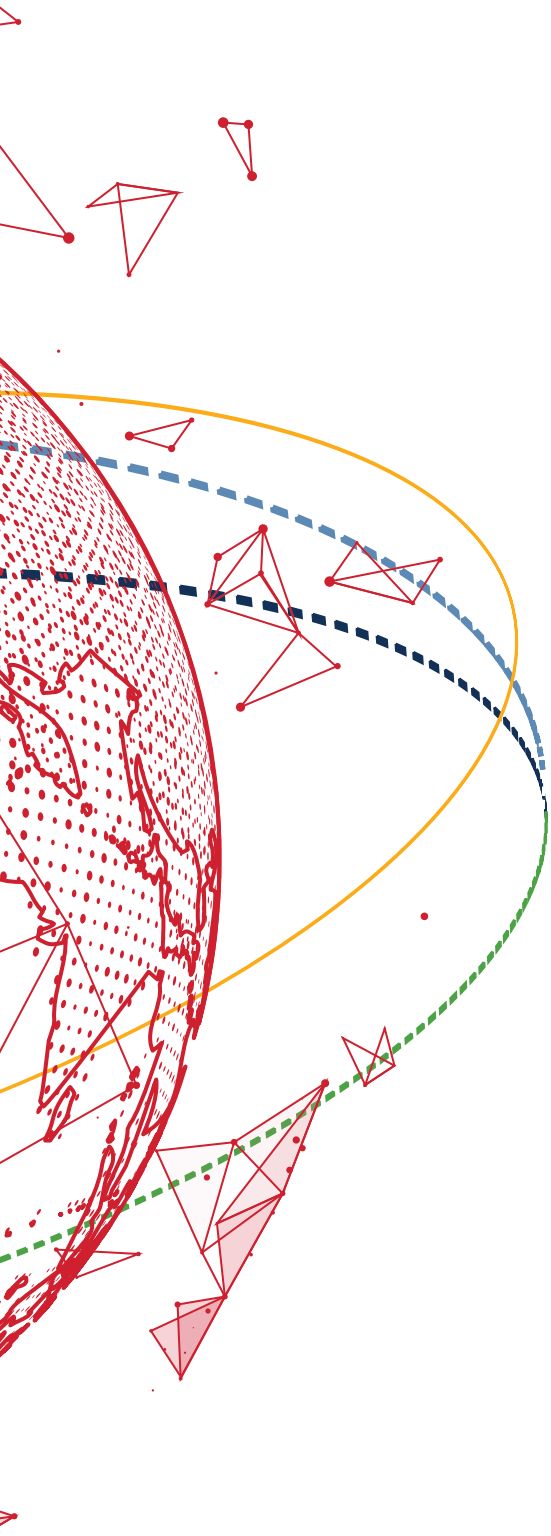
KEY DEVELOPMENTS

- IMO Net-Zero Framework
- Phase 2 of the Short-Term GHG Reduction Measures
- North-East Atlantic Ocean Emission Control Area
- New Requirements for Lifting Appliances and Anchor Handling Systems
- Development of Safety Provisions for Alternative Fuels
- EU Fit for 55 — FuelEU Maritime Regulation
- Regional Restrictions on EGCS Discharges

This edition is organized into two primary sections:

1. International Developments (IMO):
   - Environmental Protection: Including outcomes from the 83rd meeting of the Marine Environment Protection Committee (MEPC 83), the second extraordinary session (MEPC/ES.2) and the 13th meeting of the Pollution Prevention and Response (PPR) Sub-Committee.
   - Maritime Safety: Including outcomes from the 109th and 110th meeting of the Maritime Safety Committee (MSC 109 and MSC 110) and the 12th meeting of Ship Design and Construction (SDC 12) Sub-Committee.
2. Regional and National Developments

The Third Edition reflects the regulatory status as of March 2026. ABS will continue to monitor developments within the IMO and other regulatory bodies, providing ongoing guidance to help industry stakeholders navigate emerging requirements and maintain compliance.



Part One

INTERNATIONAL DEVELOPMENTS

IMO Environmental Protection

IMO Maritime Safety

REGULATORY OVERVIEW

2025

2026

MARITIME SAFETY

1 January 2025
IMSBC Code
Amendment (07-23)

1 July 2025
Electronic Certificates of Seafarers

26 February 2025
Interim Guidelines for the Safety of Ships using Ammonia as Fuel

27 June 2025
Revised Recommendations for Entering Enclosed Spaces Aboard Ships

1 January 2026
SOLAS V
- Electronic inclinometers on containerships and bulk carriers
- Mandatory Reporting of Lost or Observed Freight Containers

1 January 2026
LSA Code
- Single hook and fall systems
- In water performance of lifejackets
- Lowering speed of survival crafts

1 January 2026
IGC and IGF Code
Use of manganese austenitic steel for cryogenic service

1 January 2026
IMDG Code
Amendment (42-24)

1 January 2026
Grain Code
New Class of loading conditions

1 January 2026
SOLAS II-2
- Prevention of Fire and Explosion
- Prohibition of PFOS in firefighting foams

1 January 2026
SOLAS II-1
New OLAW Regulations

1 January 2026
FSS Code and SOLAS II-2
Safety on RoRo passenger ships and fire protection of control stations on cargo ships

1 January 2026
SOLAS III
Annual thorough examination and operational test concerning ventilation system

1 January 2026
STCW Code
Bullying and Harassment new provisions

1 July 2026
IGC Code
Use of cargoes identified as toxic products as fuel (e.g., ammonia)

May 2026
Interim Guidelines
- Use of Ammonia Cargo as fuel
- Ships using Hydrogen as fuel

May 2026
Non-Mandatory MASS Code

Comprehensive Review of the STCW Convention and Code

- Regulatory assessment of safety aspects of GHG emissions from ships
- IACS to support the safe delivery of IMO's strategy on reduction of GHG emissions from ships

1 Januar
IMSBC C
New ind
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Amendr

GBS MASS Code development

2025

202

1 Feb 2025
BWM
Changes to the form of the Ballast Water Record Book (BWRB)

April 2025
Review of the Short-Term GHG Measures — Phase 1
CII reduction (Z) factors for 2027 to 2030

April 2025
Guidelines for Test-Bed and Onboard Measurements of Methane and/or Nitrous Oxide

April 2025
2025 Guidelines on selective catalytic reduction (SCR) systems

April 2025
Net-Zero Framework
Approval of the Mid-Term GHG Measures

1 August 2025
Enhanced IMO DCS Reporting Requirements

Extraordinary MEPC/ES.2 Session
Consideration of adoption of the Mid-Term GHG Reduction Measures

April 2025
Amendments to the 2023 Guidelines for the development of the Inventory of Hazardous Materials

April 2025
2025 Action Plan to Address Marine Plastic Litter from Ships

1 October 2025
Use of Electronic Ballast Water Record Book

1 March 2026
Canadian Arctic and Norwegian Sea ECAs for SOx, PM and NO_x

1 September 2026
NOx Technical Code
Certification of an Engine Subject to Substantial Modification

MARPOL Annex VI
Attained and Required EEDI

IBTS Guidelines and Amendments to the IOPP Certificate and Oil Record Book

Lifetime Performance of Sewage Treatment Plants

Action Plan for the Reduction of Underwater Noise

2027 | 2028 | 2029

ry 2027
Code
ividual
es —
ment (08-20)

1 January 2028
SOLAS II-1
Emergency Towing Equipment for Ship Types other than Tankers (≥ 20,000GT)
New Regulation II-1/3-4

1 January 2028
SOLAS V
Pilot Transfer Arrangements

1 January 2028
IGF Code
Specific requirements for NG-fueled ships

1 January 2028
HSC Code
Lifejacket Carriage Requirements

1 January 2029
LSA Code (Ch. IV)
Ventilation requirements for totally enclosed lifeboats

1 January 2029
Performance Standards AIS

1 January 2029
Recommendation on testing of LSA
- Prototype tests
- Maneuvering requirements
- Ventilation performance test
- Incremental rotation

1 January 2029
Performance Standards ECDIS

Adopted by IMO | **Finalized/Soon to be Adopted Anticipated to Enter into Force** | **Ongoing Discussion (*Indicative Placement in the Timeline)**

26 | 2027 | 2028

Review of the Ballast Water Management Convention
Adoption of amendments to BWM Convention

Reconvening of MEPC/ES.2
Consideration of adoption of the Mid-Term GHG Reduction Measures

1 September 2027
MARPOL Annex VI NO_x Technical Code
Use of multiple engine operational profiles for marine diesel engines

1 September 2027
North-East Atlantic Ocean ECA for SO_x, PM and NO_x

Net-Zero Framework
If adopted in October 2026 under the tacit acceptance procedure, the Mid-Term GHG Measures will enter into force 16 months thereafter

Fifth GHG Study
Consideration of the final report on the Fifth GHG Study

Development of a regulatory framework for the use of OCCS

MARPOL Annex VI
- Sulfur Oxides (SO_x) and Particulate Matter (PM)
- Exhaust Gas Cleaning Systems (EGCS) Discharges
- Nitrogen Oxides (NO_x)
- Shipboard Incineration
- Data Collection System (DCS)
- Volatile Organic Compounds (VOCs)
- Carbon Intensity Indicator (CII)
- Impact of Emissions of Black Carbon (BC) from International Shipping

Review of the Short-Term GHG Measures — Phase 2
- Consideration of proposals to ensure synergies between the Short-Term and Mid-Term GHG measures
- Consideration of the development of the enhanced SEEMP framework
- Consideration of other CII metrics

IMO ENVIRONMENTAL PROTECTION

GREENHOUSE GAS REDUCTION

ONGOING DISCUSSION

IMO NET-ZERO FRAMEWORK

The draft mid-term greenhouse gas (GHG) reduction measures – IMO Net-Zero Framework (NZF) – were approved at MEPC 83 in the form of a new Chapter V in MARPOL Annex VI, providing the regulatory framework for the reduction of GHG emissions, along with the necessary amendments to the other relevant chapters of MARPOL Annex VI. The NZF was intended to be adopted during MEPC/ES.2 in October 2025 with entry into force 16 months later and implementation beginning January 1, 2028.

Key Elements of the Approved NZF

Ships of 5,000 gross tonnage (gt) and above will need to monitor and report their attained annual GHG fuel intensity (Attained GFI), expressed in grams of carbon dioxide (CO_2) equivalent per megajoule (gCO_{2eq}/MJ) of all fuels used on board in a calendar year on a well-to-wake (WtW) basis. This value must be below the target annual GHG fuel intensity, which consists of two tiers:

1. A base target annual GFI
2. A direct compliance target annual GFI

The target annual GHG fuel intensity will be reduced on an annual basis compared to the GFI reference value as indicated in the table below:

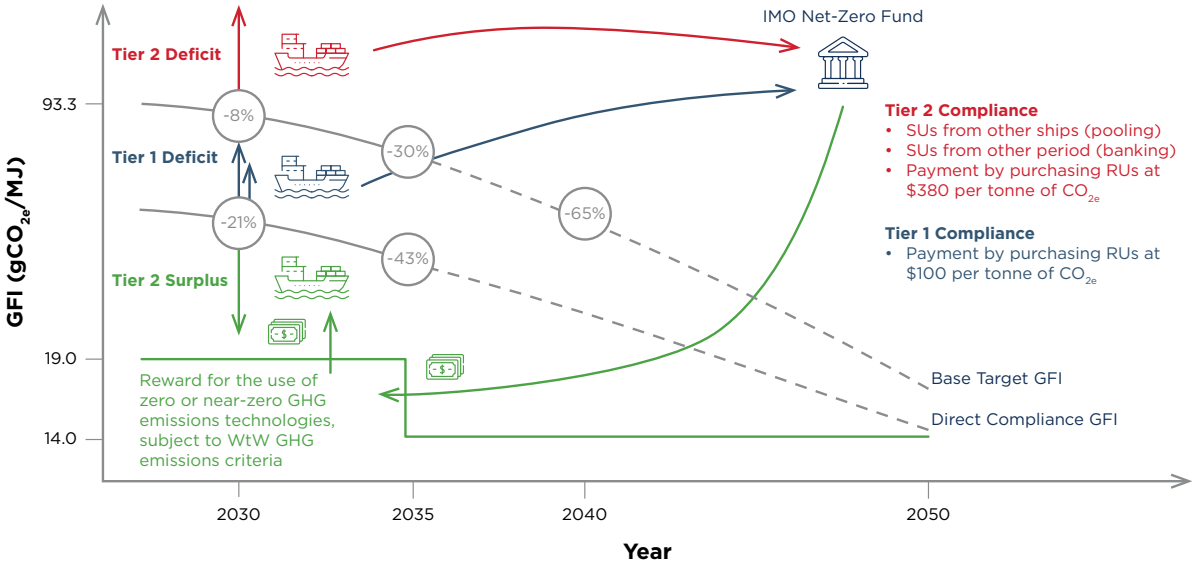
$Year_T$	Z_T for Base Target	Z_T for Direct Compliance Target
2028	4.0%	17.0%
2029	6.0%	19.0%
2030	8.0%	21.0%
2031	12.4%	25.4%
2032	16.8%	29.8%
2033	21.2%	34.2%
2034	25.6%	38.6%
2035	30.0%	43.0%

The 2040 Z-factor (ZT) for the base target has been set at 65% while by January 1, 2032, the Committee shall determine the ZT for the base and direct compliance targets for the years 2036 to 2040.

Annual GFI Compliance Approaches

At the end of each reporting period, each ship shall determine its GFI compliance balance.

- Ships with an attained GFI lower than the direct compliance target (GFI compliance balance equal to or greater than zero) shall be considered in direct compliance and be eligible to receive surplus units, expressed in tonne of CO2eq, for their positive compliance balance.
- Ships with an attained GFI higher than the direct compliance target but lower than the base target shall be considered in tier 1 deficit.
- Ships with an attained GFI higher than the base target shall be considered in tier 2 deficit.



A ship with a GFI compliance balance less than zero is to achieve compliance by balancing its deficit as follows:

- Tier 1 compliance deficit through remedial units acquired, priced at Tier 1 benchmark rates
- Tier 2 compliance deficit through one or more of the following GFI compliance approaches:
  - Surplus units transferred from other ships
  - Surplus units banked from previous reporting periods
  - Remedial units acquired, priced at Tier 2 benchmark rates

Remedial Units

For the reporting periods 2028 to 2030, the initial price of the remedial units will be:

- **Tier 1:** United States (U.S.) $100 per tonne of CO_{2eq} on a WtW basis
- **Tier 2:** U.S. $380 per tonne of CO_{2eq} on a WtW basis

By January 1, 2028, the Committee shall determine the mechanism for reviewing and defining the price of a Tier 1 and Tier 2 remedial unit for the reporting periods starting 2031 and onwards. The IMO Net-Zero Fund is to receive and manage GHG emissions pricing contributions made by ships and disburse collected revenue in support of decarbonization efforts in accordance with provisions on eligible entities.

IMO GFI Registry

Each ship is to have an account with the IMO GFI Registry by October 1, 2027. The IMO GFI Registry will record and issue statements on surplus units (credited, banked, transferred or cancelled), remedial units and their cancellation after payment. It will also track verified annual GFI, total energy use, zero/near-zero (ZNZ) fuel consumption and the Statement of Compliance for annual fuel intensity.

Uptake of ZNZ GHG Emission Technologies, Fuels and/or Energy Sources

ZNZ shall include technologies and fuels and be evaluated on a WtW basis. The GFI threshold for ZNZs shall be set at not greater than:

- 19 gCO_{2eq}/MJ for an initial period until December 31, 2034
- 14 gCO_{2eq}/MJ from January 1, 2035

Ships may receive rewards from the IMO Net-Zero Fund for the ZNZs used.

MEPC/ES.2 FOR CONSIDERATION OF ADOPTION OF THE IMO NET-ZERO FRAMEWORK

At an extraordinary session in 2025, the Marine Environment Protection Committee (MEPC) convened to consider the adoption of the revised MARPOL Annex VI (2025), a key regulatory instrument intended to operationalize the IMO NZF.

Despite extensive deliberations and the submission of a finalized draft text, consensus could not be reached among Member States. Key points of contention included the acceptance procedure (tacit vs. explicit), the inclusion of a clause recognizing the IMO NZF as the sole global mid-term measure for international shipping, and broader concerns over regional regulatory overlap and implementation timelines. Additionally, several delegations expressed concern over the potential impact on the maritime industry, particularly regarding increased compliance costs and administrative burdens, as well as the financial strain such measures can impose on nations.

Pursuant to Rule 31.1.2 of the Rules of Procedure of the Marine Environment Protection Committee, and following a roll call voting process, the Committee decided to adjourn the meeting for a period of one year. The motion to adjourn was adopted based on the majority view that further deliberations should be deferred to allow for additional consultations and preparatory work.

Deliberations on the adoption of the NZF will resume when the MEPC Extraordinary Session reconvenes in November 2026. Should the framework be adopted under the tacit acceptance procedure, it would enter into force 16 months thereafter.

PROPOSED ALTERNATIVE OPTIONS OR SUBSTANTIAL AMENDMENTS TO THE NZF

In light of the adjournment of MEPC ES.2 without agreement on the NZF, several submissions to MEPC 84 seek either to reshape the existing package or replace it with alternative approaches. Collectively, these papers reflect the main challenges in the negotiations, particularly around the IMO Fund, the stringency of fuel-intensity targets, technology neutrality, and the extent to which future measures should be tied to market readiness and political consensus.

MEPC 84/7/30 – Main Principles for an IMO Net-Zero Framework that can Enable Consensus

This paper, submitted by Algeria, Bahrain, Iraq, Kuwait, the Russian Federation, Saudi Arabia, Somalia, and the United Arab Emirates, does not propose a detailed replacement mechanism. Instead, it sets out the main principles that should guide any future IMO NZF.

Its central message is that the current NZF draft lacks sufficient consensus and should not move forward unless it better reflects the concerns of all Member States. The paper argues that any framework must be inclusive, practical, and technology-neutral, and must avoid favoring a narrow set of fuels or technologies before they are proven affordable and available at scale.

The submission also stresses the importance of equity, particularly for developing countries, and warns against measures that could harm trade, energy security, food security, or economic development. It is skeptical of punitive economic measures such as centrally imposed pricing mechanisms and instead favors innovation, cooperation, and capacity-building.

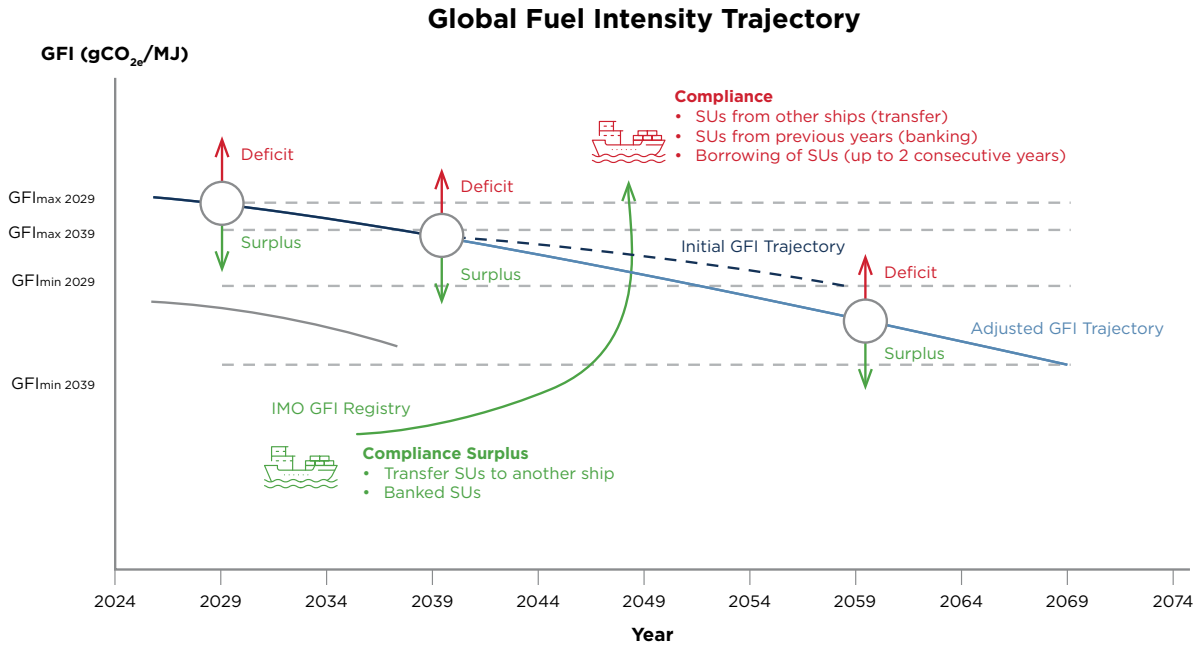
Overall, this is a principles-based alternative rather than a technical proposal. It is mainly a call to reset the discussion around consensus, flexibility, and neutrality.

MEPC 84/7/38 – Proposal for a Pragmatic Approach for the Reduction of GHG Emissions from Ships

Submitted by Argentina, Liberia, and Panama, this paper proposes a revised system based on Global Fuel Intensity (GFI) targets linked to the real-world availability of marine fuels.

The key idea is that future targets should be based only on commercially viable fuels, judged against three criteria: affordability, availability, and scalability. Rather than setting targets independently of market conditions, the proposal would align ambition with what the market can realistically deliver.

The framework includes compliance flexibilities such as banking, transfer, and limited borrowing of surplus units through an IMO registry. At the same time, it explicitly rejects an IMO Fund or any global revenue-raising mechanism.



The paper's main objective is to keep a global decarbonization framework while making it more practical, politically acceptable, and market-based proposing a structured alternative to the current NZF.

MEPC 84/7/41 – Comments on Document MEPC 84/7/30 Related to Principles and Approaches to Shipping Emissions Reduction

The United States submission argues that the current framework should be abandoned, rather than amended, because it would create major economic burdens and would push IMO beyond its proper role.

The paper strongly opposes any levy, tax, penalty, or fund under IMO control. It also calls for an energy-neutral approach that does not penalize particular fuels, and explicitly supports maintaining flexibility for LNG, biofuels, conventional fuels, and other energy options.

The U.S. argues that the NZF would disrupt trade and place unrealistic demands on fuel supply and the existing fleet. It also states that the IMO should not resume the previous negotiating track, but instead start again with new alternatives.

MEPC 84/7/49 – Comments on Document MEPC/84/7/14 (Report of the ISWG-GHG 20)

Japan's paper is a compromise proposal. Unlike the U.S. paper, it does not reject the NZF entirely; unlike the Argentina-Liberia-Panama paper, it does not replace it with a new system. Instead, it proposes targeted amendments to make the current framework more acceptable. Japan identifies two main issues:

- The perception that the IMO Fund operates like a global carbon tax, and
- Concerns that the proposed targets are too strict, especially for fuels such as LNG.

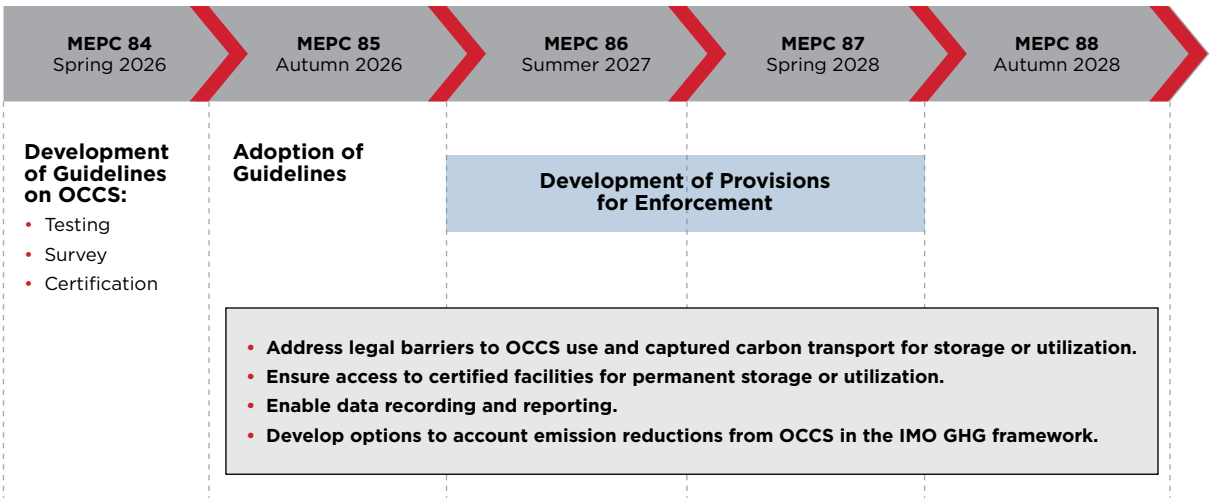
To address this, Japan proposes removing the mandatory payment feature by allowing compliance deficits to be met through surplus units rather than fund contributions. It also proposes adjusting future targets to better reflect expected transport demand, energy-efficiency gains, and fuel availability.

The paper emphasizes technology neutrality and argues that lifecycle fuel values, especially for LNG, should reflect the latest scientific evidence. Overall, it aims to preserve the NZF structure while reducing its most politically controversial elements.

WORK PLAN ON THE DEVELOPMENT OF REGULATORY FRAMEWORK FOR THE USE OF ONBOARD CARBON CAPTURE AND STORAGE (OCCS)

A comprehensive work plan has been initiated with the goal of establishing a regulatory framework for the safe and environmentally sound use of onboard carbon capture and storage (OCCS). The framework aims to support the reduction of net GHG emissions from ships without causing adverse environmental impacts, except for matters related to accounting of CO_2 captured on board ships. Completion is targeted for 2028, and the following tasks are of high priority:

- Identify and evaluate the environmental risks associated with various OCCS technologies deployed onboard ships
- Review the status of technological development of OCCS applications
- Formulate guidelines for testing, survey, and certification of OCCS, including necessary amendments to existing IMO instruments
- Define acceptable methods for the disposal or utilization of captured carbon to ensure environmental integrity
- Enforce compliance of onboard carbon capture systems with environmental standards, including updates to relevant regulations and guidelines



In parallel, for the safety concerns related to the OCCS, the MSC has already identified regulatory gaps and barriers in previous sessions. At MSC 110, the Committee instructed the Carriage of Cargoes and Containers (CCC) Sub-Committee to prioritize OCCS-related safety issues starting at CCC 12 (September 2026), with a mandate to address regulatory barriers and develop safety requirements for OCCS systems onboard ships.

Resolution MEPC.385(81) MEPC.1/Circ.913

ADOPTED BY IMO

AIR POLLUTION AND ENERGY EFFICIENCY

AMENDMENTS TO MARPOL ANNEX VI TO INCLUDE DATA ON TRANSPORT WORK AND ON ENHANCED LEVEL OF GRANULARITY IN THE IMO SHIP FUEL OIL CONSUMPTION DATA COLLECTION SYSTEM (DCS)

MEPC 81, with Resolution MEPC.385(81), adopted amendments to Appendix IX of MARPOL Annex VI, Information to be submitted to the *IMO Ship Fuel Oil Consumption Database (Regulation 27)*. These amendments make mandatory the reporting of the:

- Fuel oil consumption per consumer type (main engine(s), auxiliary engine(s), oil-fired boilers and others)
- Total amount of onshore power supplied expressed in kilowatt-hour (kWh)
- Fuel oil consumption per consumer type (main engine(s), auxiliary engine(s), oil-fired boilers and others) when the ship is not underway

In addition, there is a new entry to report the laden distance travelled – on a voluntary basis – and the installation of any innovative technology according to the 2021 *Guidance on Treatment of Innovative Energy Efficiency Technologies for Calculation and Verification of the Attained EEDI and EEXI* (MEPC.1/Circ.896).

Ships to which Regulation 28 of MARPOL Annex VI applies to shall also report the transport work using tonne-mile, twenty-foot equivalent unit-mile (TEU-mile) and/or passenger-mile data, whereas containerships especially must report both tonne-mile and TEU-mile data.

The amendments entered into force on August 1, 2025, but since this date would have fallen in the middle of the reporting period, resulting in two distinct levels of granularity for the data gathered in that calendar year, Flag Administrations were given the option by Unified Interpretation MEPC.1/Circ.913 of early implementation on January 1, 2025, or applying the new reporting requirements from January 1, 2026.

Additional information can be found on the ABS webpage Enhanced IMO DCS Reporting and SEEMP Update.

Resolution MEPC.400(83)

CARBON INTENSITY INDICATOR (CII) REDUCTION (Z%) FACTORS FOR 2027 TO 2030

MEPC 83 concluded the reduction factors for the required annual operational carbon intensity indicator (CII) for the years 2027 to 2030 as indicated in the table below and approved relevant resolution MEPC.400(83) – Amendments to the 2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factor guidelines, G3).

Year	Reduction Factor (Z%) Relative to 2019
2023	5%
2024	7%
2025	9%
2026	11%
2027	**13.625%**
2028	**16.25%**
2029	**18.875%**
2030	**21.5%**

GUIDELINES FOR TEST-BED AND ONBOARD MEASUREMENTS OF METHANE (CH_4) AND/OR NITROUS OXIDE (N_2O)

MEPC 83 adopted resolution MEPC.402(83) – Guidelines for test-bed and onboard measurements of methane (CH_4) and nitrous oxide (N_2O) emissions from marine diesel engines. The purpose of the Guidelines is to specify the protocol for test-bed and onboard measurements, calculation and reporting of CH_4 and N_2O emission values from marine diesel engines, as well as their documentation and verification. Shipping companies may diverge from the default CH_4 and N_2O emissions factors as defined in the 2024 LCA Guidelines, following the procedures described in the adopted guidelines. An IMO Correspondence Group is currently working on the development of associated *Guidelines for Engine Load Monitoring and Continuous Emissions Monitoring Systems* and associated measurement equipment technology and procedures which are expected to be submitted at MEPC 84 (April 2026) for approval.

CERTIFICATION OF ENGINES THAT OPERATE ON NON-CARBON-CONTAINING FUEL OR MIXTURES OF CARBON-CONTAINING AND NON-CARBON-CONTAINING FUELS

FINALIZED / SOON TO BE ADOPTED

The review and amendments of the NOx Technical Code (NTC 2008) to provide a means for certification of engines that operate on non-carbon-containing fuel or mixtures of carbon containing and non-carbon-containing fuels were finalized at PPR 13. Among other amendments such as definitions, test fuels, measurement and analyzer requirements etc., the draft amendments introduced the hydrogen-balance and oxygen-balance procedures to determine exhaust gas mass flowrate, to supplement the existing carbon-balance method. The draft amendments are to be submitted to MEPC 84 (April 2026) for approval and subsequent adoption at MEPC 85 (November 2026).

INSTALLATION OF P/V VALVES ON NEW CRUDE OIL TANKERS

During PPR 13, draft amendments to regulation 15 of MARPOL Annex VI and consequential amendments to the Form of International Air Pollution Prevention (IAPP) Certificate were finalized. These amendments introduce the requirement for new crude oil tankers to be fitted with P/V valves with a minimum opening pressure of 0.20 bar, in an effort to reduce VOC emissions from international shipping. The date for effective application of the new requirement is expected to correspond to the date of entry into force of the amendments. The draft amendments are to be submitted to MEPC 84 (April 2026) for approval and subsequent adoption at MEPC 85 (November 2026).

DESIGNATION OF SPECIAL AREAS: EMISSIONS CONTROL AREAS (ECA)

Approval of the Designation of the North-East Atlantic Ocean as an ECA for Sulfur Oxides (SO_X), Particulate Matter (PM) and Nitrogen Oxides (NO_X)

MEPC 83 approved the proposal to designate the North-East Atlantic Ocean as an emissions control area (ECA) for nitrogen oxide (NO_X) emissions under regulation 13, as well as sulfur oxides (SO_X) and particulate matter (PM) under regulation 14 of MARPOL Annex VI, with a view to adoption at the extraordinary MEPC session in October 2025.

SO_X and PM

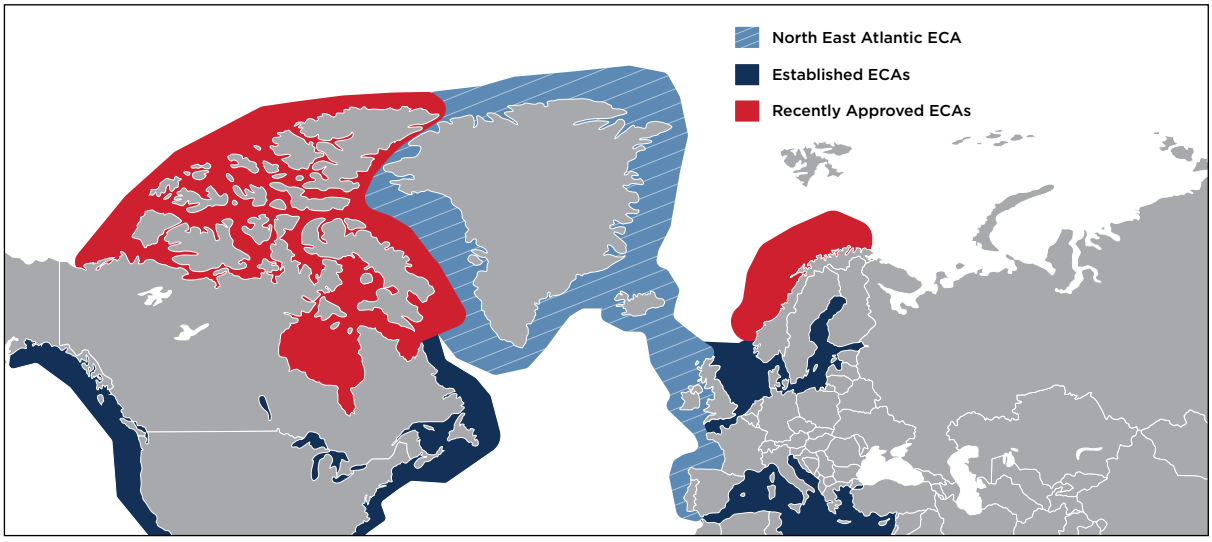
The North-East Atlantic Ocean ECA will impose a fuel oil sulfur content limit of 0.10 percent by mass.

NO_X

The North-East Atlantic Ocean ECA will apply to ships constructed on or after January 1, 2027, and operating in the ECA. Ships constructed on or after January 1, 2027, means a ship:

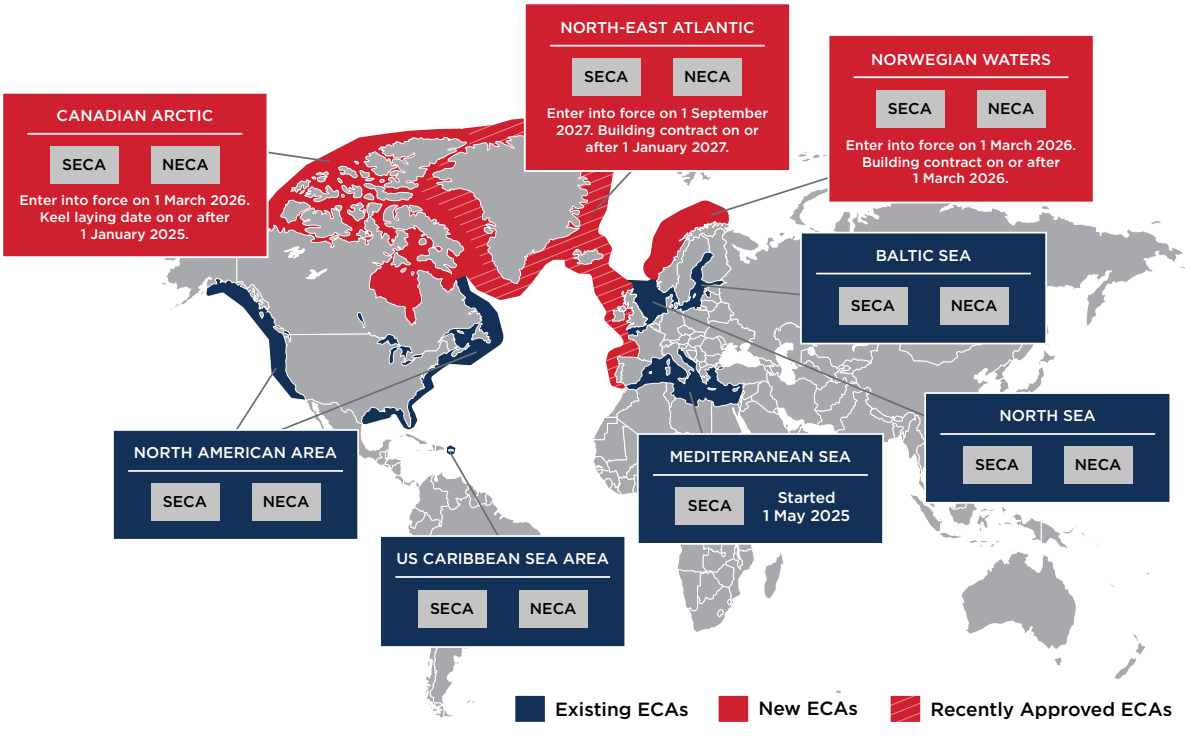
- For which the building contract is placed on or after January 1, 2027; or
- In the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after July 1, 2027; or
- The delivery of which is on or after January 1, 2031.

As the extraordinary MEPC/ES.2 session in October 2025 was not concluded, the amendments to MARPOL Annex VI to designate the North-East Atlantic Ocean as an ECA are expected to be submitted to MEPC 84 (April 2026) for adoption. Consequently, the anticipated earliest entry into force date for the North-East Atlantic Ocean ECA in accordance with the MARPOL Convention will likely be delayed until September 1, 2027 at a minimum.



The Canadian Arctic and Norwegian Sea have already been adopted as new ECAs with entry into force on March 1, 2026. Ships operating in these regions must comply with Tier III NO_x limits for engines above 130 kilowatts (kW) on vessels built after the specified dates. From March 1, 2027, these ECAs will also require the use of low-sulfur fuel (≤ 0.10%) or approved equivalent systems. Operators should plan for compliant fuel availability and ensure sufficient marine gas oil (MGO) tank capacity to meet these requirements during ECA transits.

In order to clarify the application date for a major conversion, PPR 13 agreed on a new unified interpretation (UI) of regulation 13 of MARPOL Annex VI. The draft UI clarifies that, for the newly designated ECAs using the three-date criteria system, the application date for a major conversion (which refers to the "time the ship was constructed") should also be determined using the three-date criteria instead of using the keel laying date. The new UI is expected to be submitted to MEPC 84 (April 2026) for approval.



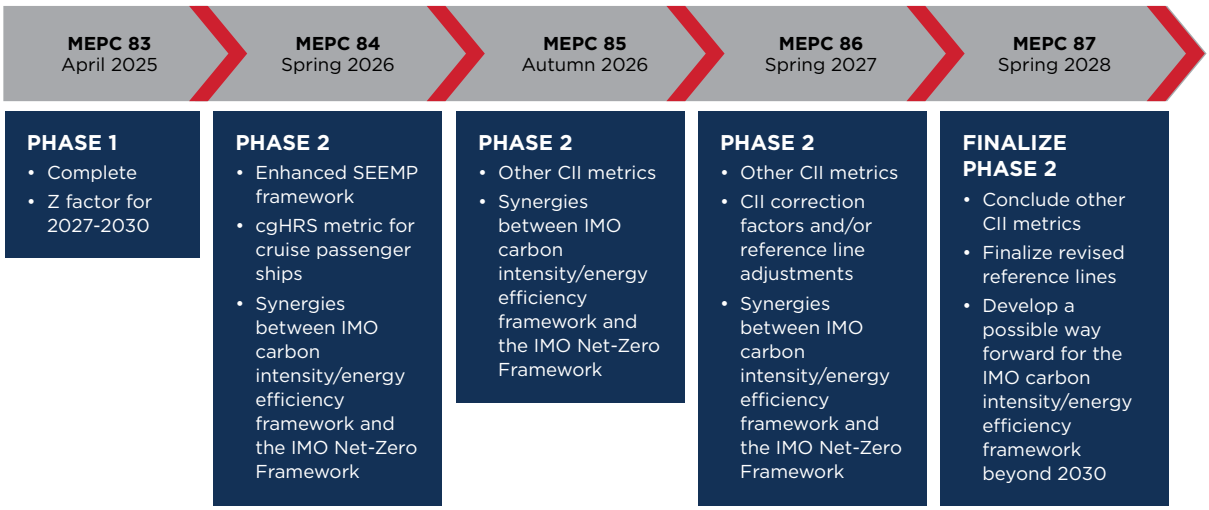
Additional information is available on the ABS webpage Emission Control Areas (ECAs).

WORK PLAN FOR PHASE 2 OF THE REVIEW OF THE SHORT-TERM GHG REDUCTION MEASURES

ONGOING DISCUSSION

At MEPC 81, the Committee agreed on advancing the review of the short-term GHG reduction measures by adopting a two-phase approach. Phase 1, addressing urgent issues like the CII reduction (Z%) factors, would conclude prior to January 1, 2026, while other matters, requiring deeper analysis or potentially clashing with developing mid-term measures, would be considered after that date, depending on their urgency and complexity, in Phase 2.

As Phase 1 concluded at the MEPC 83 session with a consensus on the CII reduction (Z%) factors, the Committee evaluated and completed the work plan for Phase 2 of the review of the short-term GHG reduction measure, outlined as follows:



MARINE BIOSAFETY

REVIEW OF THE BALLAST WATER MANAGEMENT CONVENTION

The Committee is advancing the review of the Ballast Water Management (BWM) Convention, with a full package of amendments to be approved at MEPC 84 and adopted at MEPC 85 in 2026. Given the wide scope of changes, the Committee agreed to adopt revised versions of the Convention and the BWMS Code, rather than individual amendments, to ensure clarity and consistency.

The topics subject to revision include:

1. Operation, Maintenance and Safety Manual (OMSM) content for BWMS and timing of OMSM approval
2. Definitions of major/minor components and modifications
3. BWMS testing parameters and test conditions
4. Applicability of Guidance on contingency measures
5. Consequential amendments to the ballast water record book (BWRB) due to BWMS maintenance log
6. Transition from regulation D-4 to regulation D-2: Survey scheme, guidance
7. Standardization of BWMS data logs and export files: Data exchange standard
8. PSC initial checklist: Review of BWMS maintenance, operation and alarm logs
9. Mandatory crew training requirements: New guidance to enhance familiarization with BWMS

A Correspondence Group has been re-established to finalize the draft amendments to mandatory provisions of the Convention (regulations and appendices in the Annex to the Convention, and BWMS Code) for submission to MEPC 84 for approval, with a view to adoption by MEPC 85. Work on revising and developing non-mandatory guidelines will continue through 2028, depending on available time and resources. The revision of existing and development of new guidelines is expected to be completed ahead of the amendments' entry into force.

Resolution MEPC.404(83)

ADOPTED BY IMO

POLLUTION PREVENTION

2025 ACTION PLAN TO ADDRESS MARINE PLASTIC LITTER FROM SHIPS

In 2018, MEPC 73 adopted the Action Plan to Address Marine Plastic Litter from Ships (Resolution MEPC.310(73)). Subsequently, in 2021, MEPC 77 adopted the Strategy to Address Marine Plastic Litter from Ships (Resolution MEPC.341(77)), with an agreement to review the Action Plan in 2025.

In this regard, MEPC 83 adopted resolution MEPC.404(83), introducing the 2025 Action Plan to Address Marine Plastic Litter from Ships. This plan includes a review of the actions from the initial action plan and the revised actions targeted for completion by 2030, aiming to achieve the following outcomes:

1. Reduction of the contribution from fishing vessels to marine plastic litter
2. Reduction of shipping's contribution to marine plastic litter
3. Improvement of the effectiveness of port reception facilities and treatment in reducing marine plastic litter
4. Enhanced public awareness, education and seafarer training.
5. Improved understanding of the contribution of ships to marine plastic litter
6. Strengthened international cooperation

Under the outcome "Reduction of shipping's contribution to marine plastic litter", a dedicated action for the development of mandatory measures to reduce the environmental risks of plastic pellets transported by sea in freight containers is being considered. PPR 13 concluded a recommendation to MEPC for the development of a new mandatory code under MARPOL Annex III and/or SOLAS.

This plan will be superseded by a single resolution that combines the revised Strategy and the 2025 Action Plan, finalized at PPR 13, and subject to adoption by MEPC 84 .

MEPC.1/Circ.899
MEPC.1/Circ.900

ONGOING DISCUSSION

DEBATE ON WATER DISCHARGED FROM EXHAUST GAS CLEANING SYSTEMS

The IMO is discussing the environmental risks of discharging water from exhaust gas cleaning systems (EGCS) into the aquatic environment. Some delegations call for a global ban on open-loop scrubbers, while others oppose it.

The first formal IMO submissions highlighting potential environmental risks were made at MEPC 74 (May 2019). To address the potential risks, MEPC 77 (November 2021) approved a work output on the discharge of water from EGCS, consisting of four parts as follows:

- **Part 1: Risk and Impact Assessment**
  - The IMO work on part 1, concluded with the issuance of MEPC.1/Circ.899, which provides Member States with a recommended methodology on risk and impact assessments for EGCS discharge water when considering local or regional regulations.
- **Part 2: Delivery of EGCS Residues**
  - The IMO work on part 2, concluded with the issuance of MEPC.1/Circ.900, which addresses the delivery of EGCS residues to port reception facilities.
- **Part 3: Regulatory Matters (Open)**
  - Assess the state of technology for EGCS discharge water treatment and control.
  - Identify and develop regulatory measures and instruments as appropriate.
  - Develop a database of local/regional restrictions or conditions on EGCS discharge water.
- **Part 4: Database of Substances Identified in EGCS Discharge Water (Open)**

The Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) Task Team on EGCS has been re-established to propose a standard methodology for developing data sets and calculating emission factors. These emission factors are essential for port States to conduct EGCS-related environmental risk assessments, as recommended in MEPC.1/Circ.899. The Task Team intends to submit its final report to PPR 14.

The 13th meeting of the PPR Sub-Committee considered a proposal to allow coastal States to request additional associated protective measures (APMs) to restrict EGCS discharges in Particularly Sensitive Sea Areas (PSSA). PPR 13 invited further submissions to PPR 14 of new concrete proposals on appropriate measures to control discharges of EGCS discharge water.

For information regarding regional restrictions on EGCS discharges, please refer to the Regional Developments section..

IMO MARITIME SAFETY

SAFETY AND CONSTRUCTION

ADOPTED BY IMO

Resolution MSC.572(110)

AMENDMENTS TO SOLAS CHAPTER V, REGULATION 23 ON PILOT TRANSFER ARRANGEMENTS

MSC 110 adopted amendments to the International Convention for the Safety of Life at Sea (SOLAS) Chapter V, Regulation 23 applying to pilot transfer arrangements installed on or after January 1, 2028 (Resolution MSC.572(110)). These shall be designed, manufactured, constructed, secured, and installed in accordance with the introduction and parts A (Design, Manufacture and Construction), B (Rigging), and C (Installation of pilot ladder winch reels) of the performance standards adopted by the Committee (Resolution MSC.576(110)).

The expression "installed on or after January 1, 2028" means a contractual delivery date for the pilot transfer arrangement or, in the absence of a contractual delivery date, the actual delivery date of the arrangement to the ship on or after January 1, 2028.

The new Regulation 23 and performance standards (Parts A, B, and C) also apply retroactively to pilot transfer arrangements installed before January 1, 2028 as follows:

- SOLAS ships shall comply not later than the first survey on or after January 1, 2029
- Non-SOLAS ships shall comply not later than January 1, 2030.

Additionally, from January 1, 2028, all pilot transfer arrangements, regardless of their installation date, must be stowed, maintained, inspected, operated, and replaced in accordance with parts D (Operational Readiness, Onboard inspection and maintenance) and E (Familiarization) of the new performance standards.

Finally, the Committee adopted MSC.1/Circ.1690 *Voluntary Early Implementation of Amendments to SOLAS V/23 on Pilot Transfer Arrangements* to encourage the implementation of the amendments prior to the entry-into-force date.

MSC.1/ Circ.1331/Rev.1

GUIDELINES FOR CONSTRUCTION, INSTALLATION, MAINTENANCE AND INSPECTION/ SURVEY OF MEANS OF EMBARKATION AND DISEMBARKATION

The revision to the G*uidelines for Construction, Installation, Maintenance and Inspection/Survey of Means of Embarkation and Disembarkation* (MSC.1/Circ.1331, Rev.1) provides specific requirements for ladders and gangways and explicitly outlines which version of the Guidelines should be used when replacing accommodation ladders.

For on-board measures, the amendments outline several key changes regarding safety measures for rigging accommodation ladders, gangways and safety nets. Crew members are required to wear life jackets and safety harnesses during these tasks. A safety net is not necessary if proper mitigation strategies (such as rigid top railings and side nets) are implemented to prevent falls. Safety nets should be stored properly and checked regularly for maintenance. Additionally, safety pins, side nets and securing points must be inspected during annual surveys as per SOLAS regulations. Accommodation ladders and gangways are required to undergo static testing for maximum working loads every five years, and winches must be tested by raising and lowering a ladder during these surveys.

With regards to the application of international standards for the design and construction of accommodation ladders, winches and gangways, manufacturers will need to review the design to meet recognized standards based on either the ship's construction date or the installation date of the accommodation ladder or gangway.

The term "installed on or after July 1, 2026" means that the amendments will apply to:

- Ships for which the building contract is placed on or after July 1, 2026, or in the absence of the contract, the keels of which are laid or which are at a similar stage of construction on or after July 1, 2026, any installation date on the ship; or
- Ships other than those ships prescribed above, a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery date of the equipment to the ship on or after July 1, 2026.

Accommodation Ladders and Gangways for Means of Embarkation and Disembarkation				
Ship Constructed	**On or after January 1, 2010**		**Before January 1, 2010**	
Installed	Before July 1, 2026	On or After July 1, 2026	Before July 1, 2026	On or After July 1, 2026
ISO 5488:1979				
ISO 5488:2015				
ISO 7061:1993				
ISO 7061:2015				
ISO 7061:2024				

Construction and Test of Accommodation Ladder Winches				
Ship Constructed	**On or after January 1, 2010**		**Before January 1, 2010**	
Installed	Before July 1, 2026	On or After July 1, 2026	Before July 1, 2026	On or After July 1, 2026
ISO 7364:1983				
ISO 7364:2016				

RECOMMENDATIONS FOR ENTERING ENCLOSED SPACES ABOARD SHIPS

The newly adopted resolution MSC.581(110) updates Assembly Resolution A.1050(27) on *Revised Recommendations for Entering Enclosed Spaces Aboard Ships* and includes the following sections:

- Safety Management for Entry into Enclosed Spaces section providing training and knowledge recommendations for the competent person, and requirements for drills
- Identification of the Hazards and Assessment of Risks section, along with updated guidance for the development of an Enclosed Space Register
- General Precautions section emphasizing the need for a risk assessment prior to cargo operations, and setting minimum oxygen limits and training requirements for personnel entering enclosed spaces
- Testing the Atmosphere, referring to detection equipment and testing instruments as required by SOLAS
- Update to the Oxygen Depleting Cargoes and Materials section
- Information on acceptable and unacceptable gases moved to a new Appendix 4
- Revision of the Hazards Related to Steel section with a new Appendix 3 providing results of steel related experiments

The example of the Enclosed Space Register was removed from the revised recommendation, leaving it to the company to develop its own registry, along with the risk assessment, to form the basis for the development of the enclosed space contingency plan. The revised recommendations also contain an updated example of an Enclosed Space Entry Permit, and an Enclosed Space Emergency Response Plan.

The new resolution was endorsed by Assembly 34 and entered into effect on December 3, 2025, upon which resolution A.1050(27) was revoked and replaced with the new Recommendations MSC.581(110).

Additional information can be found in the ABS Regulatory News Confined Space Entry.

NEW SOLAS REGULATIONS FOR ONBOARD LIFTING APPLIANCES AND ANCHOR HANDLING WINCHES (OLAW)

The IMO adopted Resolution MSC.532(107) amending the SOLAS Convention to introduce new requirements for lifting appliances and anchor handling winches under SOLAS regulations II-1/2 and II-1/3-13. These regulations apply to both new and existing ships.

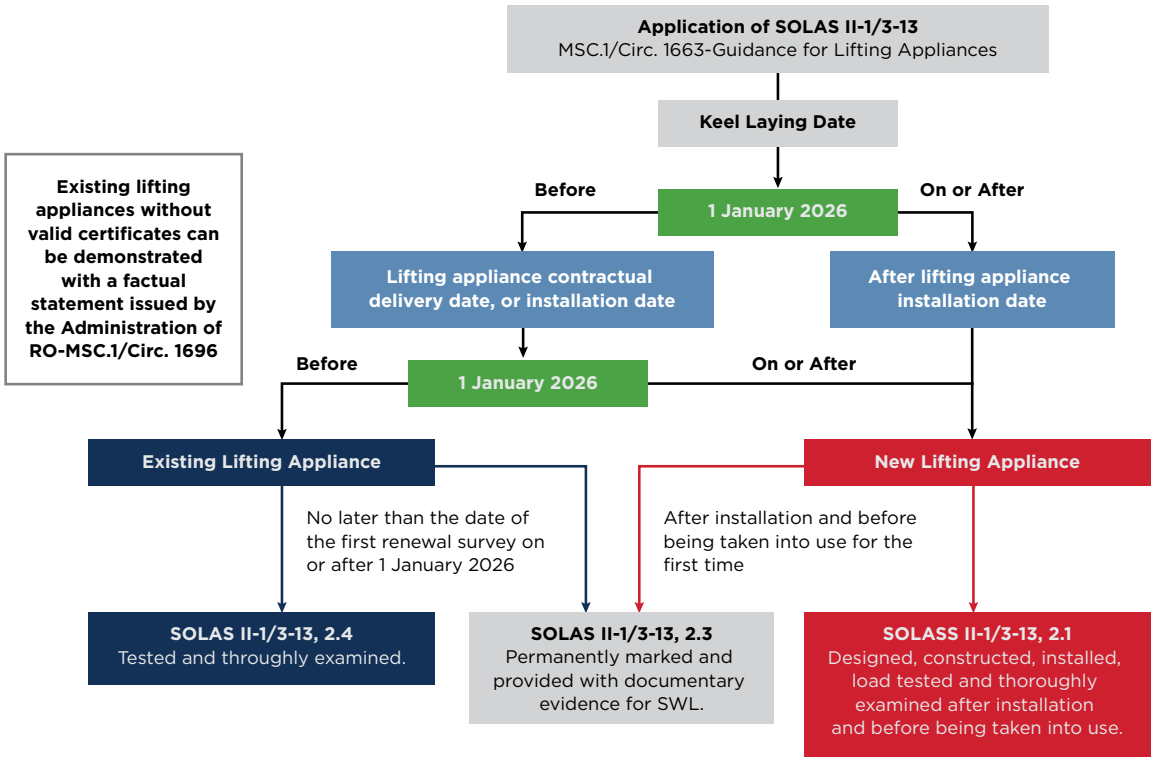
The new regulations prescribe requirements for the design, construction and installation of lifting appliances and anchor handling winches.

- **Lifting Appliances:** Defined as all load-handling equipment on ships, including cranes for handling cargo, stores, hatch covers, engine-room equipment, cargo hoses, tender boats and personnel (via cranes).
- **Anchor Handling Winches:** These winches, distinct from a ship's windlasses, are used for deploying, recovering, and repositioning anchors and mooring lines during subsea operations.

Irrespective of the installation date, all lifting appliances and anchor handling winches must undergo operational testing, thorough examination, inspection and maintenance. New installations of both lifting appliances and anchor handling winches will be required to meet the requirements of a classification society or standards acceptable to the Administration.

Exemptions from the new regulation include, but are not limited to, lifting appliances on mobile offshore drilling units (MODUs) and lifesaving launching appliances under the International Life-Saving Appliance (LSA) Code. Existing equipment must be tested by the first renewal survey after the amendment enters into force.

Lifting Appliance Application



The Maritime Safety Committee approved Guidelines to ensure a uniform approach to SOLAS regulation II-1/3-13 as follows:

Circular	Title
MSC.1/Circ.1663	*Guidelines for Lifting Appliances* • Recommendations for design and testing • Guidance on operations and record-keeping through a register of lifting appliances to be kept on board • Addresses loose gear utilized with lifting appliances and recommends a proof test and thorough annual examination of this equipment
MSC.1/Circ.1662	*Guidelines for Anchor Handling Winches* • Provides design, testing and maintenance recommendations • Addresses both anchor handling winches and associated loose gear

The new regulations as per Resolution MSC.532(107) entered into force as of January 1, 2026.

Additional information is available on the ABS webpage SOLAS Requirements for Lifting Appliances and Anchor Handling Winches.

PROHIBITION OF FIRE-FIGHTING FOAMS CONTAINING PFOS ONBOARD SHIPS

MSC 107 adopted Resolutions MSC.532(107) amendments to SOLAS Chapter II-2 and Resolutions MSC.536(107) and MSC.537(107) amendments to the International Code of Safety for High-Speed Craft (HSC Code) (1994 and 2000) to introduce the prohibition of use or storage of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for firefighting on board ships.

Perfluorooctane sulfonic acid has been deemed hazardous to the marine environment and human beings, and this prohibition will apply to both fixed and portable systems. This prohibition is being introduced into SOLAS and the HSC Codes by the addition of a new section "Fire Extinguishing Media Restrictions" in each respective text, so that it will be easier to include future prohibitions or limitations of extinguishing media shown to be dangerous to people and the environment.

This prohibition will be applicable to both new and existing ships and include prohibiting the use or storage of extinguishing media containing PFOS no later than the date of the first survey on or after January 1, 2026, and delivering the prohibited substances to appropriate shore-based reception facilities when removed from the craft.

Additional information can be found on the ABS webpage Prohibition of PFOS/PFOA in Fire-Extinguishing Media.

DEVELOPMENT OF GUIDELINES FOR EMERGENCY TOWING ARRANGEMENTS FOR SHIPS OTHER THAN TANKERS

MSC 108 adopted by resolution MSC.549(108) amendments to SOLAS regulation II-1/3-4 relating to interim requirements for new ships of all types other than tankers of not less than 20,000 gross tonnage to be fitted with emergency towing arrangements (ETAs), which will enter into force on January 1, 2028. At MSC 110, the Committee approved MSC.1/Circ.1691 *Interim Guidelines for Emergency Towing Arrangements on Ships other than Tankers*, as well as the draft revision of MSC.1/Circ.1175 Revised *Guidance on Shipboard Towing and Mooring Equipment*, to be circulated as Rev.2.

The interim guidelines are intended to provide standards for design and construction of ETAs and set out the requirements for the arrangements and components, strength of the towing components and ready availability of towing arrangements including time for deployment. The revision of MSC.1/Circ.1175 provides updated requirements for the minimum breaking load for towing lines, and an amended calculation for the Equipment Numeral (EN) accounting for above main deck structures, and in particular projected areas of funnels.

In addition, the Committee approved amendments to the *Guidelines for Owners/operators on Preparing Emergency Towing Procedures* (MSC.1/Circ.1255), including minor amendment to include the EN in the ship-specific data.

The *Interim Guidelines for Emergency Towing Arrangements on Ships other than Tankers* (MSC.1/Circ.1691) has been approved by MSC 110 (June 2025).

ESCAPE ROUTES FROM BELOW THE BULKHEAD DECK AND THE LOCATION OF THE ESCAPE TRUNK

FINALIZED / SOON TO BE ADOPTED

In the context of port state control (PSC) inspections, MSC 110 noted the existence and impact of divergent interpretations of SOLAS regulations II-2/13.4.1 and 13.4.2, regarding the term "lower part" used in connection with the means of escape from spaces below the bulkhead deck for passenger ships, and from category A machinery spaces for cargo ships. In light of the inconsistent interpretation of the term “lower part”, MSC 110 had approved circular MSC.1/Circ.1689 recalling the responsibility of flag States to approve the relevant arrangements in compliance with SOLAS regulations II-2/13.4.1 and 13.4.2, and that the PSC officer (PSCO) should in principle accept the design arrangement approved by the flag State and when appropriate consult with the flag Administrations in accordance with the Procedures for Port State control, 2023 (resolution A.1185(33)).

SDC 11 had confirmed that the terms "lower part of the space" should be regarded as either the lowest deck level or a platform or passageway.

During the discussions in SDC 12, the Sub-Committee noted the approach to approval of escape arrangements in accordance with SOLAS regulations II-2/13.4.1.1 and 13.4.2.1, their safe use over more than four decades, and that there was absence of clear evidence of any safety concerns. Consequently, the Sub-Committee decided that no changes to the SOLAS regulations were necessary and considered that this agenda item was to be closed out.

Following the closing-out of this agenda item, the Sub-Committee recommended that MSC 111 revoke MSC.1/Circ.1689.

GUIDELINES FOR USE OF FIBER-REINFORCED PLASTICS (FRP) WITHIN SHIP STRUCTURES

Fiber Reinforced Plastic (FRP) composite is a lightweight material composition with high strength to weight ratio and corrosion resistance compared to steel. However, a key issue when considering combustible FRP elements within ship structures is fire safety.

The SDC 12 Sub-Committee finalized the revision to the Draft *Revised Interim Guidelines for the Use of Fiber Reinforced Plastic (FRP) Elements Within Ship Structures: Fire Safety in order to facilitate the safe use of FRP elements in shipbuilding*. The Interim Guidelines should be used as a supplement to the Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments (MSC.1/Circ.1455) and the Guidelines on alternative design and arrangements for fire safety (MSC.1/Circ.1002, as amended by MSC.1/Circ.1552) when approving FRP elements within ship structures.

The Interim Guidelines address FRP elements for non-load-bearing elements, load-bearing elements not contributing to global strength, and load-bearing elements contributing to global strength. They are to be used to assess fire safety of FRP elements structures for fire hazards such as probability of ignition; fire growth potential; potential to generate smoke and toxic products; containment of fire; firefighting; and structural integrity. Additionally, they provide guidance on operational matters such as onboard training and drills, carriage of dangerous goods, casualty threshold and safe return to port.

The Revised Interim Guidelines for the Use of FRP Elements within Ship Structures will be submitted to MSC 111 (May 2026) for approval.

DRAFT GUIDELINES ON THE USE OF REMOTE INSPECTION TECHNIQUES (RIT) — AMENDMENTS TO 2011 ESP CODE

The SDC 12 Sub-Committee finalized draft guidelines on the use of remote inspection techniques (RIT) for ESP Code surveys. The new guidelines adopt a goal-based approach, providing comprehensive guidance on the application of RIT in the ESP Code surveys including RIT thickness measurement capabilities, guidance on the use of RIT for surveyors, ships' personnel, firms using RIT and for manufacturers of RIT, validation and verification of RIT equipment capability (ashore and on board ships), certification of RIT equipment, and training of personnel of RIT firms and surveyors.

The annexes and appendix to the guidelines provide:

- Annex 1: sample form of an RIT inspection plan
- Annex 2: RIT pre-inspection verification card to confirm equipment is pre-calibrated
- Annex 3: sample report form for RIT firm inspections
- Annex 4: technical provisions, assessment and certification of remote inspection techniques (RIT) systems
- Appendix: provisional sample form on RIT system statement of capability following the assessment by an Administration

While the Draft guidelines on the use of remote inspection techniques (RIT) for ESP Code surveys are to enter into force on 1 January 2028, the Sub-Committee recommended MSC 111 to invite early implementation by Administrations to facilitate consistent application of the draft guidelines on RIT.

The finalized draft guidelines are to be submitted to the Committee for concurrent approval with the adoption of the associated draft amendments to the 2011 ESP Code at MSC 111 (May 2026).

DEVELOPMENT OF DESIGN AND PROTOTYPE TEST REQUIREMENTS FOR THE ARRANGEMENTS USED IN THE OPERATIONAL TESTING OF FREE-FALL LIFEBOAT RELEASE SYSTEMS WITHOUT LAUNCHING THE LIFEBOAT

MSC 110 approved amendments to the LSA Code by introducing a new paragraph 4.7.7 on lifeboat release testing. For each free-fall lifeboat installed, the arrangement to test the release system under load without launching the lifeboat into the water, in accordance with paragraph 4.7.6.4, shall be designed with a safety factor of at least six on the basis of the calculated maximum working load with full complement of persons and equipment, considering the ultimate strength of the materials used for its construction and subject to the relevant static and dynamic loads. Components of this arrangement that are exposed to the marine environment, other than falls and temporarily installed equipment, shall be constructed from materials that are corrosion-resistant in the marine environment without the need for coating or galvanizing.

Consequential amendments were made to:

- Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances, and Release Gear (Resolution MSC.402(96))
- Revised Recommendation on Testing of Life-Saving Appliances (Resolution MSC.81(70))
- Emergency Training and Drills and Specifically Abandon Ship Drills (SOLAS Regulation III/19.3.4.4)
- Revised Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems
- Revised Guidelines on Safety During Abandon Ship Drills Using Lifeboats
- Unified Interpretations of Paragraph 4.4.7.6 of the LSA Code
- Revised Standardized Life-Saving Appliance Evaluation and Test Report Forms (Survival Craft)

The draft amendments are expected to apply for each free-fall lifeboat installed on or after January 1, 2031.

Next Steps: The amendments will be presented at MSC 111 (May 2026) for adoption.

DRAFT INTERIM GUIDELINES FOR THE USE OF AMMONIA CARGO AS FUEL

FINALIZED / SOON TO BE APPROVED

CCC 11

The purpose of the Interim guidelines for use of anhydrous ammonia cargo as fuel is to provide unified and specific guidance for gas carriers as defined in SOLAS regulation VII/11.2 using ammonia cargo as fuel and complying with the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code). The draft Interim guidelines are a supplement to the existing provisions of chapter 16 of the IGC Code and are applicable outside the cargo area in accordance with 16.4.1.1 of the IGC Code.

The interim guidelines are a goal-based document that provides guidance on safe and reliable operation of fuel supply systems and consumers for use of ammonia cargo as fuel. The guidelines provide for a risk assessment of the entire ammonia fuel system design and arrangements to document that the same level of safety as natural gas is achieved. More specific requirements are given for arrangements of spaces containing ammonia fuel consumers, ammonia fuel supply, fuel plant ventilation and liquid/gas detection, alarms and shutdowns, and combustion equipment.

Next Steps: The Interim *Guidelines for the use of Ammonia Cargo as Fuel* will be submitted to MSC 111 (May 2026) for approval.

DRAFT INTERIM GUIDELINES FOR THE SAFE USE OF HYDROGEN AS FUEL

CCC 11

Continuing the work from previous sessions, the CCC Sub-Committee finalized the *Draft Interim Guidelines for Ships using Hydrogen as Fuel.*

The outstanding chapters of the draft guidelines were completed, related to:

- Definitions
- Fuel supply to consumers, power generation including propulsion and other fuel consumers
- Fire safety, explosion prevention
- Ventilation, electrical installations
- Control, monitoring and safety systems
- Manufacture, workmanship and testing
- Drills and emergency exercises, operation, and personnel protection

The basic philosophy of these Interim Guidelines is to provide provisions for the arrangement, installation, control, and monitoring of machinery, equipment, and systems using hydrogen as fuel in order to minimize the risk to the ship, persons on board, and the environment. The guidelines follow the goal-based approach and have been aligned with the International Code of Safety for Ships Using Gases or Other Low-flashpoint Fuels (IGF Code).

Next Steps: The Interim Guidelines for ships using Hydrogen as Fuel will be submitted to MSC 111 (May 2026) for approval.

WORK PLAN FOR THE DEVELOPMENT OF SAFETY PROVISIONS FOR SHIPS USING NEW TECHNOLOGIES AND ALTERNATIVE FUELS

ONGOING DISCUSSION

MSC 110

MSC 110 had tasked the sub-committees to develop a holistic work plan to assess the gaps and barriers, and to identify the instruments that might need to be amended in their work on the development of a safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels. Following these instructions, both CCC and SDC Sub-Committees prepared a work plan for the development of the safety regulatory framework. CCC Sub-Committee is focused on the safety regulatory framework for ships using Alternative fuels, while the SDC Sub-Committee for ships using New Technologies..

Regarding the CCC Sub-Committee, the developed work plan prioritizes tasks, taking into consideration related planned, ongoing or completed work; and prioritizing removing regulatory barriers over filling gaps identified by the Working Group on GHG Safety. In particular, the work plan identified tasks as having high priority: a) OCCS, and b) further development/finalization revision of interim guidelines for safety of ships using methyl/ethyl alcohol as fuel, giving this task higher priority than the interim guidelines for safety of ships using low-flashpoint oil fuels.

IMO Guideline	2023	2024	2025	2026	2027	2028	2029	2030
	CCC9	CCC10	CCC11	CCC12	CCC13	CCC14	CCC15	CCC16
Interim Guidelines for Ammonia as Fuel								
Interim Guidelines for Ammonia Cargo as Fuel								
Interim Guidelines for Hydrogen as Fuel								
Revised Interim Guidelines for Methanol/Ethanol as Fuel								
Interim Guidelines for Low-flashpoint Oil Fuels								
Revised Interim Guidelines for Fuel Cell Power Installations								
Interim Guidelines for OCCS								
Revised Interim Guidelines for Ammonia as Fuel								
Revised Interim Guidelines for LPG as Fuel								

Figure 1: CCC Work Plan for the development of safety provisions for alternative fuels

IMO Guideline	2023	2024	2025	2026	2027	2028	2029	2030
	MSC107	MSC109	MSC110	MSC111	MSC113	MSC114	MSC116	MSC117
Interim Guidelines for Ammonia as Fuel								
Interim Guidelines for Hydrogen as Fuel								
Interim Guidelines for Ammonia Cargo as Fuel								
Interim Guidelines for Low-flashpoint Oil Fuels								
Revised Interim Guidelines for Methanol/Ethanol as Fuel								
Revised Interim Guidelines for Fuel Cell Power Installations								
Interim Guidelines for Onboard Carbon Capture (OCCS)								
Revised Interim Guidelines for LPG (MSC.1/Circ. 1666)								
Revised Interim Guidelines for Ammonia as Fuel								

Figure 2: MSC Work Plan for the development of safety provisions for alternative fuels (based on CCC Work Plan)

The SDC Sub-Committee progressed the revision of the work plan for the development of a safety regulatory framework to support further work on nuclear power, wind propulsion and wind assisted power, *and lithium-ion batteries.*

Action	2026	2027	2028	2029	2030
	SDC12	SDC13	SDC14	SDC15	SDC16
Development of Work Plan and Prioritization					
Batteries as the Main Electrical Power Source: SOLAS II-1/42 Amendments					
Lithium-ion Batteries Containers in Ship's Enclosed Spaces					
Installation Requirements for a Safety Approval Plate in Battery Containers					
Storage and Safety Requirements for Lithium Batteries in a Battery Container					
Interim Guidelines for Wind Propulsion and Wind-assissted Power					
Revision of SOLAS Chapter VIII and Nuclear Code					

Figure 3: SDC Work Plan for the development of safety provisions for ships using New Technologies

Action	2026	2027	2028	2029	2030
	MSC111	MSC113	MSC114	MSC116	MSC11X
Endorsement of Developed Work Plan					
Approval and Adoption of SOLAS II-1/42 Amendments					
Approval of Interim Guidelines for Wind Propulsion and Wind-assisted Power					
Approval of SOLAS Chapter VIII Amendments					
Approval of SOLAS Chapter VIII Amendments and Revised Nuclear Code					

Figure 4: MSC Work Plan for the development of safety provisions for ships using New Technologies (based on SDC Work Plan)

TECHNOLOGY AND AUTOMATION

ONGOING DISCUSSION

DEVELOPMENT OF VOLUNTARY GOAL-BASED MASS CODE

The IMO is taking steps to regulate Maritime Autonomous Surface Ships (MASS) and has approved a report on a non-mandatory International Code of Safety for MASS. Key discussions focused on clarifying terminology between "MASS" and "Remote Operation." The draft MASS Code will apply to cargo ships under SOLAS, with safe operation responsibility remaining with the Company, as defined under the ISM Code (i.e. the owner or any other organization or person that has assumed responsibility for the operation of the ship). The IMO agreed to the revised roadmap or developing a goal-based code for MASS, with a view to further revision when necessary. It was agreed to retain MSC 111 (2026) as the target for finalization and adoption of the non-mandatory MASS Code.

Table of Contents of the Draft MASS Code

PART 1 Introduction		PART 2 Main Principles of MASS Code and MASS Functions		PART 3 Goals, Functional Requirements and Expected Performance	
Chapter 1	Purpose, Principles and Objectives	Chapter 5	Certificate and Survey	Chapter 17	Safety of Navigation
Chapter 2	Application	Chapter 6	Approval Process	Chapter 18	Remote Operations
Chapter 3	Code Structure	Chapter 7	Risk Assessment	Chapter 19	Structure, Subdivision, Stability and Watertight Integrity
Chapter 4	Terminology and Definitions	Chapter 8	Operational Context	Chapter 20	Fire Protection, Fire Detection and Fire Extinction
		Chapter 9	System Design	Chapter 21	Life-Saving Appliances and Arrangements
		Chapter 10	Software Principles	Chapter 22	Special Measures to Enhance Maritime Security
		Chapter 11	Management of Safe Operations	Chapter 23	Search and Rescue
		Chapter 12	Connectivity	Chapter 24	Cargo Handling
		Chapter 13	Radio Communications	Chapter XX	Personnel Safety and Comfort
		Chapter 14	Alert Management	Chapter 25	Towing and Mooring
		Chapter 15	Human Element	Chapter 26	Machinery Installations
		Chapter 16	Maintenance and Repair	Chapter 27	Electrical Installation
				Chapter 28	Emergency Response

Road Map for Developing a Goal-Based Code for Maritime Autonomous Surface Ships (MASS)

MASS-ISWG 4 — 2025 Second Half

- Further develop the MASS Code

MSC 111 — 2026 May

- Finalization and adoption of the MASS Code

MSC 112 — 2026 December

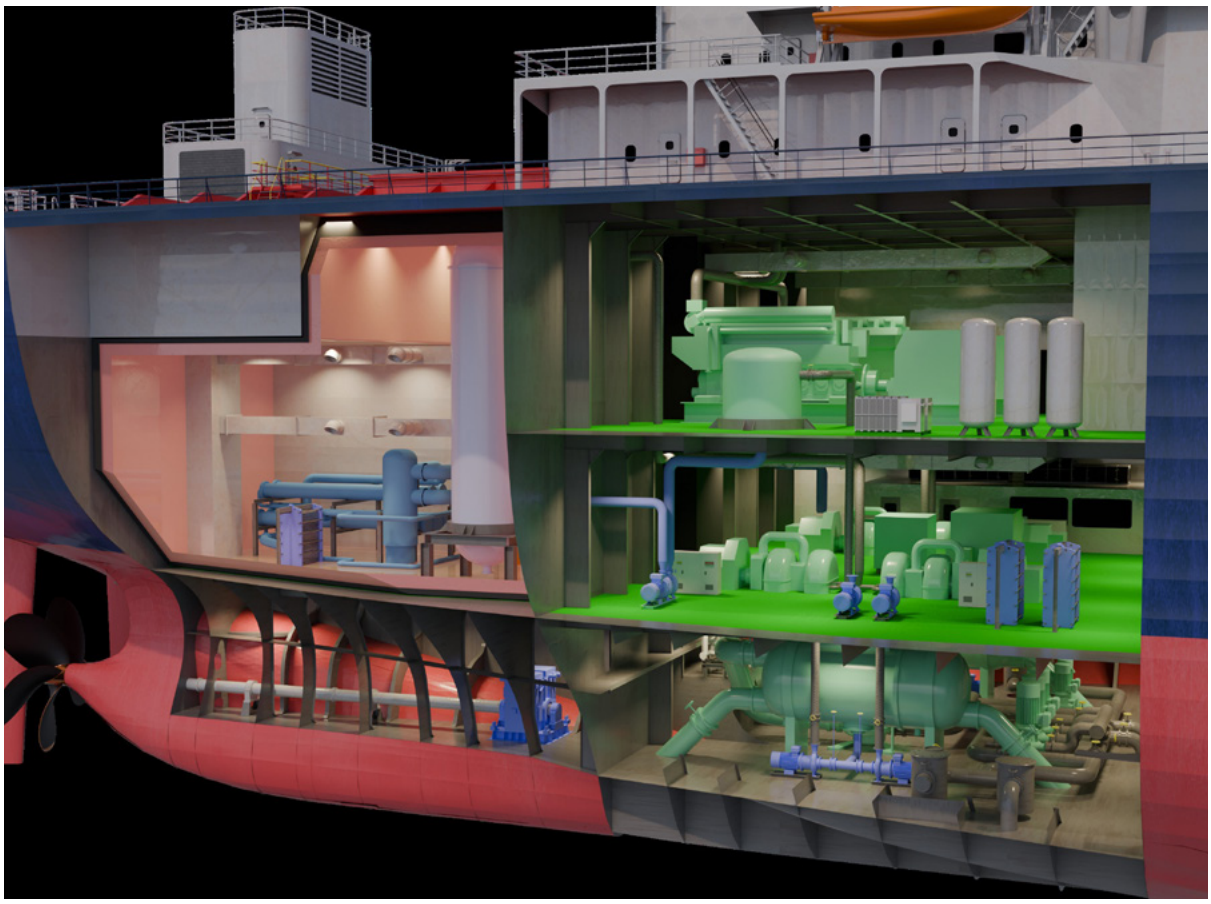
- Develop a framework for an Experience Building Phase (EBP)

MSC 1XX — 2028

- Commence development of the mandatory MASS Code

MSC 1XX — 2030 By 01 July

- Adoption of the mandatory MASS Code for entry into force on 1 January 2032



REGULATORY FRAMEWORK FOR THE SAFE USE OF ALTERNATIVE FUELS

ONGOING DISCUSSION

MSC 110

REVISION OF THE CODE OF SAFETY FOR NUCLEAR MERCHANT SHIPS

As part of the development of a safety regulatory framework to support the reduction of GHG emissions from ships using new technologies and alternative fuels, nuclear propulsion has been identified as a potential technology that could power zero-emission ships and contribute to achieving the IMO's mid and long-term ambitions to decarbonize shipping.

Chapter VIII of SOLAS 1974 on Nuclear Ships provides basic requirements for nuclear-powered ships, with Assembly resolution A.491(XII) providing the Nuclear Code as a supplement to the SOLAS requirements.

However, the Code has not been reviewed or amended since its adoption in 1981 and is in need of comprehensive revision and update to reflect and accommodate over four decades of progress in technology. The SDC sub-committee was tasked to have a preliminary discussion on the proposals for approach, scope and structure for the revision of the Nuclear Code.

In order to progress this work, SDC12 Sub-committee agreed to stablish a correspondence group (CG) aiming to collect information on relevant hazard identification exercises conducted previously or in the framework of IAEA activities, and to prepare an inventory of topics/challenges relating to the use of nuclear reactors for maritime applications.

MARITIME CYBERSECURITY DEVELOPMENTS

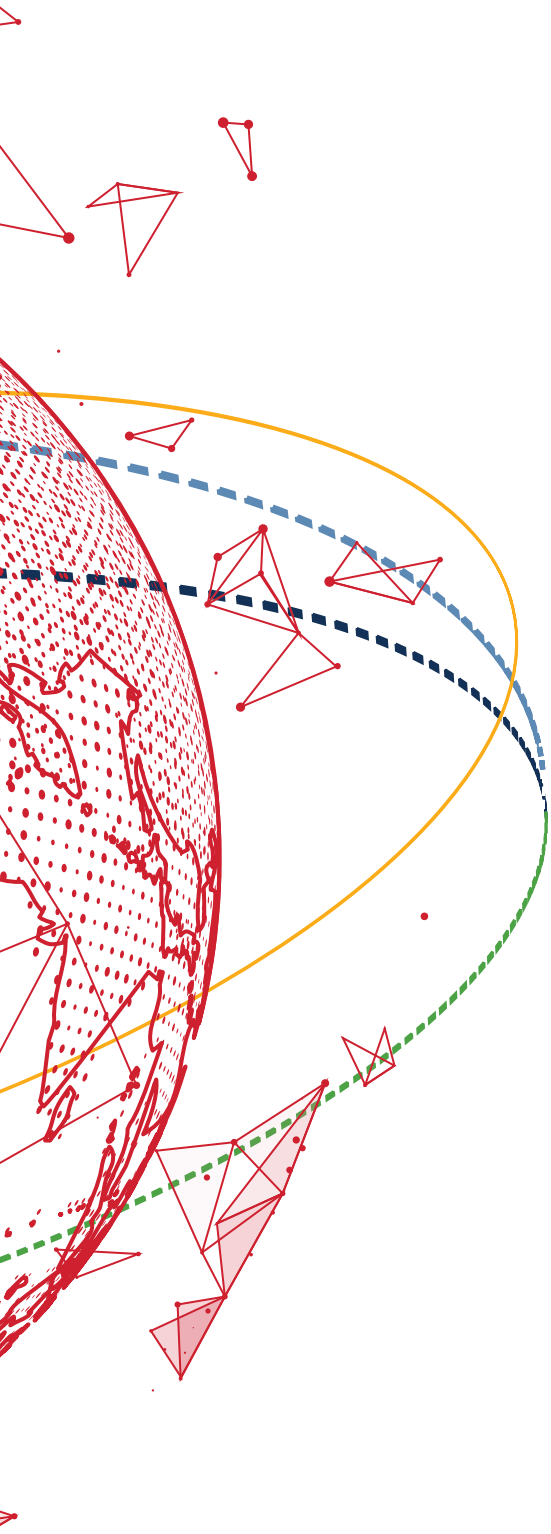
MSC 110

DEVELOPMENT OF MARITIME DIGITAL-ECOSYSTEM CYBERSECURITY STANDARDS

Following the adoption of the revised 2024 *Guidelines on Maritime Cyber Risk Management* (MSC-FAL.1/Circ.3/Rev.3), MSC 110 noted the urgent need for improved cybersecurity measures in the maritime industry to safeguard commercial ships and port facility operations against rising cyber threats and risks, and the importance of further developing cybersecurity standards for ships and port facilities. To that end, discussions took place on the approach to the next steps to enhance maritime cybersecurity (i.e., risk-based, goal-based or prescriptive), to evaluate whether requirements should be mandatory or voluntary, and to identify suitable IMO instruments for implementation of any new requirements.

The Committee concluded that a non-mandatory cybersecurity Code should be developed and noted that any cybersecurity requirements should be goal-based and include risk management, as opposed to being prescriptive in nature. This voluntary code is then to be followed by an experience building phase prior to further consideration of the need for mandatory requirements.

Next steps: Interested Member States and international organizations are invited to submit proposals on a new output in this regard to MSC 111.



Part Two

REGIONAL DEVELOPMENTS

European Union
United Kingdom
United States
China
Singapore
Exhaust Gas Cleaning Systems — Regional Restrictions


C-LIBERTY
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EUROPEAN UNION

EUROPEAN UNION (EU) FIT FOR 55: SUMMARY

EU EMISSION TRADING SYSTEM (ETS)

As of 2026 and thereafter, shipping companies will have to surrender allowances for 100 percent of the verified CO_2 emissions for their ships falling in the scope of the system. Additionally, on January 1, 2026, the CO_2 emissions in scope are extended to include CH_4 and N_2O emissions.

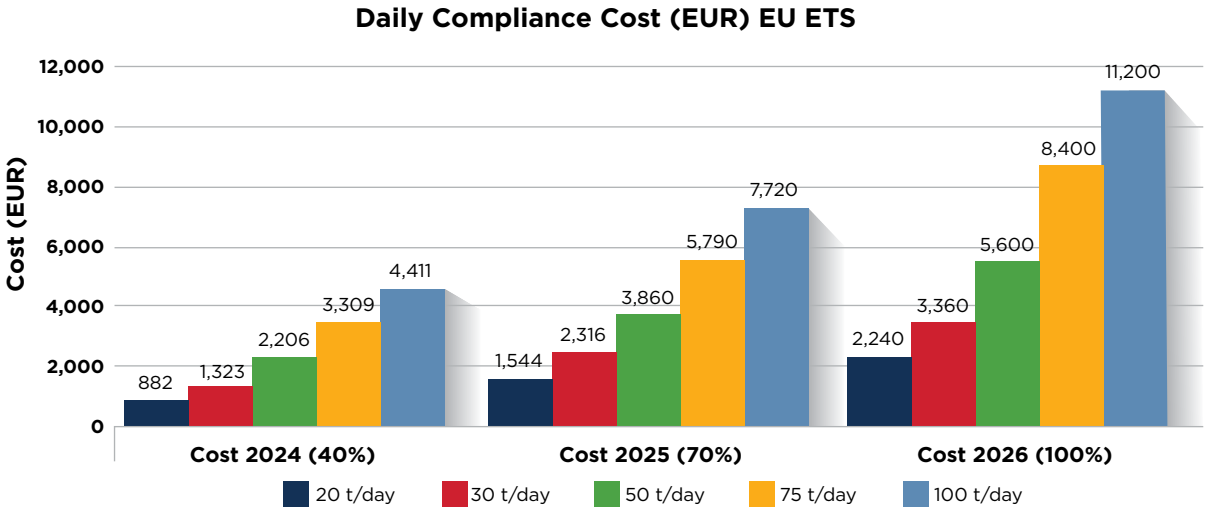
Furthermore, from January 1, 2027, the directive will become applicable to offshore vessels of over 5,000 gt.

The European Union (EU) Emission Trading System (ETS) Directive contains a review clause which provides that in the event of the adoption by IMO of a global market-based measure (MBM) to reduce GHG emissions from maritime transport, the Commission shall review ETS in light of that adopted measure. The purpose is to examine the global MBM as regards:

- Its ambition in light of the objectives of the Paris Agreement
- Its overall environmental integrity, including in comparison with the provisions of ETS covering maritime transport
- Any issue related to the coherence between the ETS and that measure

The EU ETS legislation may then be adjusted to ensure coherence between the implementation of the global MBM and the ETS, and to avoid any significant double burden, while preserving the environmental integrity and effectiveness of Union climate action.

Additional information can be found on the ABS webpage EU ETS: Inclusion of Maritime Emissions.



Assuming 70 Euros/ton CO_2 – Half EU Emissions – Use of LFO

FUELEU MARITIME REGULATION

The FuelEU Maritime regulation has been in force since 2025 and aims to incentivize the production and uptake of sustainable low-carbon and renewable fuels for ships over 5,000 gt operating in European territorial waters.

Additionally, from January 1, 2030, containerships and passenger ships will be required to connect to onshore power supply (OPS) and use it for all energy needs while at berth in a port of call under the jurisdiction of a member State.

In February 2026, the European Commission adopted an implementing act on the access rights and the functional and technical specifications of the FuelEU database. The following secondary legislation is upcoming:

- Implementing act on OPS communication
- Implementing act on the criteria for the acceptance of zero-emission technologies

A comprehensive guidance document has been developed by the Commission to support the implementation of FuelEU. It complements the EU Monitoring, Reporting and Verification (MRV) guidance document and builds upon the certification and calculation methodology reports of relevant European expert groups.

Furthermore, guidelines for reporting and verification of actual tank-to-wake methane slip emissions under FuelEU have been developed by the Commission to be used on an interim basis until international standards become available and are accepted under the EU framework. This approach combines the IMO protocol for methane slip measurements with an interim procedure for engine load monitoring and may also be applied under EU MRV/ETS.

Similar to EU ETS, FuelEU contains a review clause which provides that in the event of the adoption by the IMO of a global GHG fuel standard or global GHG intensity limits for the energy used on board by ships, the Commission shall review FuelEU in light of that adopted measure.

The review is to examine the global measure as regards its ambition in light of the objectives of the Paris Agreement and its overall environmental integrity, as well as any issue related to the possible articulation or alignment of FuelEU with that global measure, including the need to avoid duplicating regulation of GHG emissions from maritime transport at Union as well as international level.

Additional information is available on the ABS webpage FuelEU Maritime.

REVISED RENEWABLE ENERGY DIRECTIVE (RED III)

The Renewable Energy Directive (RED II), Regulation (EU) 2018/2001, aims to promote the use of renewable sources within the EU. The directive sets binding targets for renewable energy consumption across member States and establishes a framework for deploying and using renewable energy.

The RED II was recently revised (RED III) to speed up the EU's clean energy transition and increase the overall renewable energy target at the EU level of at least 42.5 percent, aiming for 45 percent. Although the scope of RED III extends beyond shipping, it is particularly important for the maritime sector since it establishes the GHG emissions saving and sustainability criteria the biofuels should comply with to be considered sustainable under the EU ETS Directive and FuelEU Maritime regulation.

As per RED III, the GHG emissions savings with respect to the fossil fuel comparator (with total GHG emissions equal to 94 gCO_{2eq}/MJ) should be:

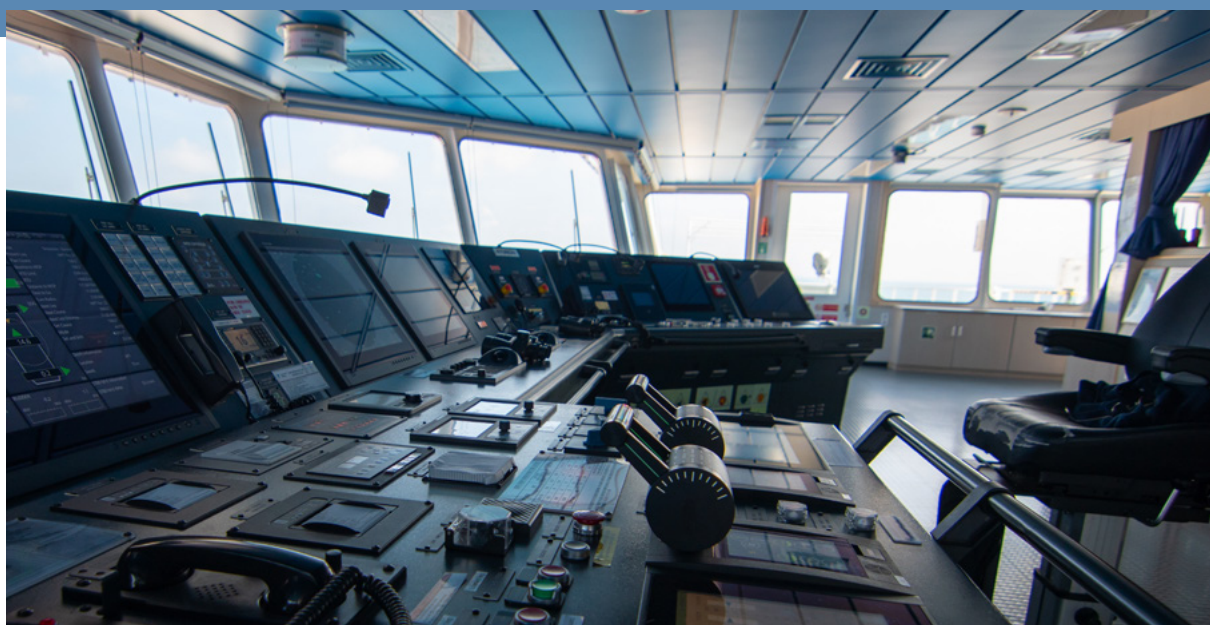
- At least 50–65 percent from the use of biofuels
- At least 70 percent for renewable fuels of non-biological origin (RFNBOs)

ALTERNATIVE FUEL INFRASTRUCTURE REGULATION (AFIR)

The Alternative Fuel Infrastructure Regulation (AFIR) has been revised to support the objectives of the FuelEU Maritime legislation by requiring EU member States to speed up the provision of liquefied natural gas (LNG) bunkering terminals and OPS in major ports as follows:

- Containerships and passenger ship terminals are to have provisions by January 1, 2030, for OPS, which meets 90 percent of the expected demand of those ports for containerships and passenger ships over 5,000 gt, where there are a certain number of port calls by those ships
- Set targets from January 1, 2025, for the supply of liquid methane through an appropriate number of refueling points (as determined by the member States) in maritime ports

These targets are aligned and consistent with FuelEU.



CYBERSECURITY

The Directive (EU) 2022/2555 (NIS2 Directive) builds upon and repeals the Directive (EU) 2016/1148 (Network and Information Security (NIS) Directive), which was the first horizontal EU cybersecurity legal act. The NIS2 Directive aims to modernize the existing legal framework by introducing measures designed to enhance the overall level of cybersecurity across the EU.

The NIS2 Directive applies to public and private entities operating in sectors of high criticality, providing services or conducting activities within the EU, and meeting specific size criteria. Notably, among the sectors identified as critical, the water transport sector includes inland, sea, and coastal passenger and freight water transport companies, excluding the individual vessels operated by those companies.

Entities that fail to comply with the requirements may face administrative fines of up to €10 million or 2 percent of their global annual turnover, whichever is greater, and may also face legal consequences, such as the suspension of their services.

Although Member States were required to transpose the directive into national law by October 17, 2024, many have yet to do so. This fragmented implementation landscape poses challenges for cross-border compliance, especially for multinational organizations.

UNITED KINGDOM

UNITED KINGDOM (U.K.) MRV

The U.K. Department for Transport (DfT) has taken a decision to delay the requirement for ship operators to report CO2 emissions for their vessels subject to the UK MRV regime until the digital reporting system is fully operational, but the legal requirement for ship operators to monitor vessel emissions remains in place.

Until reporting resumes and further guidance is issued, ship operators are not required to carry a valid Document of Compliance (DoC) for any ships that were subject to the U.K. MRV regime in the previous reporting period. No enforcement action will be taken by the U.K. Marine and Coastguard Agency until reporting resumes. An EU DoC will be recognized for voyages between the U.K. and European Economic Area (EEA) ports. However, once reporting resumes, a separate U.K. DoC will be needed to confirm that a validated emissions report for voyages between U.K. ports, U.K. ports and non-EEA ports and vice versa was submitted for each reporting period from 2022 onwards.

Additional information is available on the ABS Regulatory News U.K. Scheme for Monitoring, Reporting and Verification (MRV) of Carbon Dioxide Emissions of Ships.

U.K. ETS

The U.K. ETS, which has been in place since 2021, limits the total amount of GHGs aviation, power and other energy-intensive industries can emit. The scope of the U.K. ETS will expand to domestic maritime from 2026, introducing a cap-and-trade system, similar to the EU ETS framework.

The U.K. government has issued its Interim Response to the Industry Consultation outlining its intentions for the implementation of the U.K. ETS scheme. While the U.K. MRV regime will serve the basis for the monitoring and reporting requirements for the U.K. ETS, several deviations from the existing regime are expected.

The U.K. ETS expansion to maritime will apply for ships of 5,000 gt and above and will cover the greenhouse gas emissions (CO_2, CH_4 and N_2O) resulting from:

- Domestic voyages (defined as between U.K. ports, including those which start and end at the same port)
- Port emissions:
  - Voyage between U.K. ports of call, including while at anchor and while moored
  - Within U.K. ports, comprising emissions at berth in U.K. ports and emissions from movements within U.K. ports, whether the ship is travelling domestically or internationally

The first scheme year is expected to run from July 1 to December 13, 2026, with subsequent scheme years following the calendar year from January 1 to December 31. The intention is that the responsibility for compliance will primarily rest with the Registered Owner of the vessel, unless the ISM Company enters into a legally binding agreement with the Registered Owner to assume responsibility.

It is expected that the U.K. ETS maritime regime will follow the principles of the EU ETS, allowing operators to purchase allowances via government auctions, or on the secondary market throughout the year.

Additional information is available on the ABS webpage UK MRV and UK ETS.

UNITED STATES

CYBERSECURITY IN THE MARINE TRANSPORTATION SYSTEM

On January 17, 2025, the U.S. Coast Guard (USCG) published a final rule titled *Cybersecurity in the Marine Transportation System in the Federal Register* (90 FR 6298). This rule establishes minimum cybersecurity requirements to enhance threat detection, safeguard critical systems and support recovery from cyber incidents across the Marine Transportation System.

The rule applies to the owners and operators of U.S.-flagged vessels, Outer Continental Shelf facilities, and facilities subject to the Maritime Transportation Security Act that are required to have security plans under 33 CFR parts 104, 105, and 106. It does not apply to foreign-flagged vessels subject to 33 CFR part 104. However, such vessels should anticipate increased Port State Control scrutiny regarding cybersecurity under the ISM Code.

Key Requirements

Implementation Timeline

As of the effective date, July 16, 2025	By January 12, 2026, and annually thereafter:	By July 16, 2027
All reportable cyber incidents must be reported to the National Response Center (NRC).	All personnel must complete the cybersecurity training.	• Designate the CySO • Submit the Cybersecurity Plan to USCG for review and approval • Conduct a Cybersecurity Assessment, repeated annually

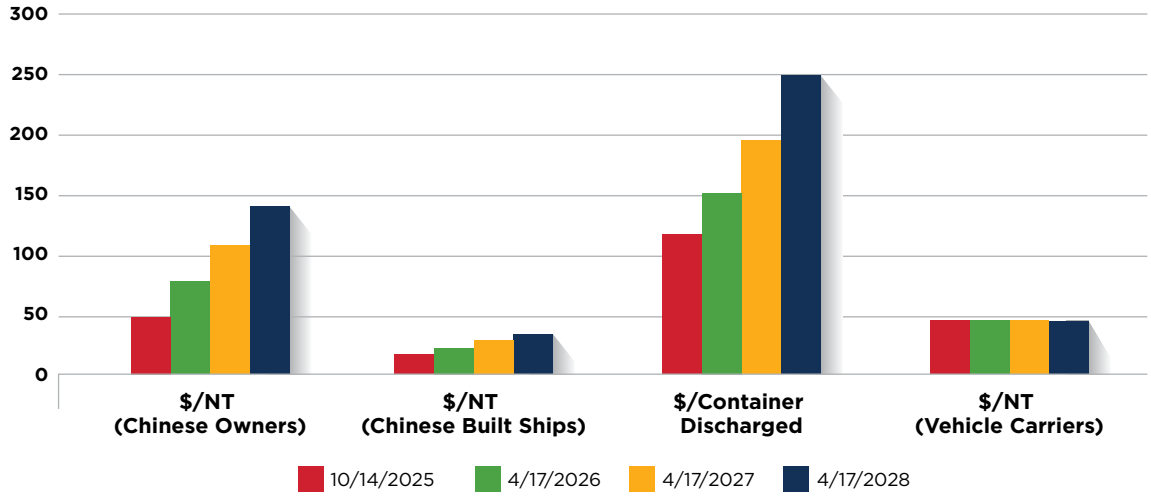
USTR 301 ACTION ON SHIPPING

The Office of the United States Trade Representative (USTR) found through its investigation that China's targeting of the maritime, logistics, and shipbuilding sectors for dominance is unreasonable and burdens or restricts U.S. commerce. The USTR has determined a number of actions in response to the findings of its investigation. These actions, which became effective on April 17, 2025, include:

- A phased fee on Chinese vessel operators and vessel owners based on net tonnage (NT)
- A phased fee on Chinese-built vessels based on NT or container discharged
- A $46 fee on vessel operators of foreign built vehicle carriers based on NT
- Restrictions on certain maritime transport services for U.S. LNG

It is assumed that NT will be based on the U.S. ton or short ton of 2,000 pounds (~907.2 kilograms).

Phased USTR Fees by Effective Date



The USTR developed a targeted coverage scheme for Chinese-built vessels that are not Chinese owned or operated which details instances in which the fees imposed will not apply. Of note, the fees will not apply to U.S. government cargo, vessels enrolled in the Voluntary Intermodal Sealift Agreement (VISA), the Maritime Security Program (MSP), the Tanker Security Program or the Cable Security Program. Similarly, fees will not apply to chemical carriers, fully cellular container vessels with a capacity of 4,000 TEU or less, bulk carriers with a bulk capacity of 80,000 deadweight tons or less, or any other vessel of 55,000 deadweight tons or less.

There is a similar targeted coverage scheme for vehicle carriers which alleviates the fee if the vessel is U.S. owned, enrolled in MSP or a government vessel.

Fees may be suspended for a maximum period of three years for a vessel if a similar vessel is on order to be built in the U.S. provided U.S. Customs and Border Protection (CBP) is satisfied that the order meets the requirements for a suspension of fees.

Effective November 10, 2025, the above responsive actions of USTR's Section 301 Investigation of China's Targeting of the Maritime, Logistics, and Shipbuilding Sectors for Dominance have been suspended for one year.

AMERICA'S MARITIME ACTION PLAN (MAP)

The White House released America's Maritime Action Plan in February 2026, outlining a national strategy to rebuild U.S. maritime strength and reduce reliance on foreignbuilt and foreignflagged vessels.

The MAP is a highlevel framework describing four key policy pillars; specific timelines will come later through legislation, regulation, and program guidance.

1. Rebuild U.S. Shipbuilding (Pillar I)

- Expand U.S. shipyard capacity and increase domestic sourcing of major components (e.g., engines, gears, propellers).
- Modernize federal shipbuilding and vessel financing tools (Title XI, CCF, CRF).
- Create Maritime Prosperity Zones offering tax incentives to attract private and allied investment.
- Impose a universal fee on foreign-built vessels calling at U.S. ports—potentially generating significant long-term revenue for a new Maritime Security Trust Fund.

2. Strengthen Maritime Workforce (Pillar II)

- Provide tax relief for U.S. mariners serving internationally.
- Expand and modernize training at the U.S. Merchant Marine Academy and State Maritime Academies; launch a Mariner Incentive Program to improve recruitment and retention.

3. Protect the Maritime Industrial Base (Pillar III)

- Introduce a Land Port Maintenance Tax on foreign cargo routed through Canada or Mexico to close the "cargo loophole."
- Establish a Strategic Commercial Fleet (SCF) to support U.S.-built vessels trading globally.
- Strengthen and enforce cargo preference laws and propose new U.S. Maritime Preference requirements for foreign exporters.
- Implement tools to counter foreign maritime and shipbuilding subsidies, particularly from China.

4. National Security & Industrial Resilience (Pillar IV)

- Expand the U.S.-flag fleet and create a reliable Maritime Security Trust Fund insulated from annual budget cycles.
- Develop regulations for autonomous vessels to guide safe future operations.

5. Deregulatory Priorities

- Remove outdated or duplicative regulations, streamline inspections, raise reporting thresholds for marine casualties, and simplify permitting and credentialing.
- Expand the use of underwater surveys in place of drydocking and modernize government IT systems for better access and compliance efficiency.

A copy of the plan may be viewed at https://www.whitehouse.gov/maritimemight/

VESSEL INCIDENTAL DISCHARGE ACT (VIDA)

On 9 October 2024, the U.S. Environmental Protection Agency (EPA) published its final rule under the Vessel Incidental Discharge Act (VIDA). It established federal performance standards for marine pollution control devices applicable to discharges into U.S. waters and the contiguous zone. These standards apply to non-armed forces and non-recreational vessels 79 feet and longer.

The USCG is required to develop corresponding implementation, compliance and enforcement regulations within two years from EPA standards' publication (expected by October 2026). These regulations may include requirements for the design, construction, testing, approval, installation and use of devices necessary to meet the EPA standards.

The EPA's rule took effect on November 8, 2024. However, the federal standards will only become enforceable once the USCG has finalized its regulations. Until then, existing requirements from the 2013 Vessel General Permit (VGP) and the USCG's requirements under section 1101 of the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) will remain in effect. Once the USCG's new regulations are finalized, the requirements of the VGP and related regulations will be repealed.

Two types of discharge standards of performance have been established under VIDA:

- **General Standards for Discharges**, which are organized into three categories:
  - General operation and maintenance
  - Biofouling management
  - Oil management
- **Standards for Specific Discharges**, which address discharges of 20 different pieces of equipment and systems (including boilers, cathodic protection, chain lockers, decks, elevator pits, fire protection equipment, gas turbines, inert gas systems, motor gasoline and compensating systems, non-oily machinery, pools and spas, refrigeration and air conditioning, sonar domes, bilges, desalination and purification systems, ballast tanks, exhaust gas emission control systems, graywater systems, hulls and associated niche areas, and seawater piping). The new requirements are at least as stringent as those in the VGP.

The full set of requirements applicable to each discharge standard of performance can be found in 40 CFR 139.

VIDA has also established specific requirements applicable to vessels operating in federally protected waters identified in Appendix A of 40 CFR 139.

Additional information is available on the ABS webpage Vessel Incidental Discharge Act (VIDA).

CARB — POTENTIAL OCEAN-GOING VESSELS (OGV) IN-TRANSIT REGULATION

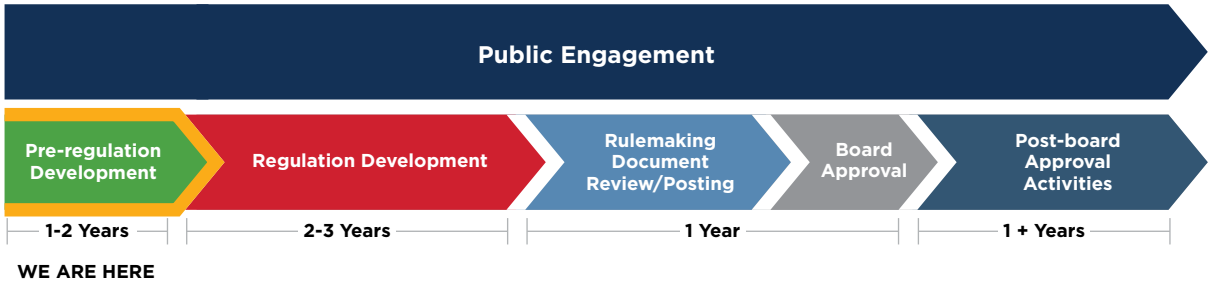
The California Air Resources Board (CARB) is developing a new "Potential OceanGoing Vessel (OGV) InTransit Regulation" to significantly reduce air pollution from ships traveling along the California coastline. This proposed rule focuses on emissions produced while vessels are transiting, maneuvering, or anchoring within state regulated waters. CARB's primary objective is to reduce harmful pollutants – such as diesel particulate matter, nitrogen oxides, and sulfur oxides–emitted by large commercial vessels operating near California's shoreline communities.

CARB currently administers two major rules – the OGV AtBerth Regulation and the Vessel Fuel Regulation–which target NOx, PM, and SOx emissions, with greenhouse gas reductions as an added benefit. However, CARB's 2022 Interim Evaluation Report for the AtBerth Regulation underscored a critical gap: the vast majority of OGV emissions occur while vessels are in transit, including maneuvering and anchoring near ports and marine terminals. These in-transit activities account for approximately 95% of total OGV emissions, making them a substantial driver of NO_x and PM levels.

The development of the new in-transit regulation is still in its early stages, with CARB currently targeting Board's approval by 2032.

Additional information is available in the CARB webpage: OGV In-Transit Regulation

Regulation Development Timeline



CHINA

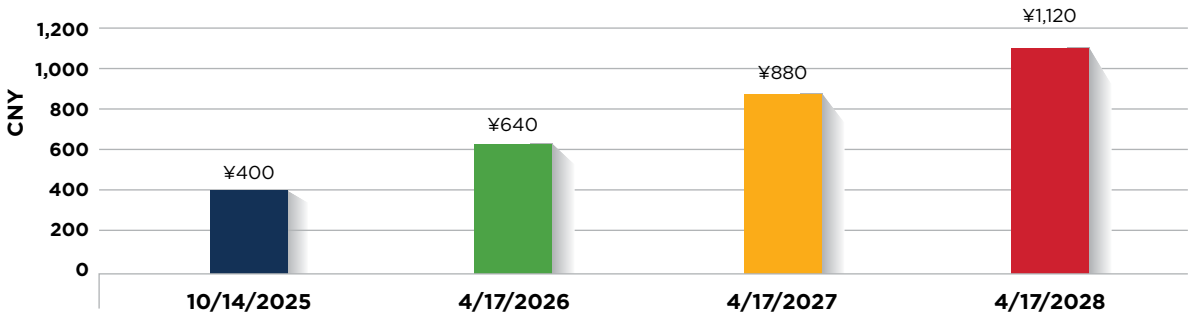
CHINA SPECIAL PORT FEES ANNOUNCEMENT BY MINISTRY OF TRANSPORT (MOT)

Effective October 14 2025, China imposed a Special Port Fee on the following U.S.-related vessels:

- Owned or operated by U.S. entities/individuals.
- With ≥25% U.S. ownership/control (voting rights, or board seats).
- Flying the U.S. flag or built in the U.S.

Vessels built in China that fall under above and vessels entering Chinese shipyards for repairs in ballast and other vessels recognized as exempt are exempt from the fee.

Special Port Fee CNY(¥)/NT by Effective Date



If a vessel calls at multiple Chinese ports on the same voyage, it shall pay the special port dues only at the first port of call and shall not be charged at subsequent ports of call. Special port dues may not be charged for more than five voyages of the same vessel in a year

Starting from November 10, 2025, the China Ministry of Transport (MOT) has suspended the application of Special Port Fees on U.S. related vessels for one (1) year. This suspension reflects the implementation of the consensus reached during the 2025 Kuala Lumpur economic and trade consultations between China and the U.S., which were approved by the State Council of China.

SINGAPORE

GREEN SHIP PROGRAM

From January 1 2025, until December 31, 2027, the Maritime and Port Authority of Singapore (MPA) will provide up to 100 percent concessions on initial registration fees and annual tonnage taxes for Singapore-Registered Ships (SRS) which:

- Exceed IMO's MARPOL Annex VI Phase 3 Energy Efficiency Design Index requirements by 10 percent or more;
- Adopt low-carbon fueled engine;
- Adopt zero-carbon coupled with near-zero emissions fueled engine;
- Adopt zero-emission fueled engine/technology; or
- Achieve CII Rating A

From January 1, 2025, until December 31, 2027, MPA will provide up to 100 percent port dues concession to ocean-going vessels calling at the Port of Singapore which:

- Use of zero-emission fuel/technology (e.g. hydrogen, full electrification, hybrid of hydrogen fuel cell and electrification etc.);

- Use of zero-carbon fuel (e.g. ammonia with pilot fuel capped at 25 percent with ammonia slip/NOX/N2O addressed, B100 biofuel, green methanol, etc.);
- Use of low-carbon content fuels with CO2 conversion factor (CF) value ≤ 1.375 (e.g. methanol), or using LNG in engine with methane slip addressed to max 1%, or biofuels B50 and above up to B99; or
- Use of low carbon content fuels with 1.375 < CF value ≤ 2.750, e.g. LNG (in engine without methane slip addressed), or biofuels B24 and above up to B49.

GREEN PORT PROGRAMME (GPIP)

The Green Port Programme (GPIP) is a new program that was included in Maritime Singapore Green Initiative in 2024. It supports the port's net zero transition, primarily through uptake of green fuels, energy optimization and renewables generation.

To support businesses in their sustainability journey, the Energy Efficiency Grant (EEG) helps businesses transition toward being more energy efficient by co-funding their investments in energy efficient equipment. The EEG provides two tiers of support: a base tier to provide support for pre-approved energy efficient equipment up to S$30,000; and an advanced tier to support companies for larger investments that drive greater energy efficiency. Support is capped at S$350,000 per company across base and advanced tiers.

For the port sector, eligible companies can receive up to 70 percent co-funding support for the adoption of energy efficient electric forklift(s). The application window for the EEG is until March 31, 2026.

EXHAUST GAS CLEANING SYSTEMS—REGIONAL RESTRICTIONS

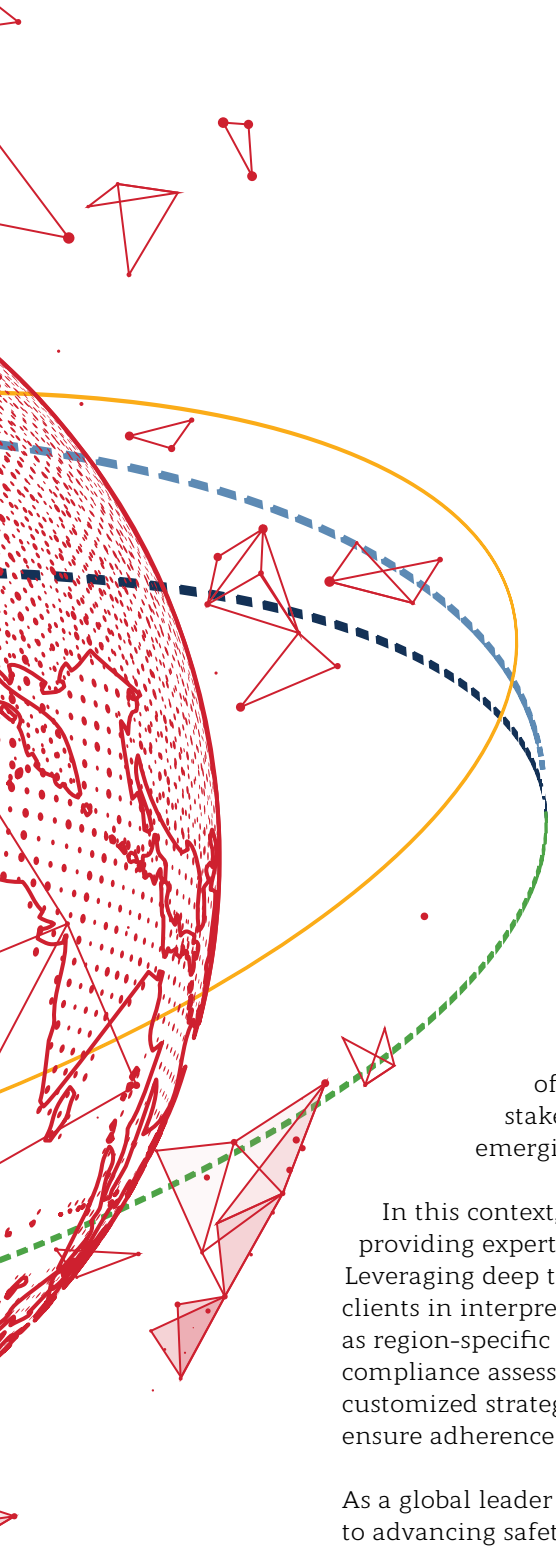
Under MARPOL Annex VI, the highest permissible sulfur content of marine fuel used on a vessel when operating globally is 0.5 percent, while the allowable sulfur content for fuel used on a vessel operating in ECAs is 0.1 percent. Use of EGCS, or scrubbers, is an equivalent method to comply with the MARPOL Annex VI fuel sulfur requirement while avoiding the premium cost of low-sulfur fuels.

In recent years, restrictions on open-loop discharges have been implemented in several ports, coastal areas and territorial waters due to concerns about environmental impacts.

The table below summarizes the positions taken by ports that have or will prohibit the use of scrubbers or have placed conditions on their use. This information is for guidance only and should be verified with current port regulations, as restrictions may change frequently. A new dedicated tab in the GISIS "MARPOL Annex VI" module has been developed to enable Member States to submit information on local/regional restrictions/conditions on the discharge of water from EGCS. As of the date of publication, three Member States have submitted notifications, while PPR 13 has invited all Member States to provide such information.

Country	Port/Sea Area	Is the Discharge of Wash Water Prohibited?
Albania	All ports	Prohibited
American Samoa	All ports	Prohibited
Argentina	Certain Areas	Prohibited in certain areas
Australia	Ports of Sydney and Hastings	Restricted
	Territorial Waters of Australia	Restricted - Conditional
Bahrain	Within port limits of Bahrain including the anchorage area	Restricted
Belgium	All ports and inland sea areas	Prohibited
Belize	Territorial waters and port areas of Belize	Prohibited
Bermuda	Territorial waters of Bermuda	Prohibited
Brazil	All ports	Restricted
	All ports owned by Vale	Prohibited
	Port of Santos	Prohibited
British Virgin Islands	All Ports	Prohibited
Canada	Port of St John	Restricted
	Port of Vancouver	Prohibited
China	Inland River ECAs Waters of ports in Coastal ECAs Bohai Sea waters	Prohibited
	Port of Hong Kong	Application to be made to Hong Kong authorities 14 days prior to a ship's first visit to HK for exemption from using compliant fuel.
Columbia	Internal waters, territorial sea area, and the contiguous Colombian zone	Restricted
Croatia	All Ports	Prohibited
Cyprus	All Ports	Restricted
Denmark	Territorial waters of Denmark	Prohibited
Egypt	Suez Canal	Prohibited
Estonia	All Ports	Prohibited - Conditional
Finland	Territorial waters of Finland	Prohibited
France	French territorial waters (including all ports) within three nautical miles from the nearest land	Prohibited
Germany	Inland waterways	Prohibited
	Canals	Prohibited
	Port of Kiel	Prohibited
	Port of Hamburg	Prohibited
	Port of Rostock	Prohibited
	River Elbe	Prohibited
Ghana	Territorial waters of Ghana	Prohibited
Gibraltar	Waters of Gibraltar	Prohibited
Ireland	Port of Dublin	Prohibited
	Port of Waterford	Prohibited
	Port of Cork	Prohibited
	Shannon Foynes Port	Prohibited
Israel	All Ports	Prohibited
Kenya	Within all port limits	Prohibited
Lithuania	Territorial waters of Lithuania	Restricted

Country	Port/Sea Area	Is the Discharge of Wash Water Prohibited?
Malaysia	Within 12 nautical miles of land	Prohibited - Ships transiting the Malacca Strait are permitted to use EGCS unless enroute to a Malaysian port.
Mauritius	Within 12 nautical miles of land	Prohibited
Mexico	All Ports	Restricted
Monaco	All Ports	Restricted
Montenegro	All Ports	Restricted
Morocco	Port of Casablanca	Restricted
Mozambique	Nacala Port	Prohibited
Netherlands	Port of Amsterdam	Prohibited
Nigeria	All Ports	Prohibited
Norway	The World Heritage Fjords	Prohibited
	All Ports	Prohibited
Oman	Territorial waters of Oman	Prohibited
Pakistan	Port of Karachi	Prohibited
	Port of Bin Qasim	Prohibited
Panama	Panama Canal	Prohibited
Portugal	All Ports	Prohibited
Qatar	Territorial waters of Qatar	Prohibited
Romania	Within port limits	Restricted
Saudi Arabia	All Ports	Prohibited
Singapore	Port of Singapore	Prohibited
Slovenia	All Ports	Prohibited
Spain	All Ports	Prohibited within 3 nautical miles (Effective from July 2027)
	Port of Cadiz	Restricted
	Port of Bilbao	Restricted
	Port of Algeciras	Prohibited
	Port of Valencia	Prohibited
	Port of Cartegena	Prohibited
	Port of Huelva	Prohibited
Sweden	All Ports	Prohibited
	Port of Stenungsund	Prohibited
	Port of Trellebord	Prohibited
	Port of Gothenburg	Prohibited
	Port of Oxelosund	Prohibited
	Port of Gavle	Prohibited
	Port of Stockholm	Prohibited
Thailand	All Ports	Prohibited
Trinidad & Tobago	All Ports	Restricted
Turkey	All Ports	Prohibited
United Arab Emirates	Port of Fujairah	Prohibited
	Port of Dubai	Prohibited
	Dundee	Prohibited
	Port of Milford Haven	Restricted
	Port of Tilbury	Prohibited
United States of America	Ports of Connecticut	Prohibited
	Port of Seattle	Restricted
	Ports of California	Prohibited
	Port Everglades	Restricted
	Ports of Hawaii	Allowed subject to certain terms in 2013 VGP
	U.S. National Marine Sanctuaries	Restricted



Conclusion

NAVIGATING THE REGULATORY LANDSCAPE

The maritime industry operates within a multifaceted and continuously evolving regulatory environment. Ensuring compliance with a broad spectrum of international, national, and local regulations is essential for maintaining safe, efficient, and environmentally responsible vessel operations. These regulations encompass a wide array of domains—from environmental mandates aimed at reducing greenhouse gas emissions and safeguarding marine ecosystems, to stringent safety protocols designed to mitigate operational risks and protect crew welfare. The dynamic nature of this regulatory framework necessitates ongoing vigilance, as stakeholders must adapt to frequent updates, new requirements and emerging compliance challenges.

In this context, ABS serves as a strategic partner to maritime stakeholders, providing expert support in navigating the intricacies of regulatory compliance. Leveraging deep technical expertise and global regulatory insight, ABS assists clients in interpreting and implementing standards issued by the IMO, as well as region-specific and national regulations. Our services include comprehensive compliance assessments, tailored training programs, and the development of customized strategies that help minimize operational disruptions while helping ensure adherence to applicable requirements.

As a global leader in marine and offshore classification, ABS remains committed to advancing safety, performance, and sustainability across the industry. We play a pivotal role in supporting regulatory compliance, the integration of remote and autonomous technologies, and the adoption of digital innovations. Through collaborative research and joint development initiatives, ABS continues to support the maritime industry's evolution, empowering asset owners and operators to meet regulatory demands while embracing the future of maritime operations.

For organizations seeking guidance on the regulatory topics addressed in this publication, ABS specialists are available to provide tailored compliance solutions and technical support.

ABS RESOURCES

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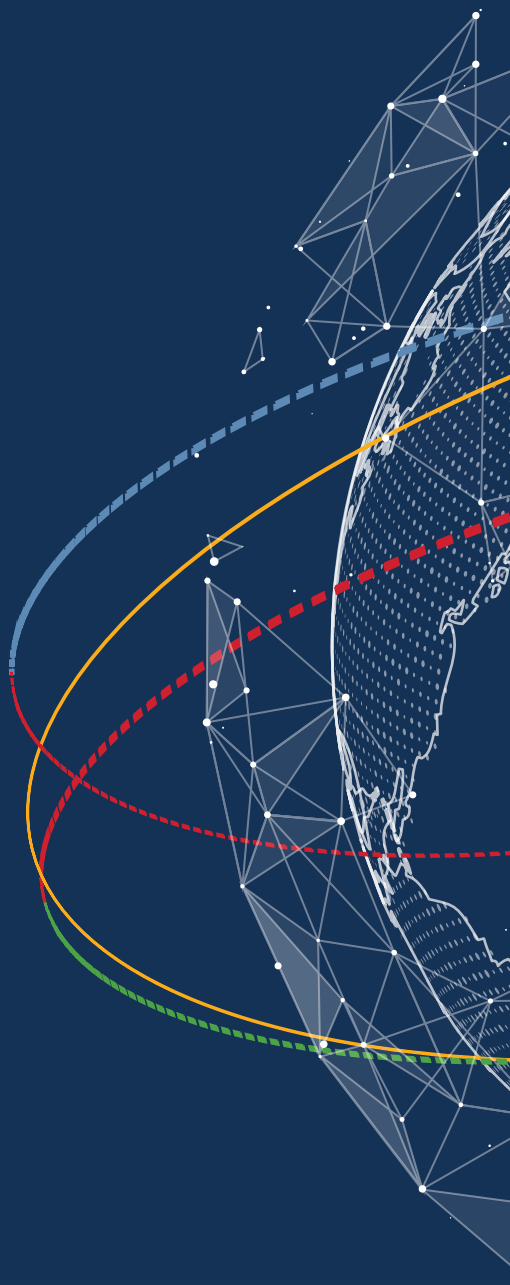

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