Legal and Other Requirements List

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1	Air Pollution and Energy Efficiency Responsible Dept.:Technical /Operations /HSEQ	**EEDI and SEEMP** The Energy Efficiency Design Index (EEDI) is a non-prescriptive, performance-based mechanism that leaves the choice of technologies to use in a specific ship design to the industry. **All ships of 400 GT or above engaged on international voyages are required to be surveyed and certificated for issuance of International Energy Efficiency certificate.** The following ships contracted for construction on or after 01/01/11 (in the absence of a building contract, the keel of which is laid on or after 01/07/13), or delivered on or after 01/07/15 should have an EEDI: Bulk carrier* / Gas tanker* / Tanker* / Container ship* / General Cargo ship*. In addition, ships indicated with * in above list constructed from 01/01/13 toward 2025 (and thereafter) must meet reduction of GHG. The Regulations require that all ships>400 GT are to have a SEEMP. While SEEMP is a part of requirements for the Int. Energy Efficiency Certificate (IEE Certificate), the presence of SEEMP will be also verified at intermediate and renewal surveys required under MARPOL Annex VI for the IAPP Certificate. **Guidelines on the method of calculation of attained EEDI for new ships** MEPC.203 (62) introduced the requirement for EEDI. The IMO/MEPC approved various revisions to guidelines on the method of calculation of Attained EEDI for new ships as per MEPC.1/ Circ.681: • ship-specific structural enhancements – a correction factor (proportional to the ratio of minimum design dwt and enhanced design dwt) is applied to account for increased lightship, for example, due to increased longitudinal strength, structural class notations, bow slamming reinforcement and collision strength; • ice-classed ships – correction factors for power and capacity were adjusted to take into account new data; • all ships – as an option to applying a weather factor of 1.0, EEDI can be determined by conducting the ship specific simulation on its performance at representative sea conditions in which case “attained EEDI weather” is assigned to the ship. **EEDI as specified in MARPOL VI / Chapter 4 is not to be applied to existing ships.** **Guidelines for calculation of reference lines for use with the EEDI:** The reduction of EEDI for specific newship types will require these ships to have an attained EEDI (i.e., actual verifiable values) equal to, or less than,the required EEDI values determined using Reference Lines. The guidelines for calculation of these referencelines for use with the EEDI were adopted by MEPC 63 under a separate resolution.
2	Sulphur Cap Implementation & SECAs Responsible Dept.:Technical	***Amendments to MARPOL Annex VI, Appendix V - Bunker Delivery Note*** The revised bunker delivery note includes a new entry (selection box) for the “purchaser’s specified limit value” of the sulphur content. This means that even fuels with higher sulphur content than required by reg. 14 of Annex VI can be delivered to a ship where the ship uses equivalent measures such as an EGCS. **MC(19)34:** ICS published an updated List of Ports & Sea Areas that prohibit Discharges From Open Loop Scrubbers.

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		From 1/3/20: MARPOL Annex VI Reg. 14 is amended to prohibit all ships from carrying fuel oil with a sulphur content higher than 0.50% on board, unless the ship has an approved equivalent arrangement in place, such as an EGTS. Amendments were also made to the supplement of the IAPPC. New guidelines for approval and certification of Exhaust Gas Cleaning Systems (EGCS or scrubbers) will be applicable to systems installed on ships 6 months after adoption by MEPC 75 in April 2020. **MSC 105:** Draft amendments to SOLAS Chapter II-2 were approved to require that a bunker delivery note for the fuel delivered to the ship shall contain the flashpoint information. **MEPC 78:** In relation to abovementioned approval, related amendments to MARPOL were approved by MEPC. Amendments include the following new requirement of the BDN: "Flashpoint (0C) or a statement that flashpoint has been measured at or above 70 0C. **South Korea has announced an air quality control program defining selected ports and areas as ECA.** The limit for sulphur in FO used onboard ships operating inside Korean ECAs is 0.10% m/m (mass by mass). All ships should either switch ship's fuel oil to 0.1% Sulphur fuel (fuel with Sulphur not exceeding 0.1%) or use an EGCS as an equivalent arrangement for SOx emission reduction (criteria:4.3 SO2(ppm)/CO2(% ,v/v)) starting from 1/9/2020. Fuel change-over should be recorded in E/R logbook or alternatively record the operation status of EGCS. Ships shall keep the E/R log book for not less than 12 months from the time of delivery of FO. Ships using separate tanks to comply with sulphur content limits, shall carry procedure describing fuel oil change over procedure before entering or leaving Korean SECA. **Effective dates:** From 1/9/2020 to 31/12/2021: From 1 hour after completion of anchoring or mooring to 1 hour before completion of heave in anchor or de-berthing. On or after 1/1/2022: When navigating into SOx ECA. Emission Control Ports are: Busan Port, Incheon Port (including Gyeongin), Ulsan port, Yeosu Port, Gwangyang Port (including Hadong port), Pyeongtaek-Dangjin Port. Speed limits are also part of this act. Busan, Incheon, Yeosu/ Gwangyang and Ulsan port will be the "Vessel Speed Reduction (VSR) program Sea Areas". Each one of these areas spans 20 nm in radius from a specific lighthouse in each port. Ships that voluntarily reduce their speed (12 knots for containers & car-carriers, 10 knots for other ship types (General cargo ships, Crude Oil Carriers, Chemical & LNG Carriers)) will have their port entry/leave fees discounted. **Sierra Leone Ports Authority:** From **1/9/2021**, vessels calling at ports in Sierra Leone risk penalties of up to USD 15,000 if they carry fuel with a sulphur content exceeding 0.5 % (even for ships with an exhaust gas cleaning system (scrubber) installed). Penalties will not be instituted against defaulting or non-compliant vessels on or before 31/8/2021. However, a non-compliance report together with a warning letter will be issued to non-compliant vessels for corrective action to be taken prior their next call at the port and within this grace period as stipulated above. China: From 1/1/2022: A sulphur cap of ≤ 0.10% applies to seagoing vessels entering Hainan Waters within thecoastal ECA and in 'inland control areas'. These include the navigable waters of the Yangtze River main lines and the Xijiang River main lines. The subject legislation is national and is not connected to MARPOL Annex VI ECA Areas

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3	Recycling of ships Responsible Dept: Technical	On 15/5/2009 the "Hong Kong Int. Convention for the Safe and Environmentally Sound Recycling of Ships, 2009" was adopted. The Convention will enter into force 24 months after it has been ratified by 15 States, representing 40% of the world fleet, and with an annual ship recycling capacity of 3% of that fleet. **2011 Guidelines for development of Ship Recycling Plan (SRP Guidelines).** **MEPC 62** adopted the new SRP Guidelines which are simpler than before and fulfil the concept of the SRP which is to match the facility to the ship, and the new guidelines do not generally go beyond the convention. **2011 Guidelines for development of Inventory of Hazardous Materials (IHM).** **MEPC 62** adopted guidelines which achieve improvement and enable proper international acceptance of testing techniques and results which will be vital to the credibility of Inventories approved by members. **MEPC 63** adopted the following: • Guidelines for Safe and Environmentally Sound Ship Recycling (Facility guideline); • 2012 Guidelines for authorization of ship recycling facilities. These guidelines clarify the requirements for ship recycling facilities and how they are to be enforced. The Committee endorsed the proposal that accepts that a "Statement of Compliance on IHM" for existing ships will be considered as complying with the requirements of the Convention for an interim period up to the Convention's entry into force, after which the Administration may issue the IHM Certificate on the basis of the IHM SOC. **MEPC 64 resolution on Guidelines for Survey and Certification of Ships (Survey Guidelines):** Article 5 of the Convention prescribes that each party shall ensure that ships flying its flag or operating under its authority and subject to survey and certification are surveyed and certified in accordance with the Annex to the Convention. **MEPC resolution on Guidelines for Inspection of Ships (PSC Guidelines)** intended to provide guidance for conducting PSC inspections; it describes initial inspection, more detailed inspection and detainable deficiencies. **MEPC 65: Ship Recycling Convention:** Ships should have on board an IHM; also demolition should be conducted at the yards complying with the Convention. **Guidelines for implementation of the Convention:** The Committee considered the threshold values and exemptions applicable to materials to be listed in IHM in "2011 Guidelines for the Development of Inventory of Hazardous Materials". **MEPC 66: RECYCLING OF SHIPS:** The correspondence group was re-established to finalize the development of threshold values, exemptions and bulk listings applicable to materials to be listed in IHM. All 6 sets of guidelines required have been finalized for voluntary implementation of technical standards in the period leading up to its entry into force. The majority of threshold values determined although that for asbestos has not.

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		MEPC 68: SHIP RECYCLING CONVENTION - IHM GUIDELINES ADOPTED **EUROPEAN UNION REGULATION ON SHIP RECYCLING:** On 22-10-2013 EU Ship Recycling Reg. No 1257/2013 was adopted with latest entry force date 31/12/2018. The regulation makes it possible to legally recycle EU ships outside the OECD, but only in facilities that meet minimum environmentally requirements. The Regulation requires the establishment of a list of approved ship recycling facilities ("EU List") which meet the design, construction and operation requirements of EU but may be anywhere in the world. Ship owners will be able to choose such facilities from an "EU list". The implementation affects all EU and Non-EU flagged ships calling EU ports, of more than 500 GT. New installation of hazardous materials listed hereunder will be prohibited or restricted. New and existing EU and all Non-EU flagged ships calling EU ports have to carry an IHM on board. New EU flagged ships have to comply with IHM requirements until the application date. EU flagged existing ships and Non-EU ships have to comply with IHM requirement within 5 years after 31/12/15. **EU Ship Recycling into force on 31/12/2018:** New EU flagged ships (building contract placed on or after 31/12/ 2018) must have an IHM at delivery while existing vessels will need to have an IHM not later than 31/12/2020. In case however a ship flying the flag of an EU Member State is to be recycled, an IHM, as far as practicable, regardless of the facility to be used for recycling has to be prepared. The EC has suggested to EU member states to apply a harmonised approach for 6 months after the entry 31/12/2020 into application of the IHM related obligations for existing EU flagged ships and non-EU flagged ships calling at EU ports or anchorages. In this case the vessel may arrive at an EU port after 31/12/2020 without carrying a valid IHM, if the shipowner/master claim that this non-compliance is due to the Covid-19. In this approach, the following guidance is provided: • In all cases of non-compliance, including a semi-completed IHM, the burden of proof is on the shipowner/ship master, who should provide evidence of all the measures taken to undertake the IHM work and obtain the required certification and documentation. Force-majeure is not an option. • PSC inspectors are advised to assess evidence provided on a case-by-case basis depending on the specific circumstances of ship and decide accordingly. In case of acceptance, shipowners/ship masters have 4 months after the PSC inspection to complete the IHM. • If the agreed plans are changed owing to Covid-19 travel and access restrictions, the shipowner/master shall gather sufficient written evidence from IHM inspectors on why the IHM is not completed for checking by the next PSC inspector. Guidelines on the enforcement of obligations under the EU Ship Recycling Regulation relating to IHM of vesselsoperating in European waters (2020/C 349/01)
4	Reschedule for ships constructed before the entry into force (EIF)* of the Convention	**MEPC 64** approved a BWM circular encouraging concerned parties to issue a document stating compliance with the convention earlier than the entry into force date. The convention applies to all ships carrying seawater ballast except for: 1. granted to a ship or ships on a voyage or voyages between specified ports or locations; or to a ship which operates exclusively between specified ports or locations; 2. effective for a period of no more than 5 years subject to intermediate

<table>
<tr><th>No.</th><th>Legal & Other Requirements- Amendments & New Regulations</th><th>Executive Summary</th></tr>
<tr><td></td><td>Harmful aquatic Organisms in ballast water (RG)
Responsible Dept: Technical department/Operations Department /HSEQ Department</td><td>
review;
3. granted to ships that do not mix ballast water or sediments other than between the ports or locations specified in 1 above; and
4. granted based on the Guidelines on risk assessment developed by IMO.

MEPC 65
<u>Entry into force:</u> The implementation schedule given in a draft resolution is as follows:
“EIF” means entry into force of the BWM Convention. This occurs 12 months after the date when condition for
entry into force is met. The IOPP renewal survey indicated in the table below refers to the renewal survey associated with the IOPP Certificate required under MARPOL.
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<tr><th>Ballast Capacity</th><th>Constructed before 2009</th><th>Constructed in or after 2009 but before 2012</th><th>Constructed in or after 2012</th></tr>
<tr><td>Less than1500 m3</td><td>EIF before 2016: by 1st IOPP** renewal survey after the anniversary of the delivery of the ship in 2016 EIF after 2016: by 1st IOPP** renewalsurvey</td><td colspan="2">By 1st IOPP renewal survey after EIF</td></tr>
<tr><td>Between 1500 m3 and 5000m3</td><td>EIF before 2014: by 1st IOPP** renewal survey after the anniversary of the delivery of the ship in 2014
EIF after 2014: by 1st IOPP**renewalsurvey</td><td colspan="2"></td></tr>
<tr><td>Greater than5000 m3</td><td>EIF before 2016: by 1st IOPP** renewal survey after the anniversary of the delivery of the ship in 2016 EIF after 2016: by 1st IOPP**renewal survey</td><td colspan="2">By 1st IOPP**renewal survey afterEIF</td></tr>
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		Annex I. Ships constructed after the entry into force of the Convention are required to comply on delivery. **<u>1. Approval of Ballast Water Management Systems using active substances</u>** Systems should be type approved by the Administration based on IMO Guideline. In case where "active substances" are used to sterilize harmful aquatic organisms and pathogens, the approval of the active substances itself by IMO (Basic Approval) and the comprehensive approval of the systems by IMO (Final Approval) are needed prior to the type approval by the Administration. **<u>2. Sampling methodology during PSC inspection</u>** Ballast Water Management Convention allows PSC inspectors to carry out ballast water sampling during PSC inspection to confirm compliance with the Convention. Guidance on ballast water sampling for PSC inspectors was approved for trial use and following recommendations agreed: (1) The trial period would be for 2-3 years following entry of the Convention. (2) During the trial period, Port States would refrain from applying criminal sanctions or detaining the ship based on only sampling. (3) The methods considered mature enough for use in the context of PSC are identified in the trial. **MEPC 70:** Revised Guidelines for approval of BWMS (G8) were adopted. The revision to the guidelines updates the approval procedures for BWMS, including more robust test and performance specifications & more detailed requirements for type approval reporting and control and monitoring equipment, among others. **MEPC 72: Ballast Water Management Convention** All ships must have a ballast water management plan and keep a ballast water record book. Ships are required to manage their ballast water to meet either the D-1 ballast water exchange standard or D-2 performance standard, which specifies maximum limits for the discharge of viable organisms as well as specified indicator microbes harmful to health. **MEPC 74:** MEPC approved BWM.2/Circ.67/Rev.1 on revised Data gathering & analysis plan for the experience building phase associated with BWM Convention, to incorporate a link to standard operating procedures. **PPR 7 (17-21 February 2020):** An amendment to reg. E-1 of BWM Convention mandates the commissioning testing of BWMS. PPR 7 completed its revision of guidance on this testing, which is intended to validate the installation of a BWMS by demonstrating that its mechanical, physical, chemical and biological processes are working properly. **MEPC 75** adopted amendments to BWM Convention concerning commissioning testing of BWMS and the form of Int. Ballast Water Management Certificate. A commissioning test of BWMS based on BWM.2/Circ.70/Rev.1 will be required for the

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		initial survey or when performing an additional survey for retrofits. A new tick box for management methods other than D-1, C-2 and D-4 has been added in the international BWMC, for vessels using alternative approaches such as reception facilities. The amendments entered into force on **1 June 2022**. Revised Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2) (BWM.2/Circ.42/Rev.2) was also approved. If delivery of the vessel is on or after **1 June 2022**, then commissioning testing needs to be completed fully in accordance with BWM.2/Circ.70/Rev.1, even if system has been partially installed and/or commissioned before **1 June 2022**. The same also applies for existing ships where the BWMS installation survey is due to becompleted on or after **1 June 2022.**
5	IBC Code Responsible Dept: Operations / HSEQ	**MEPC 64** • MEPC.2/Circ - Provisional classification of liquid substances transported in bulk, and other matters. • Inconsistencies in carriage requirements noted for a number of entries in Ch. 17, 18 and 21 of IBC Code. • Fully assessed LIST 1 MEPC.2/Circ 17 will go to Chapter 17 or 18, respective of their application. • Missing column I products were updated. • Chapter 19 - UN Numbers were removed and 2 qualifying footnotes about subset and chain length • introduced and new synonyms of cargoes implemented since BLG 14. **MSC 91** **MEPC 68: MARPOL Annex I Amendments:** The Committee adopted amendments to MARPOL Annex I, Reg. 12, which address oil residue (sludge) arrangements. The regulation restructured to incorporate existing Unified Interpretations relating to means of disposal, interconnections and tank cleaning arrangements. However, the revision no longer allows for existing arrangements where an oil residue (sludge) tank may have discharge connections to oily bilge water holding tank(s), tank top or oily water separators, as could be allowed under MEPC.1/Circ.753/Rev.1. Modifications that may be required to ships constructed before 1/1/2017 with MEPC.1/ Circ.753/ Rev.1 arrangements to be completed no later than the first renewal survey on or after 1/1/2017. **MEPC 70** **Oil Residue (Sludge) Tanks – Reg. 12 of MARPOL Annex I:** In light of amendments of MARPOL I, reg. 12, adopted by MEPC.266(68), the Committee approved a new MEPC circular containing revised interpretations of reg. 12. The new circular revokes previous interpretations, as well as those contained in MEPC.1/Circ.753/Rev.1. **Pollution Prevention Equipment for Machinery Space Bilges** The Committee adopted amendments to the Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships, resolution MEPC.107(49). The amendments clarify that: • The validity of calibration certificates for 15 ppm bilge alarms is subject to periodic verification at MARPOL Annex I annual/intermediate/renewal surveys; and

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		• The accuracy of 15 ppm bilge alarms is to be verified by calibration and testing of the equipment conducted by a manufacturer or persons authorized by the manufacturer. This is to be verified at intervals not exceeding five years or within the term specified in the manufacturer's instructions, if that is shorter. **MEPC 78:** **Watertight integrity:** Amendments to SOLAS Chapter II-1 will ensure that the requirements to watertight integrity in parts B-2 to B-4 capture the probabilistic damage stability approach in parts B and B-1. The amendments address inter alia assumptions regarding progressive flooding, valves in the collision bulkhead and the consideration of watertight doors. The amendments are a result of experience with the revised SOLAS Chapter II-1 after the probabilistic damage stability approach was introduced in the 2009 update of SOLAS. The approach assesses the probability of survival for a ship in case of damage, related to the extent and location of the damage. The probabilistic approach is perceived to give a more realistic representation of the condition of a ship in damaged situations, and to allow more freedom regarding, for example, the placement of watertight bulkheads. The amendments will apply to new cargo and passenger ships constructed on or after 1/1/2024 and will not have any impact on existing ships. **Watertight doors on cargo ships:** The requirements to watertight doors in MARPOL Annex I, the Load Lines Convention, the IBC Code and the IGC Code have been amended to harmonize the consideration of watertight doors in damage stability calculations with the same in SOLAS. The inconsistencies were related to the type of watertight doors (sliding, hinged), to the technical/ operational requirements and to the terminology for the frequency of use of watertight doors. The amendments to the Load Lines Convention and the IBC Code will enter into force on 1/1/2024, and theamendments to MARPOL Annex I and the IGC Code will enter into force on 1/1/2024. The amendments willapply to cargo ships and will not have any impact on existing ships.
6	Noise from commercial shipping and its adverse impacts on marine life Responsible Dept:Technical /Operations /HSEQ	**MEPC 66** approved Guidelines for reduction of underwater noise from commercial shipping to address adverse impacts on marine life in the form of a new Circular. The Guidelines recognize that the largest opportunity for reduction of underwater noise is during the design of new ships primarily attributable to propeller cavitation radiated noise, followed by hull design and machinery vibration. Noise reduction recommendations are primarily intended for consideration for new ships recognizing the practical challenges available for existing ships. **SOLAS Amendments (MSC.338(91)) entered into force on 1/7/ 2014.** **MSC 91: Ch. II-1, Reg. 3-12, Protection against noise:** Applies to ships of 1,600 GT or more, constructed on or after 1/1/2015 or delivered on or after **1/7/2018**. The ships shall be constructed in accordance with the **Code on noise levels on-board ships**. From 1/1/20: Because of a discrepancy in the application of the Code, there has been a necessary amendment through a minor modification in para. 2.1. of the regulation.

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		MEPC 76 agreed to commence further work on underwater noise form ships and include a new output on reviewof the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverseimpacts on marine life (MEPC.1/Circ.833) and identification of next steps.
7	Garbage Control – MARPOL Annex V Responsible Dept:Procurement/ Operations/ HSEQ	**Amendments to IMSBC Code (Amendment 05-19):** IMSBC Code is reviewed to consider new requirements for existing substances or new substances. Amendment 05-19 has been issued as a consolidated version of the IMSBC Code which is a full replacement of the existing Code. Amendment 05-19 includes new and amended schedules which will provide specific requirements for solid bulk cargoes intended to be carried under the IMSBC Code. Shipowners and operators should be aware of the changes and advise their masters accordingly. **Application:** All ships carrying solid bulk cargoes, other than grain, will be required to apply the amendments from **1/1/2021**; administrations may apply the requirements voluntarily from 1/1/2020. **MEPC 74:** The Committee approved the Terms of Reference for IMO Study on Marine Plastic Litter from Ships. To support the Action Plan to Address Marine Plastic Litter from Ships (Res. MEPC.310(73)), the Committee developed a grouping of short-, mid-, long-term and continuous actions to address marine plastic litter from ships. As per **India DGS Order No.5 & subsequent Addendum**, and as per the **State of Kuwait Circular No.8/2019**, single-use plastics are banned for use onboard merchant ships trading in Indian / Kuwaiti waters, regardless of Flag. India also requires a Ship Execution Plan, detailing the phase-out of single-use plastics onboard. The UK Chamber of Shipping has launched its new **Single-Use Plastic Charter**. The goal is ZERO pollution from ships to sea from plastic and the new Charter, which has 29 industry signatories aims to develop initiatives and replace nonessential single-use plastics as soon as possible, but no later than 31/12/2021. **MEPC 76** approved 2 circulars regarding marine plastic litter: • A circular on provision of adequate facilities at ports & terminals for the reception of plastic waste from ships. • A circular on sharing of results from research on marine litter and encouraging studies to better understand microplastics from ships. **MEPC 78** approved proposal to make GRB mandatory for ships of 100 GT and above but less than 400 GT witha view to adoption in 2024.
8	MSC Resolutions & SOLAS Responsible Dept:Operations /HSEQ	**1. Amendments to LSA Code (MSC 89/25 para. 3.43 and annex 4)** The Committee adopted, by Res. MSC.320(89), amendments to Chapter IV "Survival craft" of the Int. LSA Code entered into force on 1/1/2013 and introducing, inter alia, the following requirements in order to ensure that lifeboat on-load release mechanisms are adequately secure and cannot be released inadvertently: • the mechanism shall only open with the boat fully waterborne or, if not, by multiple, deliberate and sustained action which shall include the removal or bypassing of safety interlocks designed to prevent premature or inadvertent release (para. 4.4.7.6.2);

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		• unless a release mechanism is of the load over centre type, which is held fully closed by the weight of lifeboat, the hook assembly shall be designed so that the moveable hook component is kept fully closed by the hook locking parts capable of holding its safe working load under any operational conditions until the hook locking part is deliberately caused to open by means of the operating mechanism. For designs utilizing the tail of movable hook component and cam either directly or indirectly securing the tail of movable hook component, the hook assembly shall continue to be closed and hold its safe working load through rotation of the cam of up to 45 degrees in either direction, or 45 degrees in one direction if restricted by design, from its locked position (para. 4.4.7.6.3); • the release mechanism shall be designed so that, when it is fully reset in the closed position, the weight of the lifeboat does not cause any force to be transmitted to the operating mechanism (para. 4.4.7.6.4); • locking devices must cannot turn to open due to forces from the hook load (para. 4.4.7.6.5); if a hydrostatic interlock is provided, it shall automatically reset upon lifting the boat from the water (para. 4.4.7.6.6); • all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in marine environment without the need for coatings or galvanizing (para. 4.4.7.6.9); ▪ a hydrostatic interlock shall be designed for a factor of safety of not less than 6 times maximum operating force based on the ultimate strength of the materials used (para. 4.4.7.6.15); and ▪ the operating cables shall be designed for a factor of safety of not less than 2.5 times maximum operating force based on the ultimate strength of the materials used (para. 4.4.7.6.16). **2. Amendments to Revised recommendation on testing of life-saving appliances (Res. MSC.81(70))** (MSC 89/25 para. 3.45 & 8.14 and annexes 5 and 12) The Committee adopted amendments to Revised recommendation on testing of life-saving appliances (Res. MSC.81(70)) by the following resolutions: 1. Res. MSC.321(89), which introduces additional tests for the on-load release mechanism in Part 1 “Prototype tests for life-saving appliances”, due to new requirements introduced in LSA Code; and 2. Res. MSC.323(89), which, updates references to ISO and IEC standards and modifies the procedures for swamp test (para. 5.11 of Part 1) by deleting the simulation of waves washing over the liferafts. **MSC 95** The Committee adopted the **Int. Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code)** and amendments to SOLAS, Ch. II-1 Part G (MSC.392(95)). The Code’s mandatory provisions apply to new cargo ships ≥ 500gt using natural gas fuel: • with a building contract placed on or after 1 /1/ 2017; or • in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017; or

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		• regardless of the building contract or keel laying date, the delivery is on or after 1/1/2021. Two additional amendments to SOLAS were also adopted: • SOLAS reg. II-2/4 was amended to allow existing ships that were approved to use oil fuels with flashpoint less than 60°C, for example fuel oils less than 60°C but not less than 43°C in emergency generators, to continue using such oil fuels after the IGF Code comes into effect on 1/1/2017. • SOLAS Part F Reg. 55 was revised to account for the IGF Code requirement that ships using other low flashpoint fuels (methanol, propane, butane, ethanol, hydrogen, dimethyl ether, etc.) need to comply with the functional requirements of the Code through the alternative design regulation based on an engineering analysis. Operationally-dependent alternatives are not permitted. The Committee approved several MSC Circulars containing new or revised performance standards which are recommended to be used in conjunction with the application of SOLAS Ch. II requirements: • *Water mist, water spray and sprinkler systems:* MSC circular on Amendments to the Revised guidelines for maintenance & inspection of fire protection systems & appliances (MSC.1/Circ.1432). The Committee also approved several MSC Circulars containing Unified Interpretations on the following items: • The Noise Code (MSC.337(91)); • Insulation arrangements for prevention of heat transmission; • Fiber reinforced plastic gratings; • Means of Safe Access; • ESP Code; • Oxygen content of inert gas; and Continuous hatchways. <u>Draft amendments to **IGF CODE** (Applicable fire integrity of wheelhouse windows):</u> As per amendments to paragraph 3.2.5 of IGC Code (Res. MSC. 411(97)) inconsistencies were noted with respect to applicable fire integrity of wheel house windows, within the IGF Code. It was agreed to align the fire integrity requirements for navigation bridge windows specified in par. 11.3.2 of the IGF Code with the amendment to par. 3.2.5 of the IGC Code, as adopted by resolution MSC. 411(97) and those in SOLAS chapter II-2. **Ships using LNG as fuel:** IGF Code has been amended (apply to new ships using natural gas as fuel and will enter into force on 1/1/2024) to reflect experiences gained since the Code entered into force in 2017, as per below: • Cofferdams for fire protection purposes (Chapter 6.7) • Safe fuel distribution outside machinery spaces (Chapter 9) • Fire protection between spaces with fuel containment systems (Chapter 11) • Fixed fire-extinguishing systems in LNG fuel preparation spaces (Chapter 11)

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		MSC 105: Following Mandatory requirements were adopted (Applied to: on or after 1 January 2024) • Amendments to IMSBC Code (The 6th amendments to IMSBC Code including new cargos were adopted). • Amendments to IMDG Code (41st amendments to IMDG Code were adopted, to reflect the biennial amendments to "United Nations Recommendations on the Transport of Dangerous Goods". **Safe mooring operations:** New SOLAS requirements introduce additional requirements to selection, arrangement, inspection, maintenance and replacement of mooring equipment, including lines. Documentation regarding the design of mooring arrangements and the selection of mooring equipment will be required to be provided and kept on board. The new requirements are incorporated in SOLAS Regulation II-1/3-8 on towing and mooring equipment, and supported by the following guidelines: • Guidelines on the design of mooring arrangements and the selection of appropriate mooring equipment and fittings for safe mooring" (MSC.1/Circ. 1619) • "Guidelines for inspection and maintenance of mooring equipment including lines" (MSC.1/Circ.1620) • "Revised guidance on shipboard towing and mooring equipment" (MSC.1/Circ. 1175/Rev.1). The design requirements will apply to new cargo and passenger ships constructed on or after 1/1/2024 that are above 3000 GT and should also apply to ships of 3000 GT and below as far as reasonably practicable. The maintenance and inspection requirements will be applied retroactively for all ships. **Fault isolation of fire detection systems:** The requirements for fire detection systems have been adjusted so that short circuit isolators do not need to be provided at each individually identifiable fire detector for cargo ships and passenger ship balconies. For cargo ships, one short circuit isolator per deck will typically be acceptable. The amendments to Chapter 9 of the Fire Safety Systems (FSS) Code will enter into force on **1/1/2024**. **Life-saving appliances:** Various adjustments have been made to SOLAS Chapter III and the associated Life Saving Appliances (LSA) Code: • The launching appliance of new rescue boats less than 700 kg does not need to have stored mechanical power, but handling shall be possible by one person. • Free-fall lifeboats will not need to be launch-tested with the ship making headway at speeds of up to 5 knots in calm water, as there are no additional dynamic loads on the launching arrangements. • Lifeboats equipped with two independent propulsions systems do not need to be equipped with buoyant oars. The amendments will apply to cargo and passenger ships and enter into force on 1/1/2024. Flag states are invited to voluntarily apply the launch test provisions for free-fall lifeboats earlier.

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9	Piracy on High-Risk Areas Responsible Dept:Operations /HSEQ	**Implementation of Best Management Practice (BMP) to deter piracy off Coast of Somalia and in Arabian Sea Area:** The BMP contains a series of measures to be adopted by the Company and the Master before transit in the risk area off the Coast of Somalia and in the Arabian Sea Area (e.g. self-protection measures which include the use of closed circuit television, physical barriers, water spray and foam monitors; design and establishment of an internal "Safe Muster Point" or a secure "Citadel" to provide maximum physical protection to the crew) in case of an imminent attack, in the event of a military action and after the attack. **MSC 95:** The Committee approved an MSC Circular on Piracy and armed robbery against ships in waters off the coast of Somalia – Best Management Practices for Protection against Somalia-based Piracy, which explains the HRA established by the BMP and IMO's position on it. **MSC 98:** A Circular was approved on reporting of incidents of piracy and armed robbery against ships in Gulf of Guinea. The circular urges Flag States, masters, owners/operators and shipping companies to report incidents of piracy and armed robbery in a timely manner to reporting organizations, such as Maritime Domain Awareness for Trade – Gulf of Guinea (MDAT – GoG) and the Int. Maritime Bureau Piracy Reporting Centre (PRC). This would allow better response by coastal States, promptly alert other ships in the vicinity and develop an understanding of the risk level to ships operating in areas where incidents of piracy and armed robbery occur. As announced on 22/08/2022 from BIMCO, ICS, INTERCARGO, INTERTANKO, and OCIMF that the Indian Ocean HRA for piracy will be removed and agreement took effect on 01/01/2023.
10	GMDSS modernization plan Responsible Dept:Operations /Technical	MSC 98th approved the Modernization Plan of the GMDSS. The requirements to the GMDSS have been modernized to contain more generic requirements, independent of specific service providers, and to remove carriage requirements for obsolete systems. Furthermore, the requirements for communication equipment have been moved from SOLAS Chapter III on life-saving appliances to Chapter IV on radio communications. The definitions of the sea areas A1 to A4 have been amended to reflect that the geographical area of coverage may vary between various satellite service providers. The plan envisages the development of amendments to SOLAS and related instruments for approval in 2021 and adoption in 2022, with **entry into force in 2024.** As per IMO Resolutions MSC.430(98) and MSC.431(98), relating to amendments to the performance standards for Enhanced Group Call (EGC) and NAVTEX receiving equipment, equipment installed **on or after 1 July 2019** should be type approved to the amended performance standards. SOLAS reg. IV/7 requires GMDSS radio equipment for receiving NAVTEX broadcasts and EGC equipment for receiving maritime safety information broadcasts. SOLAS reg. IV/14 requires equipment to be type approved to the proper performance standards. Designers, shipbuilders and owners should ensure EGC and NAVTEX equipment installed **on or after 1 July 2019** are appropriately type approved.

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		From 1/1/20 and applicable to all ships: Amendments to SOLAS Chapter IV and Appendix to accommodate additional mobile satellite systems providers (except INMARSAT) recognized for use in the GMDSS. **From 1/1/21 and applicable to all ships (with GT≥ 500): SOLAS IV GMDSS Performance Standards:** Ship earth station which forms part of GMDSS, if designed to operate in a mobile satellite service recognized on or after 1/1/2021 complies with requirements of A.1001(25) & conforms to performance standards MSC.434(98). Ship earth station which forms part of GMDSS, if designed to operate in a mobile satellite service recognized on or after 1/1/2021 complies with the relevant requirements of A.1001(25) and conforms to performance standards. MSC.434(98) or MSC.130(75), if installed after 1/12/1999; A. 808(19), if installed on or after 23/11/1996 and before 1/2/1999; A.698(17) if installed before 23/11/1996. The amendments will enter into force on 1 January 2024. Existing SOLAS certificates do not have to be reissued before they expire as a consequence of the reorganization of SOLAS Chapters III and IV. **MSC 105:** Amendments to SOLAS etc. due to modernization of the GMDSS. Following recent modernization ofthe GMDSS, the draft amendments to SOLAS II-1, III, IV and V, and the appendix (Certificates), etc., wereadopted. In addition, the relevant performance standards, guidelines and guidance were also approved.
11	STCW Responsible Dept: Crewing /Operations /HSEQ	**Clarification of transitional provisions relating to 2010 Manila Amendments to STCW** The Committee approved STCW.7/Circ.16 containing clarifications on the following: • revalidation of certificates issued in accordance with the provisions of the Convention in force prior to 1/1/ 2012 and the issuance of certificates to seafarers who commenced approved seagoing service, an approved education and training program or an approved training course before and after 1/7/2013; • for seafarers holding certificates issued in accordance with the Convention which applied immediately prior to 1/1/2012 and who have not met the requirements of 2010 Manila amendments, the validity of any revalidated certificate must not extend beyond 1/1/2017; while for seafarers who have met the requirements of 2010 Manila amendments, the validity of any revalidated certificate can extend beyond 1/1/2017; • for seafarers who commenced approved seagoing service, an approved education and training program or an approved training course before 1/7/2013, the validity of any certificate issued should not extend beyond 1/1/2017, unless they meet the requirements of 2010 Manila amendments; while for seafarers who commenced approved seagoing service, an approved education and training program or training course after 1/7/2013 the validity of any certificate issued may extend beyond 1/1/2017; • transitional provisions which do not relate to certification issues: although the 2010 Manila amendments state that any amendments that do not directly involve certification of seafarers should be implemented by 1/1/2012, some aspects of training, such as ERM or BRM, are not required to be completed until 1/1/2017; • security-related training provisions: until 1/1/2014, it is sufficient to accept compliance with section 13 of the ISPS Code, even if the seafarer's documentation with regard to security-related training is not in accordance with the 2010 Manila amendments.

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		Advice for PSC officers on transitional arrangements leading up to full implementation of requirements of 2010 Manila amendments to STCW on 1/1/2017: The Committee approved STCW.7/ Circ.17 recommending Administrations to inform their PSC authorities on the clarification of transitional provisions relating to the 2010 Manila amendments issued by STCW.7/Circ.16. **MSC.478(102): All ships (with GT ≥ 500):** An amendment to Part B of STCW adopted in order to provide anupdated list of certifications which should be maintained. This guidance is provided for the benefit ofAdministrations, PSC, RO, other relevant parties in order to consistently enforce the STCW Code.
12	Reduction of GHG emissions from ships Responsible Dept:Technical	**Amendments to NOx Technical Code on certification of marine diesel engines fitted with Selective Catalytic Reduction (SCR) systems under the NOx Technical Code 2008** The Committee adopted revisions to NOx Technical Code which, on entry into force on 1/8/2013, allow for an alternative approach (Scheme B) to be used to certify engines fitted with selective catalytic reduction (SCR) units. Scheme B allows certification of engines, which cannot be pre-certified either on a test bed or onboard under the NOx Code's standard requirements, by allowing for analytic modelling to estimate the effect that the proposed SCR design and arrangement will have on the NOx emissions from the engine to which it is to be fitted. This modelling is to be validated by testing that can be undertaken using a scaled bench top mockup operating on synthetic exhaust gas. The entire Engine Group (engines that require minor onboard adjustments and modifications) would not be approved until the NOx reduction efficiency, relative to the Parent Engine NOx Technical File, has been demonstrated with the SCR installed onboard. **Summary:** Whereas the existing text only provided for the engine plus any NOx reducing device to be tested together it is now proposed, subject to the agreement of the Administration, that the totally different approach of Scheme B as given by the SCR Guidelines could alternatively be followed. There will be problems with ship delivery where there is either a failure to demonstrate compliance at the Onboard Confirmation test or where the Parent Engine installation is delayed relative to that of Member Engines. Should Scheme B approach not prove to be sufficiently rigorous and it is subsequently established that engine and SCR arrangements fully certified in accordance with Scheme B do not in fact perform as required (e.g., attempting to apply the Direct Measurement and Monitoring option as the Onboard NOx Verification) then ships with such engines installed would not be able to operate in ECA-NOx areas. Some States (e.g., US) are looking into the possibility of imposing such measures to engines operating in their ECA-NOx waters. It must be ensured that the contracts placed ensure through life support of SCR both in terms of functionality and required performance and, Approved by: Agreed by: Issued by: Fleet Manager Quality Manager Managing Director notwithstanding the limitation given in Guidelines, that newbuilding contracts must require satisfactory completion of Onboard Confirmation test for each Member Engine of an Engine Group established on the basis of Scheme B. **Applicability:** All diesel engines to which the NOx Technical Code applies fitted with SCR units where the Administration agrees to the application of Scheme B as given in the SCR Guidelines.

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		MEPC 65 **Implementation of Tier III NOx Standards (related to MARPOL Annex VI):** MARPOL Annex VI requires the reduction of NOx emission from ships in a phased approach. While the Tier III NOx Standards was scheduled from 2016, the final decision on its implementation date will be made upon the review of the status of technological developments for its implementation. **MARPOL Annex VI revisions -application of NOx Code Tier III emission standard to New ECAs** MEPC 66 decided that for any future new ECA, the TIER III requirement will be made mandatory for ships constructed (keel laid) on or after the adoption of the ECA, or any date decided by the party(ies) proposing the ECA but not earlier than the adoption date. Additionally, MEPC agreed to expand the scope of engines subject to NOx controls from the current liquid and dual fuel engines to include gas-fueled engines from a yet to be set date. The Committee agreed that the 3 technologies - selective catalytic reduction (SCR), exhaust gas recirculation (EGR) and dual-fuel LNG) - are now commercially available. MEPC adopted amendments to MARPOL VI which require compliance with Tier III emission standard by marine diesel engines installed: • On ships constructed on or after 1/1/2016 operating in North American ECA or US Caribbean Sea ECA. • On ships constructed on, or after the date of adoption of a new ECA, or a later date as may be specified in the amendment designating the new ECA, whichever is later for operation in the new ECA. EXEMPTIONS are provided for marine diesel engines installed: • On purely recreational ships with a length less than 24 m. • On a ship with a combined propulsion power less than 750 kW if it is demonstrated that the ship cannot comply with Tier III because of design or construction limitations of the ship; and • On purely recreational ships constructed prior to 1 /1/ 2021 of less than 500 GT and with a length ≥24 M. **MEPC 70:** The MEPC approved the designation of North Sea, English Channel and Baltic Sea as emission control areas (ECA) for NOX under Reg. 13 of MARPOL Annex VI. **Amendments to MARPOL Annex VI, Appendix V - Bunker Delivery Note** **Background:** The existing Appendix V to MARPOL Annex VI does not provide for provision of fuel oils which do not meet the sulphur limits of either reg. 14.1 (outside ECAs) or reg. 14.4 (within ECAs). This is not an undue issue for users of exhaust gas cleaning systems (EGCS) as an approved equivalent means while the applicable 14.1 limit is 3.50 % max sulphur, however when this is reduced to 0.50% then problems arise. **Summary:** The revised bunker delivery note includes a new entry (selection box) for the “purchaser’s specified limit value” of the sulphur content. This means that even fuels with higher sulphur content than required by regulation 14 of Annex VI can be delivered to a ship where the ship uses equivalent measures such as an EGCS. **MEPC 78: EGCS:** Guidelines for risk and impact assessment of the discharge water from EGCS were approved.The guidelines provide information on the recommended

<table>
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<tr><td></td><td></td><td>methodology for risk and impact assessment thatmember states should follow when considering local or regional regulations concerning EGCS discharge water.Guidance regarding the delivery of EGCS residues to port reception facilities was approved.</td></tr>
<tr><td>13</td><td>International Code for ships operating in polar waters (Polar Code)

Responsible Dept:Technical</td><td>
IMO in November 2014 adopted the Int. Code for Ships Operating in Polar Waters (Polar Code), and related amendments to SOLAS to make it mandatory. The Polar Code is intended to cover the full range of shipping related matters relevant to navigation in waters surrounding the 2 poles – ship design, construction and equipment; operational & training concerns; search & rescue; and, equally important, the protection of the unique environment and eco-systems of the polar regions.
Environmental provisions include requirements covering:

Prevention of oil pollution;
Prevention of pollution from noxious liquid substances from ships;
Prevention of pollution by sewage from ships;
Prevention of pollution by discharge of garbage from ships.

MEPC 67 decided that “Polar Waters” means “Arctic waters and/or the Antarctic area”. At this session, draft amendments to MARPOL Annexes I, II, IV & V were approved for adoption at MEPC 68 with entry into force on 1/1/2017. The following provides an overview of the mandatory Part II-A:
<table>
<tr><th>Ship Type</th><th>Category A</th><th>Category B</th><th>Category C</th></tr>
<tr><td>Design Conditions</td><td>Medium (70-120 cm) first year ice and greater</td><td>Thin (30-70 cm) 1st year ice</td><td>Less than Cat B ice and/or open water</td></tr>
<tr><td>Oil/Oily Water Discharge</td><td>Prohibited, except from machinery spaces on existing shipsoperating continuously in Arctic waters (>30 days) until 1stINT or REN Survey carried out 12 months after entry into force</td><td colspan="2">Prohibited</td></tr>
<tr><td>Fuel Oil Tanks</td><td>0.76m outer shell protection for FO tanks >30m3 in new ships</td><td colspan="2">n/a</td></tr>
<tr><td>Cargo Oil Tanks</td><td>0.76m outer shell protection for all cargo oil tanks in newships</td><td colspan="2">n/a</td></tr>
<tr><td>Oily Bilge Water &Sludge Tanks</td><td>0.76m outer shell protection for all Oily Bilge Water & SludgeTanks >30m3 in new ships</td><td colspan="2">n/a</td></tr>
<tr><td rowspan="2">Noxious Liquid Substances (NLS)</td><td colspan="3">Discharge of NLS and mixtures containing NLS are prohibited</td></tr>
<tr><td>Carriage in Ship Type 3 hull requires Flag State approval</td><td colspan="2">n/a</td></tr>
<tr><td>Sewage Dischargebeyond MARPOL IV</td><td colspan="3">Discharge is prohibited from category A and B ships constructed on or after 1/1/2017 constructed on or after 1/1/2017, exceptwhen such discharges are in compliance with para 4.2.1.3 of MEPC 68/21/Add.1./ Chapter 4. Notwithstanding requirementsof</td></tr>
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		para 4.2.1, category A & B ships that operate in areas of ice concentrations > 1/10 for extended periods of time, may onlydischarge sewage using an approved STP, certified by the Administration to meet operational requirements of MARPOLAnnex IV.
Discharge	Garbage (Food Waste)	Prohibited onto ice and <12nm from nearest land, ice shelves and fast ice, for ice concentrations > 1/10Additional treatment requirements.
	Garbage(Cargo Residue)	Discharge of animal carcasses prohibited.Special requirements for cargo residue discharge.
Note - New Ship means a ship constructed (keel laid on/after Polar Code entry into force date)		

MEPC 68 adopted the environmental requirements (parts II-A & II-B) of Polar Code, and the associated MARPOL amendments to make the Code mandatory. The Polar Code came into force on 01/01/2017. The safety part of the Code (Part IA) applies to new ships carrying SOLAS certificates with a keel lay date on or after 01/01/2017. Part IA also applies to existing ships from their first intermediate or renewal survey (whichever comes first) on or after 01/01/2018. The environmental protection part of Code (Part IIA) applies to all ships and offshore assets operating in polar waters from 01/01/2017. Part IIA contains requirements that can usually be met with shipboard operations – no structural modifications are necessary. The key requirements in Part IIA are:

- Zero discharge of oil and oily mixtures when operating in polar waters.
- Zero discharge of noxious liquid substances.
- Additional limitations above MARPOL Annex IV requirements for discharge of sewage.
- Additional limitations above MARPOL Annex V requirements for discharge of garbage.

31st IMO Assembly: Polar Shipping: A resolution on Interim safety measures for ships not certified under the SOLAS Convention operating in polar waters was adopted, which urges Member States to implement, voluntarily, safety measures prescribed in the Polar Code on ships not certified under the SOLAS Convention.

MEPC 76 adopted amendments to MARPOL Annex I that introduce a prohibition on the use and carriage for use as fuel of heavy fuel oil (HFO) by ships in Arctic waters. The prohibition will apply on and after 01/07/2024, except for vessels which meet certain construction standards with regard to oil fuel tank protection in MARPOL Annex I or the Polar Code, for which the prohibition will apply on and after 01/07/2029. Exception provided as per Polar Code, II-A, 1.2.1: “For category A and B ships constructed on or after 1 January 2017 with an aggregate oil fuel capacity <600 m3, all oil fuel tanks shall be separated from the outer shell by a distance of not <0.76 m. This provision does not apply to small oil fuel tanks with a maximum individual capacity not >30 m3.”. A State Party to MARPOL with a coastline which borders on Arctic waters may waive the requirement for ships flying its flag while operating in waters subject to that Party’s sovereignty or jurisdiction up to

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		01/07/2029. Amendments are contained in Res. MEPC.329(76) and are expected to enter into force on 01/11/2022.
14	Biofouling State regulations/ Anti-fouling systems ResponsibleDept:Technical	New Biofouling State regulations become effective on 1 October 2017. These regulations adopt a new annual vessel reporting form and require development of a biofouling management plan and related recordkeeping. The provisions that will become effective on October 1, 2017, are: • Repeal of the reporting requirements for the Hull Husbandry Reporting Form, the Ballast Water Treatment Supplemental Reporting Form and the Ballast Water Treatment Annual Reporting Form. • Adoption of Marine Invasive Species Program Annual Vessel Reporting Form (which is to be submitted to state either in writing or electronically at least 24 hours before a vessel's first arrival in California in each calendar year). The key part of the biofouling rule will go into effect on any newly constructed vessel delivered into service on or after January 1, 2018. The effective date for an existing vessel will occur upon the completion of its first regularly scheduled out-of-water maintenance on or after January 1, 2018. Remaining requirements are: • Developing and maintaining a Biofouling Management Plan and a Biofouling Record Book • Mandatory biofouling management of the vessel's wetted surfaces • Mandatory biofouling management for vessels that undergo an extended residency period (i.e., remain in the same location for 45 or more days) **MEPC 75** approved: • amendments to annexes of AFS requiring ships to stop using antifouling systems containing cybutryne from 01/01/2023, and • removal or sealing such anti-fouling systems from existing ships with an appropriate barrier at the next scheduled renewal of the anti-fouling system after 01/01/23, but not later than 60 months following the last application of such anti-fouling system prior to 01/01/2023. **As of 15/06/ 2022**, Australia requires all vessels entering, or intending to enter, Australian territorial waters on any voyage that commenced outside Australian territorial waters to carry a compliant Biofouling Management Plan and associated Record Book. The following information is to be included in a vessel's pre-arrival report: • details of any inspections of the vessel for biofouling, cleaning of biofouling or treatment for biofouling undertaken prior to the vessel's arrival in Australian territory; • details of any inspections of the vessel for biofouling, cleaning of biofouling or treatment for biofouling intended while the vessel is in Australian territory; • practices included in any plan of biofouling management for the vessel that is currently in use; and • details of the voyage history of the vessel in the past 12 months. A Biofouling Management Plan and associated Record Book that are compliant with the *IMO 2011 Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species*, will be considered sufficient in meeting the Australian biofouling management requirements.

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		From 15/06/2022 new requirements began for managing biofouling on international vessels arriving in Australia. Operators of all vessels subject to biosecurity control will be required to provide information on how biofouling has been proactively managed prior to arriving in Australian territorial seas. This information to be reported through the Department of Agriculture, Fisheries and Forestry's Maritime Arrivals Reporting System (MARS). Information will be used to target vessel interventions. This will allow more efficient use of resources and statutory powers to assess and inspect vessels, and more effective response to unacceptable biosecurity risks associated with biofouling. Vessel operators will receive less intervention for biofouling if they comply with one of the following 3 accepted biofouling management practices: 1. Implementation of an effective biofouling management plan 2. Hull and niche areas cleaned of all biofouling within 30 days prior to arriving in Australian territory, or 3. Implementation of an alternative biofouling management method pre-approved by the department. A vessel operator that has not applied one of these 3 accepted biofouling management practices will be subjectto further questions and assessment of the biosecurity risk associated with biofouling on the vessel.
15	Cyber Risk Management Responsible Dept: IT	The MSC adopted a resolution on Maritime cyber risk management in safety management systems. Theresolution encourages Administrations to ensure that cyber risks are addressed in safety management systemsno later than the first annual verification of the company's DOC after 1 /1/ 2021. The MSC also approved thejoint MSC-FAL circular on Guidelines on maritime cyber risk management, based on the interim guidelines onguidelines on maritime cyber risk management (MSC.1/Circ.1526). The Circular provides high-levelrecommendations for cyber risk management, which refers to a measure of the extent to which a technologyasset is threatened by a potential circumstance or event, which may result in shipping-related operational, safetyor security failures as a consequence of info or systems being corrupted, lost or compromised.
16	EU General Data Protection Regulation Responsible Person: HR Department	The aim of GDPR is to protect all EU citizens from data breaches in an increasingly data-driven world that is vastly different from the time in which the 1995 directive was established. As of 25/5/2018, the GDPR will come into force, affecting all European Union established businesses, as well as enterprises not established in the EU but either offering goods or services to, or monitoring the behavior of, natural persons residing in the EU. The Regulation can cover businesses that are registered outside the Union, since it applies to companies exercising an "effective and real activity through stable arrangements" within the Union, and therefore covers all foreign enterprises having an office in the EU and processing personal data in the context of that office. The GDPR imposes obligations to companies that process personal data; more specifically, these obligations apply, among others, for data controllers, namely for companies that process and determine the purpose for the processing of any information relating to identified or identifiable natural persons. Such obligations among others include: • the obligation to only process data that are absolute necessary for legitimate processing purposes; • the obligation to only process data if one of the prescribed legal bases for such processing exists; • the obligation to process data for no longer than is necessary for the

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		purposes for which the personal data are processed; and • the obligation to comply with prescribed data subject rights (e.g., the right to be informed about the aspects of the processing activities before such activities begin). As such, companies falling within the scope of the Regulation need to engage into a GDPR-compliance planthat will render them as prepared as possible for the entry into force of the Regulation.
17	MARPOL Amendments Responsible Dept:Operations /HSEQ /TECH	**MEPC 74:** The following MARPOL amendments were adopted: • **Use of electronic record books:** Amendments to allow for electronic record books to be used were adopted, for Annex I - Oil Record Book Part I – Machinery space operations and ORB Part II – Cargo/ballast operations; Annex II - Cargo Record Book; and Annex V - Garbage Record Book; and Annex VI for records relating to Reg. 12 – Ozone-depleting substances, Reg. 13 – NOX and Reg. 14 – SOX and particulate matter. Amendments are expected to enter into force on 01/10/2020. The period until the entry into force of the finalised amendments is considered as a trial period during which ships are encouraged to use electronic record books in addition to (handwritten) record books in hard copy with a view to gaining experience. USCG and other coast guards only accept handwritten Oil Record Books and NOT signed printouts. • **NOX Technical Code 2008 amendments:** The amendments relate to the use of Electronic Record Books, and Certification requirements for selective catalytic reduction (SCR) systems. A related MEPC resolution on Amendments to the 2017 Guidelines addressing additional aspects of the NOx Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with selective catalytic reduction (SCR) systems was adopted. The expected entry into force date is 01/10/2020. • **Cargo residues and tank washings of persistent floating noxious liquid substances:** Amendments to MARPOL Annex II to strengthen, in specified sea areas, discharge requirements for cargo residues and tank washings containing persistent floating products with a high-viscosity and/or a high melting point that can solidify under certain conditions (e.g. certain vegetable oils and paraffin-like cargoes), following concerns about the environmental impact of permissible discharges. The amendments add new paragraphs to MARPOL Annex II Reg. 13 to require prewash and discharge of residue/water mixture generated during the prewash to a reception facility, for specific products, in specified areas (North West European waters, Baltic Sea area, Western European waters and Norwegian Sea). The expected entry into force date is 01/01/2021. • **EEDI regulations for ice-strengthened ships:** Other amendments to MARPOL Annex VI were adopted, relating to EEDI regulations for ice-strengthened ships, replacing the words "cargo ships having ice-breaking capability" with "category A ships as defined in Polar Code". The expected entry into force date is 01/10/2020. **MEPC 78:** • Decided to approve the designation of Mediterranean Sea an ECA for SOx and PM and approve amendments to MARPOL Annex VI, Regulation 13 and Appendix VII to clarify the new emission control areas, to be adopted at MEPC 79 and is expected to take effect from 01/07/2025.

No.	Legal & Other Requirements- Amendments & New Regulations	Executive Summary
18	EPIRBs / VDRs Responsible Dept: Technical	Shipowners and ship managers should ensure that Voyage data recorders (S-VDRs/VDRs) and EPIRBs due to be installed on or after 1 July 2022* are approved to latest performance standards. The testing and maintenance of EPIRBs should also be done according to the latest guidelines, particularly for GNSS/AIS enabled EPIRBs. **EPIRBs:** Float-Free EPIRBs form an important part of the GMDSS equipment on sea-going vessels. The IMO has published Resolution MSC.471(101), which contains a revised performance standard for EPIRBs aimed at further improving the capability of these devices to assist in distress alerting and locating. The main updates in the new performance standard are mandatory requirements for the beacon to include a global navigation satellite system (GNSS) receiver (e.g., GPS, GLONASS) and an AIS transmitter, so that the beacon's emergency signal includes a position fix and AIS locating signal. EPIRBs installed on or after 1 July 2022* are required to be type approved to the new performance standard. *For application of resolution MSC.471(101), the phrase "installed on or after 1 July 2022" has been interpreted by IACS as follows: 1. for ships for which the building contract is placed on or after 01 July 2022, or in the absence of the contract, constructed on or after 01 July 2022, "installed on or after 01 July 2022" means any installation on the ship; and 2. for ships other than those ships prescribed in (1) above, "installed on or after 01 July 2022" means a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 01 July 2022. As a result of the new performance standard, the IMO has revised the following guidance documents relating to testing and maintenance of EPIRBs to include requirements for the new GNSS/AIS enabled EPIRBs: • MSC.1/Circ.1039/Rev.1 - Guidelines for Shore-Based Maintenance of EPIRBs • MSC.1/Circ.1040/Rev.2 - Guidelines for Annual Testing of EPIRBs **VDRs:** are the equivalent of an airplane's 'black box' equipment carried on sea-going vessels. The update to the EPIRB performance standard has had a knock-on effect on the IMO's VDR and S-VDRperformance standards, as the VDR's float-free data capsule is required to meet the requirements of the latestEPIRB performance standard. VDRs installed on or after 1 July 2022*, are to be approved to IMO Resolution MSC.333(90), as amended by MSC.494(104). Similarly, S-VDRs installed on or after 1 July 2022*, are to beapproved to IMO Resolution MSC.163(78), as amended by Resolution MSC.214(81) and MSC.493(104).
19	LoF 2020 Responsible Dept: Operations	LOF provides a regime for determining the amount of remuneration to be awarded to salvors for their servicesin saving property at sea and minimising or preventing damage to environment. The form is administered byLloyd's Salvage Arbitration Branch whose role is to provide a reputable and secure framework within which theLOF arbitration process can operate. The Form is accompanied by the Lloyd's Salvage Arbitration Clauses(LSAC) which combine the old LSSA Clauses and Procedural Rules. The updated format is in force from **01/01/2020**.
20	Operation of Heating,	The European Parliament is going to vote for 3 binding targets for 2030: a 40% cut in greenhouse gases, compared with 1990 levels; at least 30% of energy to come from

No.	Legal & Other Requirements- Amendments & New Regulations	Executive Summary
	Ventilation and Air Conditioning (HVAC) System in offices Responsible Person:Management	renewable sources; and a 40% improvement in energy efficiency. **Dir. 2012/27/EU of European Parliament and of Council of 25 October 2012 on energy efficiency** On 25 October 2012, the EU adopted the Dir. 2012/27/EU on Energy Efficiency. This Directive establishes acommon framework of measures for the promotion of energy efficiency within the Union in order to ensure theachievement of the Union's 2020 20 % headline target on energy efficiency and to pave the way for further energy efficiency improvements beyond that date. It lays down rules designed to remove barriers in the energymarket and overcome market failures that impede efficiency in the supply and use of energy and provides forthe establishment of indicative national energy efficiency targets for 2020. The Energy Efficiency Directive 2012(EED) was brought into force on 04/12/2012. It introduces binding measures for energy efficiency on the publicsector and industry and covers the entire energy chain from generation and transmission to end use. EU memberstates have to implement the EED by 05 June 2014. According to Article 24, para 11, of the Energy EfficiencyDirective the "Commission shall make the reports referred to in paras 1 and 2 publicly available". Reports arepublished on the website of DG Energy as soon as they are received from Member States.
21	Garbage & Disposal of e-waste Responsible Person:Operations department	EU-Directive on single-use plastics

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
SOLAS	Chapters II-2 and/or III	1/01/2019	Applicable to all ships constructed on or after 1 /1/ 2019 and existing ships which undergo repairs, alterations, modifications and outfitting within the scope of SOLAS Ch. II-2 and/or III, as applicable, on or after 1 /1/ 2019	IMO Assembly 30 adopted res. A.1116(30) Escape route signs and equipment location markings, which harmonizes requirements of SOLAS regs II-2/13, III/9, III/11 & III/20 taking into account the ISO 24409 series. The resolution incorporates the ISO graphical symbols without changes.
SOLAS	II-2/1.2.5 (new para.) & II-2/10.10.1.2	2019-06-30	Cargo vessels, keel-laid <= 2014-06-30. New parameters may be early applied with consent from flag.	Final date for complying with Reg. II-2/10.10.1.2, i.e. low volume alarm on self-contained compressed air breathing apparatus for fire-fighter's outfit required.
SOLAS	III/1.5 (new para. .5)	2019-07-01 First dry-docking after 2014-07-01, at latest by 2019-07-01.	All cargo vessels.	Last date for existing lifeboat on-load release mechanisms not complying with new paragraphs 4.4.7.6.4 to 4.4.7.6.6 (hook stability, locking devices and hydrostatic interlock) of the LSA Code, as amended by res. MSC.320(89), to be replaced with equipment complying with the amended Code. Guidelines, MSC.1/Circ.1392, for evaluation and replacement has been developed.
BWM	B-3	2019-09-08 First OPP renewal survey after	Cargo vessels, keel-laid <= 2017-09- 07. Also applicable to floating platforms, FSUs and FPSOs. If with ballast water capacity and subject to Article 3 of the BWM Convention.	The D-2 standard to be met at the first IOPP renewal survey after 2017-09-08, if survey is completed after 2019-09-08. For vessels < 400 GT and for floating platforms, FSUs and FPSOs, no survey nor certificate required, unless required by flag. The D-2 standard to be met at second IOPP renewal survey after 2017-09-08, if the first IOPP renewal survey after 2017-09-08 is completed prior to 2019-09-08. This applies provided that an IOPP renewal survey is not completed in the period on or after 2014-09-08 and prior to 2017- 09-08. For vessels < 400 GT and for floating platforms, FSUs and FPSOs, no survey nor certificate required, unless required by flag.
BWM	A-1 (new para.8) & D-3	2019-10-13	All cargo vessels. Installations on or after 2020-10-28. Also applicable to floating platforms, FSUs and FPSOs. If with ballast water capacity and subject to Article 3 of the BWM Convention.	BWMS installed on or after 2020-10-28 shall be in compliance with the BWMS Code (Res. MEPC.300(72)). BWMS installed before 2020-10-28 shall be in compliance with Guidelines (G8) or its revisions, as appropriate. An UI of Appendix I clarifies that the 'installed' means the contractual date of delivery of the ballast water management system. In absence of this date, actual date of delivery may be used.
BWMS Code		2019-10-13	All cargo vessels. Type approval of Ballast water management systems	Introduction of the BWMS Code. The Guidelines (G8) and its revisions have been made mandatory under the BWM Convention in the form of this code.
MARPOL	Revised Annex VI, Reg. 14.1.3	2020-01-01	All cargo vessels, HSC/ DSC vessels. Not applicable for ships with scrubbers.	Requirement to maximum sulphur content of fuel oil changed. Worldwide: 0.50 % m/m.
FSS Code	8.2.4.1	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 2020-01-01.	Specification of water quality for sprinkler systems to be paid special attention to (added para 2.4.1.2).

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
FSS Code	Ch.17 (new Ch.)	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 2020-01-01.	Helicopter facility foam firefighting appliances: New Ch.17 details the specifications for foam firefighting appliances for protection of helidecks and helicopter landing areas. MSC.1/Circ.1523 invites for early implementation. For relevant SOLAS amendments see regulation II-2/3.57 and 3.58 and regulation II-2/18.
SOLAS	II-2/3.57 & .58 (new sub-para.)	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 2012-07-01.	Definitions of Helicopter landing area and Winching area added.
SOLAS	II-2/18.2.3 (new para.), .2.4 & .5.1.6 (new para.)	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 2020-01-01.	Ship having a helicopter landing area or helideck to be provided with foam firefighting appliances in accordance with the Ch. 17 of the FSS Code.
SOLAS	III/3.25 (new para)	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 1998-07-01.	The definition 'Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear' added, which refers to MSC402(96). This establishes a uniform & safe standard for this.
SOLAS	III/20.3.1 & .20.11	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 1998-07-01.	Reg. 20.11 revised to clarify that maintenance, thorough examination, operational testing and overhaul of launching appliances, lifeboat and rescue boat release gears and davit launched liferaft automatic release hooks shall be carried out in accordance with new mandatory Res. MSC. 402(96) replacing the non-mandatory MSC.1/ Circ.1206/ Rev.1.
SOLAS	Chapter II-2/10.5	2020-01-01	ships constructed before 1/1/2020 including those constructed before 1/7/2012.	Ships fitted with boilers that are protected by a water-based local application fire-extinguishing system are no longer required to provide the approved foam-type extinguisher of 135 l capacity.
IMDG Code (IMO Resolution MSC. 442(99))	Technical and editorial changes to the Code's operational requirements.	1/01/2020 (voluntary application from 1 /1/ 2019)	All shipowners, operators and shippers involved in transporting packaged dangerous goods.	Part 1: New and amended definitions, general provisions, training provisions and security provisions. Part 2: Updates to the classification of substances, new provisions for the transport of samples and the transport of wastes, and amendments to chapter 2 regarding explosives, gases, flammable liquids and flammable solids. There is also a new chapter (2.8) on corrosive substances and changes to chapter 2.9 with regard to lithium batteries. Part 3: Various updates to Dangerous Goods List and Special Provisions including new provisions applicable to lithium batteries and vehicles powered by a fuel cell engine. Part 4: New and amended packing instructions, including special provisions for portable tanks. Part 5: Revised marking, placarding and transportation documentation requirements, including a new section on labels for articles containing dangerous goods transported as UN numbers 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547 and 3548. Part 6: Amends Ch. 6 and includes class 6.2 substances. New ISO standards for gas cylinders of all types. Part 7: A new paragraph regarding the transport to or from offshore oil platforms, mobile offshore drilling units and other offshore installations. A new stowage code

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
				(SW3) for special stowage provisions.
SOLAS	II-1/3-12.12.2.1	2020-01-01	Cargo vessels, keel-laid >= 2009-01-01, delivery date <= 2018-06-30, contract date <= 2014-06-30.	Protection against noise: Clarification on application of protection against noise for ships delivered before 1/7/2018 and contracted for construction before 1/7/2014 and the keels of which are laid on or after 1/1/2009. A correction of the new noise code application paragraph to clarify that ships with the absence of a building contract that are constructed (keel-laid) on or after 2015-01-01 and delivered before 2018-07-01 need not comply with the new noise code, but with the old noise regulations.
SOLAS	II-2/1.2.9 (new para). & 10.5.1.2.2	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid <= 2019-12-31.	Firefighting: Allowance of existing ships built before 2020 to remove/not carry the 135 l foam type extinguisher for fire-protection of boilers that are protected by fixed water-based local application fire-extinguishing systems. Amended Reg 1.2.9 clarifies that the amended Reg.10.5.1.2.2 applies to ships constructed before 1/1/2020, including those constructed before 1/7/2012.
SOLAS	XI-1/2-1 (new reg.)	2020-01-01	All cargo vessels.	Enhanced surveys: Intermediate and renewal surveys of non-ESP vessels may be carried out as for ESP vessels.
FSS Code	Ch.13/2.1.2.2.2.1	2020-01-01	Cargo vessels, HSC/ DSC vessels, keel-laid >= 2020-01-01.	Arrangement of means of escape and distribution of persons: Case 2 is amended to state "1/3 of the crew distributed in public spaces". Clarifying the distribution of crew in public spaces, since the idea is not to fill spaces to 1/3 of their capacity with crew.
2008 IS Code	Introduction and Part A	2020-01-01	All cargo vessels.	The application has been extended to provide non-mandatory stability criteria when engaged in anchor handling, towing and escort or lifting operations.
	Part B			New stability criteria supplement or partially replace the stability criteria valid for ships during anchor handling, towing and lifting operations.
SOLAS	II-1/1.1.1.1 & 1.1.1.2 (new para.)	2020-01-01	All cargo vessels.	Application dates of amendments to parts B, B-1, B-2 and B-4 as per MSC.421(98) which enters into force 2020-01-01, are inserted.
SOLAS	II-1/2	2020-01-01	Cargo vessels, contract date >= 2020-01-01. This regulation applies if building contract > 2020-01-01, or in the absence of building contract, if keel-laid > 2020-07-01, or if delivery >= 2024-01-01.	Definitions revised, i.e., Load line length (L) is now used as regulatory parameter instead of other definitions of length.
SOLAS	II-1/4			The footnote is deleted from preceding version and replaced with a regulatory text listing equivalent mandatory instruments and a footnote covering non-mandatory standards.
SOLAS	II-1/5 & 5-1			Implementation of L instead of Ls in Reg.5 and re-writing of some paragraphs in Reg. 5-1 for more flexible handling of stability limits with respect to trim. Also some text improvements in 5-1.
SOLAS	II-1/7, 7-1, 9, 0,12, 13, 14, 16			Minor revisions, editorial changes and renumbering.

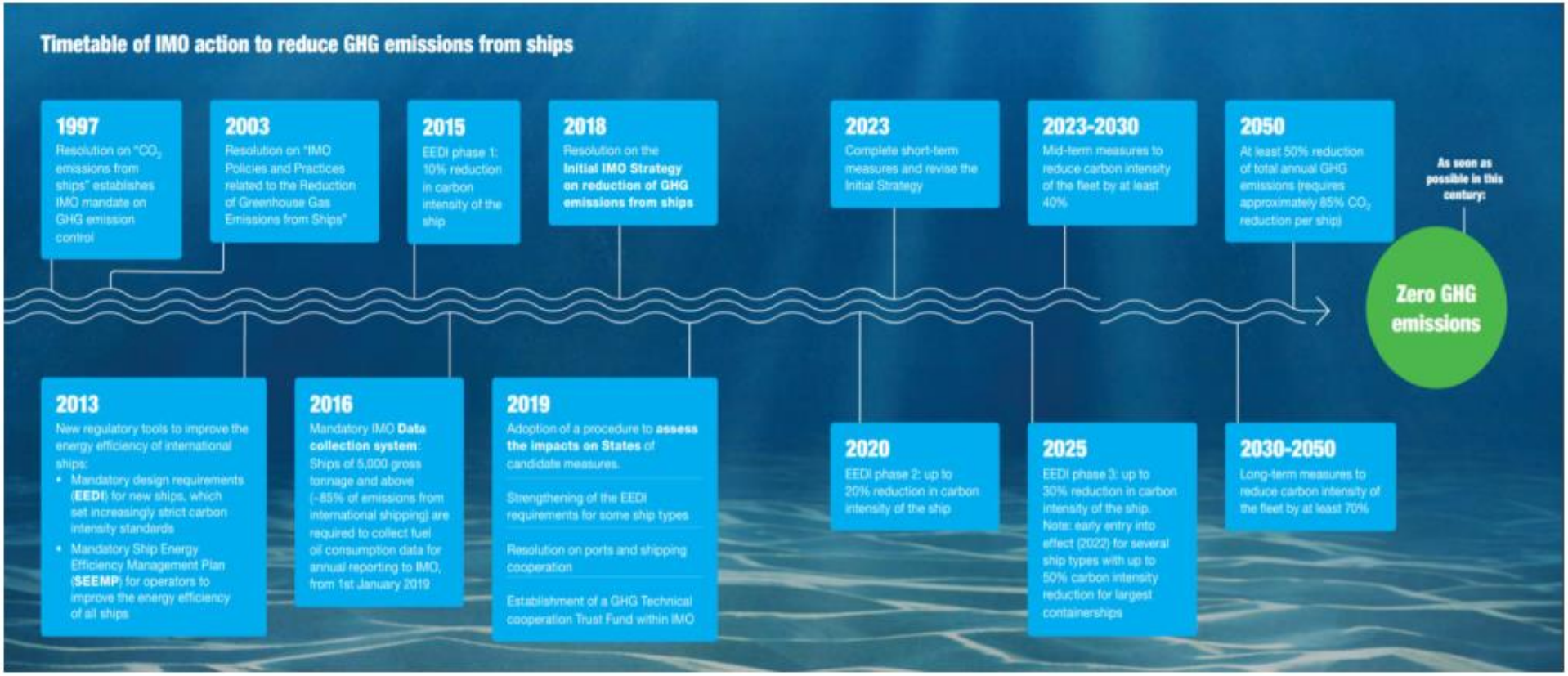
IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
SOLAS	II-1/12.6	2020-01-01	Cargo vessels, contract date >= 2020-01-01. This applies if building contract > 2020-01-01, or in absence of building contract, if keel-laid > 2020-07-01, or if delivery >= 2024-01-01.	The use of butterfly valves instead of screw down valves on the after side of the collision bulkheads are accepted. Member states may apply this regulation earlier with reference to MSC.1/ Circ.1567.
SOLAS	II-1/16.2	2020-01-01	Cargo vessels, contract date >= 2020-01-01. This regulation applies if building contract > 2020-01-01, or in the absence of building contract, if keel-laid > 2020-07-01, or if delivery >= 2024-01-01.	Requirements are extended to cover ships not covered by damage stability requirements. In addition, hatches, which are defined as watertight, shall also be tested in the same way as watertight doors.
SOLAS	II-1/20			Formal requirement for determining stability after loading now also applies to cargo ships.
SOLAS	II-1/21 and 22			The option to let certain watertight doors remain open during navigation is removed
SOLAS	II-1/35-1.2.6, .3.4 & .3.10	2020-01-01	Cargo vessels, keel-laid >= 2020-01-01.	Reference to Reg II-2/20.6.1.4, drainage and pumping arrangements, is included for the special hazards associated with fixed pressure water-spraying fire-extinguishing systems. Also some editorial changes.
SOLAS	II-2/20-1.2.1			The paragraph is updated as a consequence of the new definition of vehicle carrier as per II-2/3.56.
SOLAS	Appendix	2020-01-01	All cargo vessels.	In the Record of Equipment (Form P, Form E and Form C) in part 5, item 3.1 is updated to include "multi-system shipborne radionavigation receiver".
IGF Code	11.3.2			The requirement for A-0 class divisions for bridge windows has been removed to harmonize with SOLAS.
LSA Code	6.1.1.5 and 6.1.1.6	2020-01-01	All cargo vessels, HSC/ DSC vessels.	Winch structural components are included in structural members for which the min. factor of safety of 4.5 shall be applied.
SOLAS	Appendix	2020-01-01	All cargo vessels. Record of equipment for Cargo ship safety radio (Form R) and for Cargo ship safety (Form C)	The forms are amended to refer to recognized mobile satellite service ship earth station instead of Inmarsat ship earth station.
IMDG Code		2020-01-01	All cargo vessels, HSC/ DSC vessels. Ships carrying dangerous goods.	Amendments 39-18 include new provisions regarding IMO type 9 tank, a set of new abbreviations for segregation groups and special provisions for carriage of lithium batteries & of vehicles powered by flammable liquid or gas.
2008 IS Code	Part A, Ch.2	2020-01-01	Cargo vessels, keel-laid >= 2020-01-01.	The footnote to existing title of Ch. 2 is deleted. By this, the reference to the stability criteria in the non-mandatory part B that by implication made them mandatory, is removed.
MARPOL	Annex VI, Reg.14	2020-03-01	All cargo vessels, HSC/DSC vessels. Not applicable to ships with scrubbers.	Fuel oil used or carried for use on board a ship shall not exceed a sulphur limit of 0,50% m/m. The supplement to the IAPP certificate is updated accordingly.

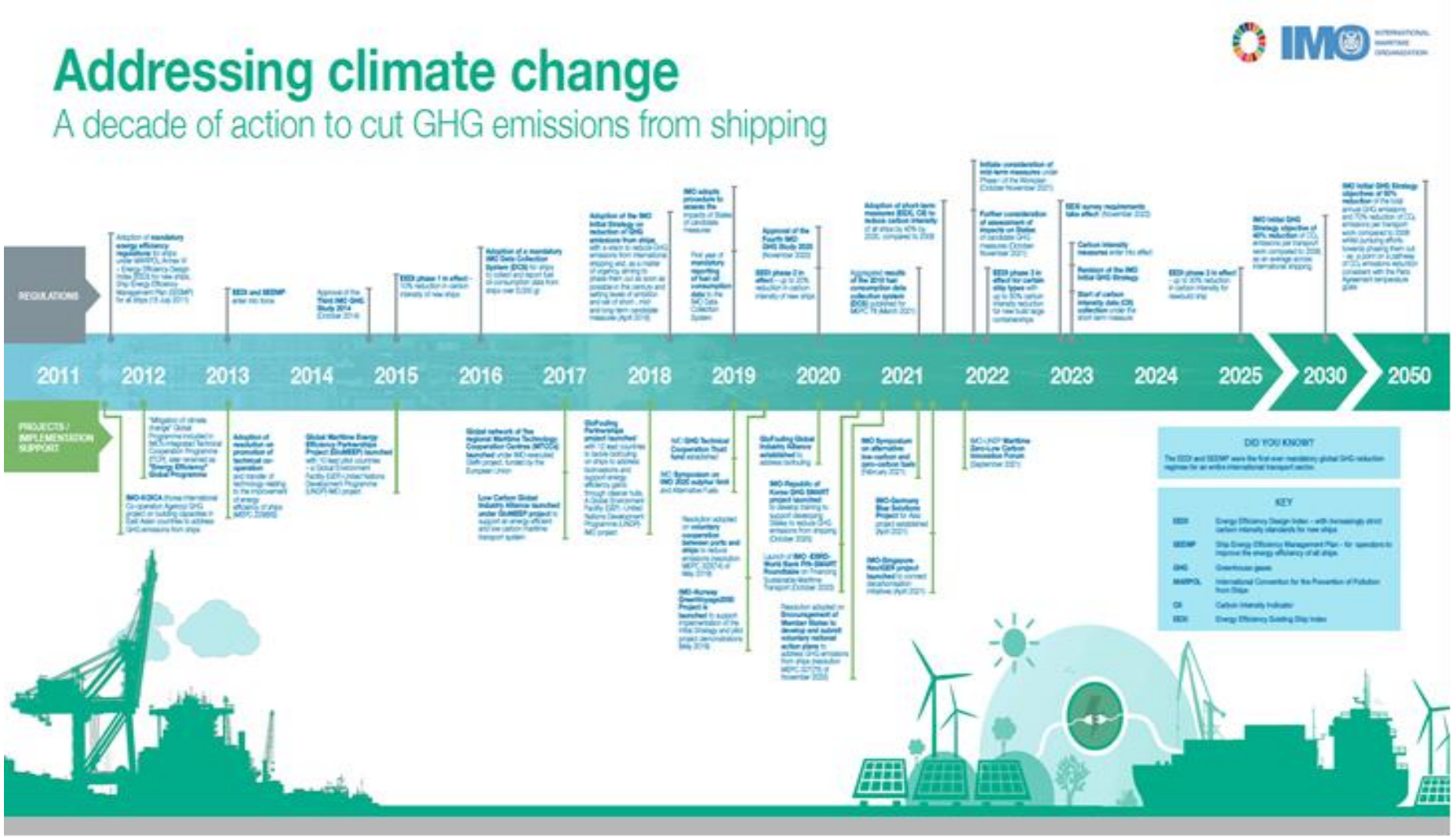
IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
MARPOL	Annex VI, Ch. 4/ Reg. 22A (new reg.) & Appendix IX (new)	2020-03-31	All cargo vessels, HSC/DSC vessels, GT >= 5000.	Final date of the first fuel consumption report to be submitted for verification. Data as specified in Appendix IX.
MARPOL	Annex VI, Ch.2/ Reg.6 & Appendix X (new)	2020-05-01	All cargo vessels, HSC/DSC vessels, GT >= 5000.	Final date of the first issuance of the Statement of Compliance after the annual report is verified and submitted to Administration. Validity date to be 31 May the next year.
MARPOL	Annex VI Reg. 12 MEPC.176(58)	2020-10-01	All ships	MARPOL Annex VI- ODS, Hydro chlorofluorocarbon (HCFC) Refrigerants: Reg. 12 states that installations which contain hydro chlorofluorocarbons shall be prohibited: 1. On ships constructed on or after 1/1/2020 or 2. In case of ships constructed before 1/1/2020 which have a contractual date of the equipment to the ship on or after 1/1/2020, or in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1/1/2020. It does not apply to permanently sealed equipment where there are no refrigerant charging connections or removable components containing ODS.
MARPOL	Annex I, II, IV and V	2020-10-01	All cargo vessels, HSC/ DSC vessels.	Electronic Record Books (eRB) as an alternative method to hard copy record books approved by the Administration as per Guidelines, Res. MEPC.312(74) is accepted. This applies to the MARPOL record books.
NOx Technical Code 2008	Reg. 1.3	2020-10-01	All cargo vessels, HSC/DSC vessels, GT >= 400.	Electronic Record Books (eRB) as an alternative method to hard copy books approved by the Administration as per Res. MEPC.312(74) is accepted. This applies to the Record Book of Engine Parameters (NOx Technical Code).
BWM	A-1 (new para.8) & D-3	2020-10-28 Installations on or after.	All cargo vessels. Also to floating platforms, FSUs and FPSOs. If with ballast water capacity and subject to Article 3 of the BWM Convention.	BWMS installed on or after 2020-10-28 shall be in compliance with BWMS Code (Res. MEPC.300(72)). An UI of Appendix I clarifies that the 'installed' means the contractual date of delivery of BWMS. In absence of this date, actual date of delivery may be used.
EU Ship Recycling Regulation	Article 5.2	2020-12-31 Implementation date.	All cargo vessels, HSC/ DSC vessels, GT >= 500. If non-EU/EEA flag.	Non-EU-flagged/ third-country flagged vessels calling at a port or anchorage of an EU member state shall have on board a Statement of Compliance on IHM by 31/12/2020.
EU Ship Recycling Regulation	Article 5.2	2020-12-31 Implementation date.	All cargo vessels, HSC/ DSC vessels, GT >= 500. If EU/ EEA flag.	Vessels in operation and flying the flag of an EU/ EEA member state shall have on board Certificate on IHM by 31 December 2020.
MARPOL ANNEX VI	MEPC.286(71):	2021-01-01		Amendments in MARPOL Annex VI: • Designation of the Baltic Sea and the North Sea Emission Control Areas for NOx Tier III control. • Each Tier limits the NOx emission under Reg. 13 to a specific value based on the rated engine speed.

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
				• Diesel engines installed on a ship constructed on or after 01/01/16 are subject to IMO Tier III in the designated area. • Tier III certified engines with a power output of more than 130kW, to be installed on vessels constructed on or after 1 January 2021. • The boundaries of Baltic Sea and North Sea ECAs are given in Reg. 1.11.2 of MARPOL Annex I and Reg. 1.14.6 of MARPOL Annex V respectively
IMSBC Code	June 2019	2021-01-01 Implementation date.	All cargo vessels, GT >= 500.	Amendments providing updated info on the shipment of certain types of solid bulk cargoes. Consequential amendments to MSC.1/Circ.1395/Rev.3 on 'Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system is effective' where approved accordingly.
ISM Code		First annual verification of DOC after 2021-01-01	All cargo vessels, HSC/ DSC vessels.	The new Res. 428(98) encourages Administrations to ensure that cyber risks are appropriately addressed in safety management systems.
MARPOL ANNEX VI Fuel Oil Sampling Points	MEPC.324(75) amended	2022-04-01	Ships of 400gt and above	Operators should arrange for in-use FO sampling points to be installed, or designated (as per section 2 of Annex to MEPC.1/Circ. 864/Rev.1) and ensure the arrangement is described in either a piping diagram or other relevant documents and made available for survey. Key amendments in MEPC.324(75) include the following: • Three types of fuel oil samples now defined in MARPOL – 'In-use sample', 'Onboard sample' and 'MARPOL delivered sample' – used to check for compliance with sulphur limits. • Ships to have designated sampling points for taking representative samples of fuel oil in use, i.e. 'In-use samples' (regs. 14.10 to .13). • New procedures for in-use and onboard fuel oil sampling (reg. 14.8 and .9). • Procedures for verification/analysis of in-use samples and onboard samples (Appendix VI, Part 2). • Amended procedures for verification/analysis of MARPOL delivered samples (Appendix VI, Part 1).
MARPOL ANNEX VI (Regulation 2, 14, and Appendix VI)	MEPC.75	2022-04-01	New ships and existing ships	Following amendments to be done in MARPOL Annex VI: • MARPOL Annex VI reg. 2; new definition on low flashpoint fuel for which sampling points will be exempted. • MARPOL Annex VI Reg. 14; Requirements on sampling points. This applies to both new ships (constructed after entry into force) existing ships (first renewal survey 12 months or later, after entry in to force). • IAPP cert. supplement; New checkboxes for indicating the presence of sampling points to be added.

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
MARPOL ANNEX VI (related to analysis of Sulphur content)	MEPC.75	2022-04-01		Following changes to be done in MARPOL Annex VI: • Draft new paragraphs 8 and 9 are added for 'In-use and onboard fuel oil sampling and testing'. • The verification procedure part 2 is to be followed in the new Verification procedures of Appendix VI of MARPOL Annex VI. • For the test results, 95% confidence will be allowed (limit X +0.59R) and the acceptable sulphur limits are extended to 0.11% and 0.53% for 0.10% and 0.50% respectively. • The laboratory is to be accredited to ISO17025:2017.
BWM Convention	MEPC.75	2022-06-01 (expected)		Amendments to Int. Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention), concerning commissioning testing of BWMS and the form of Int. Ballast Water Management Certificate. The major revision points are specified below: • Local ambient water to be used for testing regardless of the organism concentrations in the water. • Representative samples should be analyzed for the two size classes of organisms, namely ≥ 50 µm, and ≥ 10 µm to < 50 µm, as specified in the D-2 standard, using indicative analysis methods. Analysis for microbes is not required.
SOLAS VII IMDG Code	MSC.477(102)	2022-06-01	All ships	Res. MSC.477(102) provides a consolidated text of IMDG Code. In addition to periodic review of carriage requirements for new and existing substances, the amendments also introduce a new handling code for medical waste and other updated guidance.
IMDGC		2022-06-01 (expected)	All cargo ships	Following amendments to be done in IMDGC: • Amendments to IMDG Code (amendment 40-20) related to segregation requirements for alcoholates • Segregation in relation to liquid organic substances • Classification and transport of carbon, following incidents involving the spontaneous ignition of charcoal • Classification of UN portable tanks for multimodal transport; and provisions for labels
AFS Convention **(**Control of AFS containing Cybutryne)		2022-10-01 (expected)		Following amendments to be done: • AFS containing cybutryne shall not be applied or reapplied to ships on or after 1 January 2023 (assuming entry into force is delayed from 3/4/2022 to 30/10/ 2022) • AFS containing cybutryne shall be removed or covered with a sealer coat no later than 1 January 2028

IN FORCE & FORTHCOMING REGULATIONS				
Convention/ Code	**Regulation**	**Date of entry into force**	**Applicable to**	**Subject**
				• Shipowners and ship managers should expect to be required by Administrations to apply for a survey for the issuances of an International AFS Certificate no later than 1 January 2025 (assuming entry into force is delayed from 3 April 2022 to 30 October 2022)
SOLAS	II-1/25, II-1/25-1 and XII/12	2024-January-01	Water level detectors fitted on all ships subject to SOLAS reg. II-1/25, II-1/25-1 and XII/12	Water level detectors on Ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12


Timetable of IMO action to reduce GHG emissions from ships
1997
Resolution on "CO_2 emissions from ships" establishes IMO mandate on GHG emission control
2003
Resolution on "IMO Policies and Practices related to the Reduction of Greenhouse Gas Emissions from Ships"
2015
EEDI phase 1: 10% reduction in carbon intensity of the ship
2018
Resolution on the **Initial IMO Strategy on reduction of GHG emissions from ships**
2023
Complete short-term measures and revise the Initial Strategy
2023-2030
Mid-term measures to reduce carbon intensity of the fleet by at least 40%
2050
At least 50% reduction of total annual GHG emissions (requires approximately 85% CO_2 reduction per ship)
As soon as possible in this century:
Zero GHG emissions
2013
New regulatory tools to improve the energy efficiency of international ships:
• Mandatory design requirements (**EEDI**) for new ships, which set increasingly strict carbon intensity standards
• Mandatory Ship Energy Efficiency Management Plan (**SEEMP**) for operators to improve the energy efficiency of all ships
2016
Mandatory IMO **Data collection system**: Ships of 5,000 gross tonnage and above (~85% of emissions from international shipping) are required to collect fuel oil consumption data for annual reporting to IMO, from 1st January 2019
2019
Adoption of a procedure to **assess the impacts on States** of candidate measures.
Strengthening of the EEDI requirements for some ship types
Resolution on ports and shipping cooperation
Establishment of a GHG Technical cooperation Trust Fund within IMO
2020
EEDI phase 2: up to 20% reduction in carbon intensity of the ship
2025
EEDI phase 3: up to 30% reduction in carbon intensity of the ship. Note: early entry into effect (2022) for several ship types with up to 50% carbon intensity reduction for largest containerships
2030-2050
Long-term measures to reduce carbon intensity of the fleet by at least 70%


Addressing climate change
A decade of action to cut GHG emissions from shipping
IMO
REGULATIONS
PROJECTS / IMPLEMENTATION SUPPORT
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2030
2050
DID YOU KNOW?
KEY