

MARPOL Annex VI

Notice to ship owners, managers, Masters, Approved Nautical Inspectors, Recognised Organisations and surveyors

This Notice supersedes BMA Information Bulletin No.75

1. Purpose

- 1.1. This Notice outlines the requirements of Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL Annex VI).
- 1.2. Amendments to MARPOL Annex VI are scheduled to enter into force on 01 November 2022. Any references to Articles, Regulations and Interpretations in this Notice are references to the November 2022 version of MARPOL Annex VI, as amended, unless stated otherwise. Where regulation numbers have changed, the previous regulation number is shown in the footnotes.
- 1.3. For ease of use, provisions relating to Regulation 14, addressing sulphur oxides (SOx) emissions and fuel oil sampling and Regulation 18, addressing fuel oil availability and quality) are summarised in Marine Notice 62.
- 1.4. The provisions of Regulation 27(formerly Regulation 22A, as stated in [MEPC.1/Circ.897](https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.1-Circ.897.pdf) – [Cross reference tables for amendments to MARPOL Annex VI](https://www.bahamasmaritime.com/wp-content/uploads/2021/10/MN063-Fuel-Consumption-Data-and-Recording-v1.0.pdf)¹) of MARPOL Annex VI, in respect of fuel consumption data collection and reporting, are addressed separately in Marine Notice 63, as are the requirements for Ship Energy Efficiency Management Plan (SEEMP) Part III².

2. Application

- 2.1. MARPOL Annex VI applies to all ships, except where expressly provided for in Annex VI.
- 2.2. In general, all Bahamian ships of 400 gross tonnage and above, engaged on international voyages, shall be surveyed and certificated in accordance with Regulation

¹ <https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.1-Circ.897.pdf>

² <https://www.bahamasmaritime.com/wp-content/uploads/2021/10/MN063-Fuel-Consumption-Data-and-Recording-v1.0.pdf>

5 and 6 of MARPOL Annex VI by the Recognised Organisation responsible for issuing the statutory certification.

3. Exceptions and Exemptions (Regulation 3)

- 3.1. The provisions of MARPOL Annex VI do not apply to:
- i. any emission necessary for the purpose of securing the safety of a ship or saving life at sea; or
 - ii. any emission resulting from damage to a ship or its equipment:
 - provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the emission for the purpose of preventing or minimizing the emission; and
 - except if the owner or the master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result.
- 3.2. Any emission described in 3.1 above shall be promptly notified to the Bahamas Maritime Authority (BMA) Investigation Department via email (casualty@bahamasmaritime.com) and the details recorded in the Official Log Book.
- 3.3. Based on the provisions of Regulation 3.2 of MARPOL Annex VI and recognising the necessity to allow development and promulgation of new technology, the BMA will, in cooperation with other Administrations as appropriate, consider applications for exemption from specific provisions of Annex VI and issue a permit for a ship to conduct trials for the development of ship emission reduction and control technologies and engine design programmes, including engine control systems. Such applications, if accepted by the BMA, shall be provided only to the minimum number of ships necessary and for the maximum periods specified in Regulation 3.2.
- 3.4. Emissions directly arising from the exploration, exploitation and associated offshore processing of seabed mineral resources are exempt from the provisions of MARPOL Annex VI.
- 3.5. The BMA may exempt unmanned non-self-propelled (UNSP) barges from the survey and certification requirements of MARPOL Annex VI by means of an International Air Pollution Prevention Exemption Certificate for Unmanned Non-self-propelled (UNSP) Barges³ for a period not exceeding five years.
- 3.6. Owners of UNSP barges may apply for exemption from the survey and certification requirements of MARPOL Annex VI, where specific conditions have been met.

³ Refer to MEPC.1/Circ.892 *Guidelines for exemption of unmanned non-self-propelled (UNSP) barges from the survey and certification requirements under the MARPOL Convention.*

- 3.7. Owners of UNSP barges registered with the Bahamas may apply for one or more temporary exemptions from the survey and certification requirements under MARPOL Annex VI. Said exemptions will be issued subject to the provisions outlined in section 3 of MEPC.1/Circ.892 and with validity of not more than 5 years.
- 3.8. For the purpose of maintaining a unified and streamlined certification and survey procedure, the BMA recommends that the IAPP Exemption Certificate for UNSP Barges is aligned with the 5-yearly cycle of the existing statutory certificates.
- 3.9. Applications for permanent exemptions shall be made to the BMA, as per Marine Notice 5.

4. Equivalent (Regulation 4)

- 4.1. Regulation 4 of Annex VI allows the Administration to approve the use of alternative compliance methods being at least as effective in terms of emission reductions as that required by Annex VI, including the provisions set out in Regulations 13 and 14.
- 4.2. Such methods may include use of SOx emission reduction system (exhaust gas scrubbing, de-sulphuring of fuel or others), NOx emission reduction apparatus (if not installed as part of the engine) or any other technology that is verifiable and enforceable to limit:
 - i. nitrogen oxides (NOx) emissions to a level equivalent to that described in Regulation 13 of Annex VI; or
 - ii. SOx emissions to a level equivalent to that described in Regulation 14 of Annex VI.
- 4.3. The equivalent arrangements to the specific provisions of Annex VI and alternative compliance methods will be considered on a case-by-case basis in accordance with the provisions of Regulation 4.
- 4.4. All applications for acceptance of equivalents and alternative compliance methods are to be forwarded to the BMA, as per Marine Notice 5.
- 4.5. Upon satisfactory review of the application, the BMA will notify the International Maritime Organization (IMO) of the acceptance of the equivalent/alternative compliance by making an entry in the IMO Global Integrated Shipping Information System (GISIS)⁴.

⁴ <https://gisis.imo.org> (Registration required)

5. Surveys and certification (Regulations 5 to 9)

5.1. *International Air Pollution Prevention (IAPP) Certificate*

5.1.1. Ships of 400 gross tonnage and above, including every fixed and floating drilling rig and other platforms, shall undergo surveys in accordance with Regulation 5.1 and be issued with an IAPP Certificate.

5.2. *International Energy Efficiency (IEE) Certificate*

5.2.1. Ships of 400 gross tonnage and above to which Chapter 4 of MARPOL Annex VI applies, as defined in Regulation 19, shall undergo surveys in accordance with Regulation 5.4 and be issued with an IEE Certificate.

5.2.2. Ships which are not required to keep a Ship Energy Efficiency Management Plan (SEEMP) do not require an IEE Certificate.

5.3. *Ship Type Designation*

5.3.1. The ship type on the IEE Certificate shall refer to the designation assigned to a particular ship on the basis of the provisions of Regulation 2.2 of MARPOL Annex VI. The BMA considers that the ship type stated on the IEEC should usually replicate the ship type designated at the stage of design and construction on which the Safety Certificates of the ship are based.

5.3.2. In situations where, owing to operational necessity, an existing ship may be required to change the ship type on the IEE Certificate, the BMA will consider such requests where supported by the Recognised Organisation that issues the IAPP Certificate of the ship, provided that the ship type on which the Safety Certificates of the ship are based have been amended.

5.3.3. The Owners of a ship certificated to the ISM Code should be aware that where a change of ship type is requested, the ship's Safety Management Certificate (SMC) and the Company Document of Compliance (DOC), including associated safety management documents and procedures⁵, may require to be amended.

5.3.4. Where an existing ship without a Safety Certificate requires a change of ship type on the IEE Certificate, an application shall be submitted to the BMA via the Recognised Organisation that issued the IAPP Certificate of the ship.

⁵ See BMA MN046 [MN046-ISM-Code-v1.2.pdf \(bahamasmaritime.com\)](#)

6. Port State Control, violations and enforcement (Regulations 10 & 11)

- 6.1. The following shall be made available upon request to duly authorised officials, in addition to the statutory certificates:
- i. Bunker delivery notes and samples including collection and analysis records, any issued Fuel Oil Non-Availability Reports (FONAR) as required by Regulation 18 and related communications - see Marine Notice 62;
 - ii. Technical File for each applicable engine, inclusive of record book of engine parameters, including Engine International Air Pollution Prevention Certificate (EIAPPC);
 - iii. Documented procedures and records to ensure compliance while in a Sulphur Emissions Control Area (SECA);
 - iv. Documented procedure for oily garbage screening and segregation;
 - v. MARPOL VI Record Book, see Information Notice 11;
 - vi. Control and Monitoring system data where EGCS and/or SCR is installed on board;
 - vii. An Exemption Certificate and a Permit where the BMA has agreed to allow the ship to conduct EGCS on-board commissioning and trials, under the provisions of Regulation 3.2.
- 6.2. The Master or crew should be able to demonstrate familiarity with essential procedures regarding the operation of air pollution prevention equipment (e.g. maintenance of diesel engines, fuel oil change over procedures, garbage screening procedures and operation of EGCS/SCR if installed).
- 6.3. In exceptional circumstances when original records/documents or associated samples are removed by a duly authorised officer, the Master or crew should document the fact in the Official Log Book and appropriate section of the Bahamas Annex VI Record Book (where carried) and obtain contact information of the port or coastal State Authority that took such action.

7. Ozone depleting substances (Regulation 12)

- 7.1. Regulation 12 does not apply to permanently sealed equipment where there are no refrigerant charging connections or potentially removable components containing ozone depleting substances.
- 7.2. Deliberate emission of ozone-depleting substances is prohibited. This includes emissions occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment.
- 7.3. Deliberate emissions do not include minimal releases associated with the recapture or recycling of an ozone depleting substance.

- 7.4. Companies⁶ should be aware that emissions arising from leaks of an ozone depleting substance, whether or not deliberate, may be regulated by other Parties to MARPOL Annex VI or be subject to additional control and reporting requirements under national and/or regional environmental legislation within the jurisdiction in which the ship may be operating.
- 7.5. Ozone depleting substances, and equipment containing such substances, shall be delivered to appropriate reception facilities when removed from a ship.
- 7.6. Each ship to which Annex VI applies shall maintain a list of equipment containing ozone depleting substances.
- 7.7. Records of shipboard operations related to ozone depleting substances shall be kept. The BMA has issued a MARPOL Annex VI Record Book that can be utilised to maintain the required records. Please refer to BMA Information Notice 11.
- 7.8. The BMA has issued guidance on the use of hydrochlorofluorocarbon (HCFC) refrigerants – please refer to BMA Marine Notice 64.
- 7.9. Further details of controlled ozone depleting substances, as outlined in Regulation 2.1.25 of MARPOL Annex VI and a summary of control measures defined under UNEP Montreal Protocol can be found in the official guidelines to the Montreal Protocol⁷.

8. Nitrogen oxides (NOx) Emissions (Regulation 13)

- 8.1. The Regulations regarding NOx controls apply to any diesel engine with a power output of more than 130kW that has been installed on a ship constructed on or after 01 January 2000 or, if installed on a ship constructed earlier, has undergone a major conversion on or after 01 January 2000.
- 8.2. “Major conversion”, for the purposes of Regulation 13, means a modification on or after 01 January 2000 of a marine diesel engine which has not already been certified to Tier I, II or III standards where:
- i. the engine is replaced by a marine diesel engine or an additional marine diesel engine is installed; or
 - ii. any substantial modification, as defined in the revised NOx Technical Code 2008, is made to the engine; or

⁶ “The Company” is the owner or any other organisation or person, such as the manager, or the bareboat charterer, who has assumed responsibility for the operation of the ship

⁷ <https://ozone.unep.org/treaties/montreal-protocol/montreal-protocol-substances-deplete-ozone-layer>

- iii. the maximum continuous rating of the engine is increased by more than 10% compared to the maximum continuous rating of the original certification of the engine.
- 8.3. When a major conversion involves replacement of a marine diesel engine with a non-identical engine, or installation of an additional engine, the new engine shall comply with the NOx standards of Regulation 13.4 (Tier II) or 13.5.1 (Tier III) applicable at the time of replacement.
- 8.4. Where a replacement engine is fitted that is unable to demonstrate compliance with the Tier III standards outlined in Regulation 13.5.1, such engine shall meet the standards applicable to Tier II. Any additional engine however shall demonstrate compliance with Tier III emission limits.
- 8.5. More details addressing non-identical replacement engines compliance with Tier III limits can be found in IMO Resolution MEPC.230(65).
- 8.6. Regulation 13 does not apply to diesel engines intended to be used solely in the case of emergency, including lifeboat engines. However, lifeboats used as tenders must comply with Regulation 13.
- 8.7. Emissions from fixed or floating platforms and drilling rig engines that are solely dedicated to the exploration, exploitation and associated offshore processing of seabed mineral resources are exempted from the regulations regarding NOx controls. However, any emissions from engines that jointly supply power to exploration and processing machinery and also the platform domestic load are NOT exempt.
- 8.8. Each engine on board a Bahamian ship subject to Annex VI is required to have an associated Engine Technical File. The Technical file shall remain on board the ship for as long as the engine remains on board and shall be available for inspection by duly authorised officers.
- 8.9. The Technical File shall include an on-board NOx verification procedure, the parent engine's emission test report and the Engine International Air Pollution Prevention Certificate (EIAPPC).
- 8.10. Boilers and gas turbines are not covered under the NOx controls regulations.

8.11. Marine diesel engines subject to Regulation 13 shall comply with the following NOx emission standards:

Ship constructed on or after:	Nitrogen Oxide Emissions (calculated as total weighted emission of NO ₂) g/kWh		
	Rated engine speed less than 130 rpm	Rated engine speed between 130 and 1999 rpm	Rated engine speed 2000 rpm and over
1 January 2000	17.0	45*n ^(-0.2)	9.8
1 January 2011	14.4	44*n ^(-0.2)	7.7
1 January 2016	3.4	9*n ^(-0.2)	2.0

- i. The requirements of Tier III standard shall apply **only** when:
 - a. the ship is constructed on or after 01 January 2016 and is operating in the North American Emission Control Area (ECA) or the United States Caribbean Sea Emission Control Area; and
 - b. the ship is constructed on or after 01 January 2021 and is operating in the Baltic Sea Emission Control Area or North Sea Emission Control Area; and
 - c. the ship is operating in a new NOx Emission Control Area (ECA), other than those indicated above, and is constructed on or after the date of a date of designation of such an emission control area, or a later date, as may be specified in the designation of such NOx Tier III emission control area;
- ii. When the ship is operating outside of a NOx Emission Control Area the Tier II standards apply.

8.12. The Tier III emission standards shall not apply to:

- i. a marine diesel engine installed on a ship with a length (L), as defined in regulation 1.19 of MARPOL Annex I, of less than 24 metres when it has been specifically designed, and is used solely, for recreational purposes; or
- ii. a marine diesel engine installed on a ship with a combined nameplate diesel engine propulsion power of less than 750 kW if it is demonstrated, to the satisfaction of the Administration, that the ship cannot comply with the standards set forth in regulation 13.5.1.1 of MARPOL Annex VI because of design or construction limitations of the ship; or
- iii. a marine diesel engine installed on a ship constructed prior to 1 January 2021 of less than 500 gross tonnage, with a length (L), as defined in regulation 1.19 of MARPOL Annex I, of 24 metres or over when it has been specifically designed, and is used solely for, recreational (non-commercial) purposes.

8.13. Marine diesel engines with a power output of more than 5,000 kW and a per cylinder displacement at or above 90 litres, installed on or after 1 January 1990 but before 1 January 2000, shall comply with the Tier I limits shown above, provided that an Approved Method for that engine is commercially available and has been certified by an Administration of a Party to Annex VI and notified to IMO.

- 8.14. The supplement to the IAPP Certificate shall indicate that an approved method:
- i. has been applied pursuant to paragraph 7.1.1 of Regulation 13; or
 - ii. the engine has been certified pursuant to paragraph 7.1.2 of Regulation 13; or
 - iii. an Approved Method is not yet commercially available as described in paragraph 7.2 of Regulation 13, or
 - iv. is not available.

9. Sulphur oxides (Sox) Emissions (Regulation 14)

- 9.1. Please refer to Marine Notice 62.

10. Volatile organic compounds VOC (Regulation 15)

- 10.1. These provisions apply only to tankers in designated ports and terminals where emission of VOC is regulated.
- 10.2. Compliance with VOC emission control requirements may be achieved through the following:
- i. fitting of Vapour Emission Collection Systems (VECS) in accordance with IMO MSC/Circ.585; and
 - ii. obtaining certification and class notation from Recognised Organisation referred to in paragraph 2.2.
- 10.3. All tankers carrying crude oil shall have an approved VOC management plan implemented onboard. Companies should refer to MEPC.185(59), MEPC.1/Circ.680 and MEPC.1/Circ.719 when developing the VOC management plan. VOC management plans are to be approved by a Recognised Organisation on behalf of the BMA.
- 10.4. The provisions of Regulation 15 also apply to gas carriers where cargo loading and containment systems are designed to allow retention of non-methane VOC on board for safe return to shore facilities.
- 10.5. A list of current designated ports may be viewed on IMO GISIS.

11. Shipboard incineration (Regulation 16)

- 11.1. This Regulation applies to all incinerators installed on or after 01 January 2000.
- i. Incinerators installed on or after 01 January 2000 with capacity up to 1500 kW shall be type approved in accordance with MEPC.76(40), as amended;

- ii. Incinerators with capacity over 1500kW and up to 4000 kW shall be type approved in accordance with MEPC.244(66).
- 11.2. Existing incinerators installed before 01 January 2000 are acceptable to the BMA, provided that they are type approved in accordance with IMO MEPC.59(33) or MEPC.76(40), as amended. Existing incinerators that are not type approved may still be used, however they may not be used for the incineration of polyvinyl chlorides (PVCs).
- 11.3. Shipboard incineration of the following substances is prohibited:
- i. Residues of cargoes subject to MARPOL Annex I, II or III or related contaminated packing materials;
 - ii. Polychlorinated biphenyls (PCBs);
 - iii. Garbage, as defined by MARPOL Annex V, containing more than traces of heavy metals;
 - iv. Refined petroleum products containing halogen compounds;
 - v. Sewage sludge and sludge oil which is not generated on the ship; and
 - vi. Exhaust gas cleaning system residues.
- 11.4. Shipboard incineration of sewage sludge and sludge oil generated during normal operations of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries.
- 11.5. Operation of incinerators within ECAs must be agreed with individual port States and affected coastal States in all cases. Certain Coastal States apply similar limitation to use of incinerators in waters under their jurisdiction. It is the responsibility of the Master to verify whether use of incinerator is permitted in the area where a ship is operating.

12. Reception facilities (Regulation 17)

- 12.1. Reports on alleged unavailability or inadequacy of reception facilities provided under Regulation 17 should be sent to the Maritime Affairs department of the BMA via email (ma@bahamasmaritime.com) and copied to the Inspections & Surveys Department (tech@bahamasmaritime.com).
- 12.2. The BMA will report such allegations to IMO, in accordance with Regulation 17.4.

13. Fuel Oil Availability and Quality (Regulation 18)

- 13.1. Please refer to Marine Notice 62.

14. Carbon Intensity Requirements (Regulation 19 to 29)

- 14.1. Regulation 19 outlines the application of Chapter 4 of Annex VI Regulations on Energy Efficiency for Ships (i.e. Regulations 19 to 29).
- 14.2. Chapter 4 applies to all ships of 400 gross tonnage and above, with the exception of:
- i. ships not propelled by mechanical means;
 - ii. offshore platforms, including FPSOs and FSUs and drilling rigs, regardless of their propulsion;
 - iii. ships operating exclusively in Bahamian waters, provided that such ships are constructed and act in a manner consistent with Chapter 4 so far as is reasonable and practicable.
- 14.3. Regulations 22, 23, 24 & 25 shall not apply to ships which have non-conventional propulsion, except:
- i. Regulations 22 and 24 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, delivered on or after 1 September 2019, as defined in regulation 2.2.1 of MARPOL Annex VI;
 - ii. Regulations 23 and 25 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion.
- 14.4. Regulations 22, 23, 24, 25 and 28 shall not apply to category A ships as defined in the Polar Code.
- 14.5. Subject to BMA agreement, the provisions of Regulations 22 and 24 may be waived for ships of 400 gross tonnage and above, except ships:
- i. for which the building contract is placed on or after 1 January 2017; or
 - ii. 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
 - iii. the delivery of which is on or after 1 July 2019; or
 - iv. in cases of a major conversion of a new or existing ship, as defined in regulation 2.24 of Annex VI, on or after 1 January 2017, and in which regulations 5.4.2 and 5.4.3 of Annex VI apply.

15. Attained EEDI (Regulation 22⁸)

- 15.1. EEDI means Energy Efficiency Design Index and represents the equivalent amount of carbon dioxide that a ship as a whole emits, in relation to the amount of cargo carried per mile sailed.
- 15.2. The attained EEDI is a calculated value that represents the actual amount of emissions. The attained EEDI should be lower than the required EEDI prescribed in Regulation 24 of Annex VI
- 15.3. The attained EEDI shall be calculated for every new ship, new ship which has undergone a major conversion and new or existing ships which have undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship, which fall under one or more categories outlined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.20, 2.2.22, and 2.2.26 to 2.2.29.
- 15.4. The attained EEDI shall be specific to each ship and shall indicate the estimated performance of the ship in terms of energy efficiency, and be accompanied by the EEDI Technical File that contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation.
- 15.5. The attained EEDI shall be verified, based on the EEDI technical file, by the Recognised Organisation which classes the ship, using *Guidelines on the Method of Calculation of the Attained EEDI for New Ships* published by the IMO as Resolution MEPC.308(73).
- 15.6. Starting from 01 April 2022 for all ships to which requirements of Regulations 22 and 24 apply, the attained EEDI and required EEDI (Regulation 24) shall be reported to the IMO as follows:
- i. for ships constructed on or after 1 April 2022 within 7 months from the date of the IEE Certificate Initial Survey, or
 - ii. for ships constructed prior to 1 April 2022 by 1 November 2022.

16. Attained EEXI (Regulation 23)

- 16.1. EEXI means Energy Efficiency Existing Ship Index and is a measure of a ship's energy efficiency, expressed in grams of carbon dioxide per amount of cargo carried per mile sailed.

⁸ Formerly Regulation 20

- 16.2. The attained EEXI shall be calculated⁹ for every ship falling under one or more categories outlined in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29, including ships which have undergone a major conversion. , using Guidelines on the Method of Calculation of the Attained EEXI published by the IMO as Resolution MEPC.333(76).
- 16.3. Where a ship may be identified as falling under more than one category listed above, the more stringent criteria in calculations shall apply. The process of calculation and the necessary information to produce the EEXI calculation shall be addressed in the ship specific EEXI Technical File.
- 16.4. For ships subject to Regulation 22, the verified attained EEDI may be taken as the attained EEXI if the value of the attained EEDI is equal to or less than that of the required EEXI (Regulation 25). In this case, the attained EEXI shall be verified based on the EEDI Technical File and the provisions contained within the EEDI Technical File may be used in place of an EEXI Technical File .
- 16.5. For existing ships the attained EEXI shall be verified and the International Energy Efficiency Certificate shall be re-issued at the first IAPP annual, intermediate or renewal survey, or the initial survey (in the case of an existing ship, falling under major conversion, that is so extensive that the ship is considered by the Administration as a newly constructed ship), whichever is the first, on or after 01 January 2023 to reflect the application of Regulations 23 and 25. The provisions of Resolution MEPC.334(76) apply.
- 16.6. For the purpose of application of the requirements of Regulations 23 and 25 of MARPOL VI the BMA defines a **Verifier** as being any Bahamas Recognised Organisation.
- 16.7. The EEXI Technical File shall be reviewed and accepted by the Verifier. The Verifier may issue a statement affirming the completion of an EEXI Technical File review, however such a statement does not form part of the survey requirements of Regulation 5 of MARPOL Annex VI.

17. Required EEDI (Regulation 24¹⁰)

- 17.1. The Required EEDI is the maximum value of attained EEDI allowed for the specific ship type and size.
- 17.2. For each:
- i. new ship,
 - ii. new ship which has undergone a major conversion, and

⁹ Guidelines on the Method of Calculation of the Attained EEXI published by the IMO as Resolution MEPC.333(76)

¹⁰ formerly Regulation 21

- iii. new or existing ship which has undergone a major conversion that is so extensive that the ship is regarded by the Administration as a newly constructed ship

which falls into one of the categories in regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 and to which Chapter 4 of MARPOL Annex VI is applicable, the attained EEDI shall be as follows:

$$\text{Attained EEDI} \leq \text{Required EEDI} = \left(1 - \frac{x}{100}\right) \cdot \text{Reference line value}$$

where X is the reduction factor specified in table 1 of Regulation 24 for the required EEDI compared to the EEDI reference line.

- 17.3. For each new and existing ship that has undergone a major conversion which is so extensive that the ship is regarded by the Administration as a newly constructed ship, the attained EEDI shall be calculated and meet the requirement of paragraph 17.2 with the reduction factor applicable corresponding to the ship type and size of the converted ship at the date of the contract of the conversion, or in the absence of a contract, the commencement date of the conversion.

18. Required EEXI (Regulation 25)

- 18.1. The Required EEXI shall be calculated for every ship, including ships that have undergone a major conversion, to which the provisions of Chapter 4 apply and which fall under one of the categories in Regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29.
- 18.2. Where in order to achieve the Required EEXI the propulsion power of an existing ship may need to be limited, such power limitation arrangements shall be effected on the basis of the provisions outlined in Resolution MEPC.335(76) and taking into account the recommendations provided in Paragraph 6 of IACS Recommendation 172.¹¹
- 18.3. The BMA does not have any specific requirements or limitations on the exact arrangements or construction of a power limitation system or device. In any case where a power limitation system or device have been installed on board those shall be clearly referenced in the EEXI Technical File.
- 18.4. In case of a ship with a power limitation system or device installed, each occasion when the propulsion power reserve has been accessed, for whatever reason, shall be reviewed at the next IAPP Certificate survey taking into account the provision of Regulation 3.1.1 and 3.1.2 of MARPOL Annex VI.

¹¹ <https://iacs.org.uk/download/14308>

19. Ship Energy Efficiency Management Plan (SEEMP) (Regulation 26¹²)

- 19.1. Each ship of 400 gross tonnage and above to which the provisions of Chapter 4 apply shall keep a ship specific SEEMP on board, prepared taking into account Resolution MEPC.282(70).
- 19.2. The SEEMP shall be provided on board before issuance of the IEE Certificate.
- 19.3. SEEMP Part I does not require verification or approval by the Administration. This may form part of the ship's safety management system.
- 19.4. See paragraph 3.3 of Marine Notice 63 addressing SEEMP Part II.
- 19.5. The SEEMP shall be prepared in the working language or languages of the ship. Where the working language is not English, a copy of the SEEMP shall also be available in English.
- 19.6. **SEEMP Part III**
- 19.6.1. For ships of 5,000 gross tonnage and above, which fall under one or more of the categories in Regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29¹³ the SEEMP shall include:
- i. a description of the methodology that will be used to calculate the ship's attained annual operational CII required by Regulation 28 and the processes that will be used to report this value to the ship's Administration;
 - ii. the required annual operational CII, as specified in regulation 28, for the next three years;
 - iii. an implementation plan documenting how the required annual operational CII will be achieved during the next three years; and
 - iv. a procedure for self-evaluation and improvement.
- 19.6.2. Necessary amendments to the existing SEEMP shall be completed and verified by the Reporting Organisation/Verifier on or before 01 January 2023. On successful verification of the amended SEEMP, the Reporting Organisation/Verifier is to issue a Confirmation of Compliance¹⁴ to the ship, in accordance with Regulation 5.4.6 of MARPOL Annex VI.

¹² formerly Regulation 22

¹³ Where a ship may be identified as falling to more than one category listed above the more stringent criteria shall be taken

¹⁴ See MEPC.1/Circ.876: https://wwwcdn.imo.org/localresources/en/OurWork/Documents/MEPC_1-Circ-876_Sample%20Format%20For%20The%20Confirmation%20Of%20Compliance.pdf

- 19.6.3. For a ship rated as **D** for three consecutive years, or when rated as **E** in accordance with Regulation 28, the SEEMP shall be reviewed and amended and a corrective action plan to achieve the required annual operational CII should be included therein.

20. Collection and reporting of ship fuel oil consumption data (Regulation 27¹⁵)

- 20.1. Please refer to Marine Notice 63.

21. Operational carbon intensity (Regulation 28)

21.1. Attained annual operational carbon intensity indicator (CII)

- 21.1.1. Starting from 01 January 2024, each ship of 5,000 gross tonnage and above which falls into one or more of the categories specified in Regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29¹⁶ shall calculate the attained annual operational CII over a 12-month period from 1 January to 31 December for the preceding calendar year, using the data collected in accordance with regulation 27.
- 21.1.2. The attained annual operational CII for the preceding year shall be reported by the Reporting Organisation/Verifier by 01 April each year.
- 21.1.3. Notwithstanding the above, in the event of a change of flag of a ship completed after 1 January 2023, the ship shall, after the end of the calendar year in which the transfer takes place, calculate and report the attained annual operational CII for the full 12-month period from 1 January to 31 December in the calendar year during which the transfer took place for verification by the Recognised Organisation.
- 21.1.4. It should be noted that nothing in Regulation 28 relieves any ship of its reporting obligations under Regulation 27 or Regulation 28.

21.2. Required annual operational carbon intensity indicator (CII)

- 21.2.1. For each ship of 5,000 gross tonnage and above which falls into one or more of the categories specified in Regulations 2.2.5, 2.2.7, 2.2.9, 2.2.11, 2.2.14 to 2.2.16, 2.2.22, and 2.2.26 to 2.2.29 a Required Annual Operational Carbon Intensity Index (required CII) shall be calculated as outlined in Regulation 28.4.

¹⁵ Formerly Regulation 22A

¹⁶ Where a ship may be identified as falling to more than one category listed above the more stringent criteria shall be taken

21.3. **Operational carbon intensity rating**

21.3.1. The attained annual operational CII shall be verified by the Reporting Organisation/Verifier against the required annual operational CII to determine operational carbon intensity rating **A, B, C, D** or **E**, indicating the ship's preceding year performance level, as outlined in regulation 28.6.

21.4. **Corrective actions and incentives**

21.4.1. A ship rated as **D** for three consecutive years, or when rated as **E**, shall develop a plan of corrective actions to achieve the required annual operational CII.

21.4.2. The SEEMP shall be reviewed to include the above plan of corrective actions accordingly. The revised SEEMP shall be submitted to the Reporting Organisation/Verifier for verification, not later than 1 month after reporting the attained annual operational CII. Implementation of corrective actions shall commence immediately following the verification by the Reporting Organisation/Verifier.

22. **Document Preparation**

22.1. With regards to the amended SEEMP Part III, as per the provisions of Regulation 26.3.1 of MARPOL Annex VI, the EEXI Technical File as per the requirements of MEPC.334(76) and EEXI Onboard Management Manual, where applicable, as referenced in MEPC.335(76), the BMA fully recognises the constraints being faced by the industry in relation to introduction of the new energy efficiency requirements.

22.2. Therefore, in the opinion of the BMA, the owners of a ship may exercise their best judgement to allocate the preparation of the required amendments to the existing SEEMP and composing EEXI Technical File and EEXI Onboard Management Manual to a competent entity of their choice.

22.3. No formal approval for the above-mentioned documents is required, except for the SEEMP Confirmation of Compliance as per Regulation 5.4.6 of MARPOL Annex VI.

22.4. The new SEEMP Part III amendments, EEXI Technical File and EEXI Onboard Management Manual shall be verified and confirmed acceptable to the Reporting Organisation/Verifier.

23. **Queries**

23.1. Any queries relating to MARPOL Annex VI should be addressed to the ship's Classification Society in the first instance. Alternatively, please contact tech@bahamamaritime.com or any BMA office.

