

CLAUSE-BY-CLAUSE ANALYSIS OF MARPOL ANNEX VI



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Norwegian Ministry
of Climate and Environment

Clause-by-Clause analysis of MARPOL Annex VI

**2021 Revised MARPOL Annex VI, as set out in Resolution MEPC.328(76)
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Norwegian Ministry
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General

The Protocol of 1997 to amend the International Convention for the Prevention of Pollution from Ships, 1973, (MARPOL) as modified by the Protocol of 1978 relating thereto, added Annex VI (MARPOL Annex VI) containing regulations for the prevention of air pollution from ships. The 1997 Protocol is open for ratification or accession only to those States which have ratified MARPOL.

A Party to the 1997 Protocol is obliged to give full effect to the provisions of MARPOL Annex VI. This also implies transposing all the relevant provisions of MARPOL Annex VI into national legislation. When doing so, particular consideration should be given to ensuring that provisions in national legislation identify and provide for the necessary powers to those requiring legal authority to implement the requirements, for example, Minister of State, national Administration for shipping, environment agency, port authorities, ship inspectors, etc. Additionally, the national legislation needs to identify all those that have obligations under the regulations including, for example, the ship, the ship's Administration, local suppliers of fuel oil, port authorities, etc.

Transposition of MARPOL Annex VI into national legislation

Failure to transpose the international requirements into national legislation makes it much more likely that a ship flying the flag of a Party to MARPOL Annex VI will be detained in a foreign port for non-compliance, leading to expensive delays and inconvenience for ships trading internationally, and potentially to reputational damage and the Party's loss of status as a maritime nation.

The process of transposition of a treaty into the domestic system varies from State to State. According to the monist approach, a treaty may, without any domestic legislation, become part of the domestic law once it has been concluded, has entered into force for that State and has been published in an official gazette. Under the dualist approach, the rights and obligations created by international treaties have no effect in domestic law unless legislation is in force to give effect to them. Thus, the treaty provisions only have status once they become domestic law.

Most IMO treaties, including MARPOL Annex VI, are not self-executing, since they impose numerous obligations on administrations within a State Party. Consequently, it is critical that States Parties to MARPOL Annex VI, when drafting national legislation, pay attention to the clauses provided for in the treaty which require them to take action, regardless of whether they have a monist or dualist legal system.

It is important for drafters of the national legislation to understand that the provisions contained in MARPOL Annex VI will impose obligations on several actors: the ship (and its crew), the Administration (as defined in the MARPOL Convention as the Government of the State under whose authority the ship is operating), the State as Party to the treaty, the port authorities and the port operators, fuel oil suppliers, marine diesel engine manufacturers, etc. The drafters need to review each obligation contained in MARPOL Annex VI and consider the actors to whom it will apply: the State, the ship/shipowner, the port authority, the industry, etc. to ensure that the international requirements are given full and complete effect in the national legislation.

Consequently, there may be more than one piece of national legislation required to give effect to MARPOL Annex VI, depending, inter alia, on the specific obligations on the State Party, as flag, port and coastal State. In many countries, the main primary legislation implementing MARPOL Annex VI is the legislation on merchant shipping (for example, Merchant Shipping Act or Navigation Act). But it may also be the legislation on protection of the seas or prevention of pollution from ships (for example, Marine Pollution Prevention Act). In this context, the IMO document on the

Non-exhaustive list of obligations under instruments relevant to the IMO Instrument Implementation Code, issued as an Assembly resolution every two years¹, is a very useful guidance on the implementation and enforcement of IMO instruments, in particular including the identification of auditable areas relevant to the IMO Member State Audit Scheme.

There may also be several secondary pieces of legislation needed (for example in the form of regulations, marine order), made under the primary legislation. This is the reason why the clause-by-clause analysis in this document refers to the "relevant" legislation. In addition to the legislation itself, the implementation of a treaty like MARPOL Annex VI also involves the issuance of policies, guidances and guidelines to complement the implementation, compliance and enforcement of its provisions, and, for example, when the text of MARPOL Annex VI states that something is done "to the satisfaction of the Administration". These documents are usually the product of consideration of the guidelines and guidances issued by IMO, but also the consultation with the sectors likely to be affected by the provisions, including industry stakeholders from the shipping, oil refining, logistics, ports and technology sectors. This exercise should ideally be done before a State becomes a Party to the treaty.

Finally, the national legislation needs to provide for enforcement of the national provisions as well as offences for failures to comply with the national provisions and adequate penalties as appropriate.

Use of incorporation by reference and ambulatory references in national legislation

Many IMO conventions, including MARPOL Annex VI, are highly technical. They are also often complemented by codes imposing even more technical requirements on the ship, its equipment, etc.

One way of implementing these technical requirements in the national legislation is by making a cross-reference to the international instrument, also called "incorporation by reference" in certain countries. This means that, instead of repeating the international requirement, the national provision may state that the ship must for example comply with regulation 14 of MARPOL Annex VI. This way, there will no longer be disparity between national and international requirements and shipowners, shipbuilders and other industry professionals/interested parties will only have to refer to one set of legal text in relation to the international text, instead of having to refer also to a national version of those provisions.

MARPOL Annex VI is regularly amended and updated in line with technical and environmental changes/advancements. These changes need to be incorporated in the national legislation to ensure that it reflects the current international requirements.

The absence of appropriate national legislation implementing the requirements of IMO conventions or the lack of incorporation of amendments in the national legislation will be identified through the mandatory IMO Member State Audit Scheme which entered into force at the start of 2016. A poor audit performance may increase the possibility of the Party suffering reputational damage and its ships being considered a higher risk under port State control (PSC) regime. As PSC inspections are increasingly risk based, meaning that ships are identified for inspection on a risk basis, failure to enact legislation may increase the frequency of inspections for ships flagged by the Party when entering foreign ports and hence increase cost to industry.

¹ See resolution A. 1157(32)

Several States, particularly in common law jurisdictions, have identified that implementing regular changes to international treaties is time consuming and resource intensive. In consequence, the regulatory framework is not up to date with lengthy delays between the entry into force of the amendments to international conventions globally and their transposition into national law. These delays lead to legal uncertainty and disparity between national and international legislation. Furthermore, internationally trading ships registered by a Party to MARPOL Annex VI are at risk of not being fully compliant with international requirements and so potentially subject to enforcement action by other Parties to MARPOL Annex VI.

The use of ambulatory referencing provides a mechanism that enables future amendments to some technical requirements to be incorporated automatically into the national legislation without the need to amend the domestic legislation. An ambulatory reference enables a reference in a national legislation to a specific provision in an international treaty to be interpreted as a reference to that specific provision as modified from time to time (and not simply as in the version of the instrument that exists at the time the national legislation is drafted). This means the reference will always be to the latest international requirements.

When considering the transposition of the provisions of MARPOL Annex VI into national legislation, a Party or prospective Party may wish therefore to consider the inclusion of provisions to permit ambulatory referencing, in accordance with the required domestic legislative processes. In some countries, such provisions can be made through secondary legislation but would require, if not already extant, primary legislation to be amended to provide the necessary powers to enact ambulatory provisions.

CLAUSE-BY-CLAUSE ANALYSIS OF MARPOL ANNEX VI

Chapter 1 – General

Regulation 1 – Application

This regulation defines the scope of MARPOL Annex VI which, as with the MARPOL Convention, generally extends to all ships operating in the marine environment except in specific circumstances as set out in several regulations of MARPOL Annex VI.

- The national legislation needs to be clear on the scope of application of MARPOL Annex VI. Thus, this provision should be incorporated in the relevant national legislation.

Regulation 2 – Definitions

The key definitions that are used throughout MARPOL Annex VI are set out in this regulation.

- Subject to the needs and requirements of the maritime sector of the country, the definitions set out in this provision should be incorporated in the relevant national legislation.
- Where MARPOL Annex VI is incorporated in legislation addressing air emissions in general, and not in the legislation incorporating the other annexes of MARPOL, it is important that the definitions in Article 2 of MARPOL also be incorporated, in so far as they apply to MARPOL Annex VI.
- For those enacting the provisions a specific policy focus should be on reflecting, as appropriate, the use and definition of the term “emission” set out in regulation 2 of MARPOL Annex VI, as opposed to the term “discharge” defined in Article 2 of MARPOL, and that the definition for “emission” refers to “substances” as opposed to the term “harmful substance” as set out in Article 2 of MARPOL.

Regulation 3 – Exceptions and Exemptions

Regulation 3.1

The regulation sets out the scope of application of MARPOL Annex VI related to "emissions" and describes which emissions are not regulated by MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

Regulation 3.2

This regulation covers the granting of exemptions for ships participating in trials of emission reduction and control technologies research.

- If the State is not a flag State or involved in research and development related to ship emissions, it may not be necessary to provide for this regulation in the national legislation.

- Otherwise, this provision should be incorporated in the relevant national legislation, which should set out the conditions under which the exemptions will be granted. The legislation should explain how such exemptions are to be granted, who can grant them, what would be the consequences of not complying with it, and the assessment of the conditions should be attached to those exemptions.

Regulation 3.3.1

This regulation covers certain exemptions applicable to seabed mineral activities.

- Subject to the needs and requirements of the maritime sector of the country, this provision should be incorporated in the relevant national legislation.

Regulation 3.3.2

This regulation addresses the use of hydrocarbons that are produced and used on site as fuel.

- Subject to the needs and requirements of the sector of the country concerned by this provision, this provision should be incorporated in the relevant national legislation (implementing MARPOL, or addressing seabed mineral activities among others).

Regulation 3.4

This regulation addresses unmanned non-self-propelled barges.

- Subject to the needs and requirements of the maritime sector of the country, this provision should be incorporated in the relevant national legislation.

Regulation 4 – Equivalent

This regulation deals with the approval of alternative equipment, fuel oils or alternative means of compliance where they achieve emissions reductions which are at least as effective as that required under MARPOL Annex VI.

- This provision allows the use of equipment on a ship such as Exhaust Gas Cleaning Systems (e.g. equipment called “scrubbers”) to comply with the provisions of regulation 14 of MARPOL Annex VI for example, and should be incorporated in the relevant national legislation.

Chapter 2 – Survey, certification and means of control

Regulation 5 – Surveys

Regulation 5.1

Ships of 400 gross tonnage and above, and fixed and floating drilling rigs and other platforms are required to be surveyed and issued with certificates in accordance with the regulation to ensure compliance with the requirements of chapter 3 of MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

- The State may already have existing national legislation dealing with surveys and certifications of ships under the MARPOL Convention. This legislation may also incorporate the requirements of this regulation.

Regulation 5.2

MARPOL Annex VI applies to all ships, but surveys and certificates are not required for ships below 400 gross tonnage. However, this regulation allows the Administration to establish appropriate measures for such ships.

- Subject to the needs and requirements of the maritime sector of the country, this provision should be incorporated in the relevant national legislation.

Regulation 5.3

Parties to MARPOL Annex VI may delegate the conduct of surveys to which MARPOL Annex VI applies to Recognised Organisations and should apply the IMO Guidelines for the authorisation of organisations acting on behalf of the Administration.

- This provision should be incorporated in the relevant national legislation.
- The State may already have existing national legislation dealing with authorization of recognized organizations under the MARPOL Convention or other IMO conventions. This legislation may also incorporate the requirements of this regulation.

Regulation 5.4

This regulation requires that ships to which Chapter 4 of MARPOL Annex VI apply should comply with the surveys set out in this regulation.

- This provision should be incorporated in the relevant national legislation.

Regulation 6 – Issue or endorsement of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

This regulation provides the legal basis for the issuance of the International Air Pollution Prevention (IAPP) Certificate and the International Energy Efficiency (IEE) Certificate. The certificates are issued after the surveys required under regulation 5 of MARPOL Annex VI have been successfully completed.

The regulation also provides the legal basis for the issuance of a Statement of Compliance related to fuel oil consumption and operational carbon intensity rating to ships to which regulations 27 and 28 of MARPOL Annex VI apply.

- This provision should be incorporated in the relevant national legislation.

Regulation 7 – Issue of a Certificate by another Party

The regulation allows a Party to MARPOL Annex VI to survey and issue IAPP and/or IEE certificates to the ship of another Party provided the ship complies with the requirements of MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

Regulation 8 – Form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

The regulation establishes the form of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating.

- This provision should be incorporated in the relevant national legislation. Some countries include the forms as a schedule to the legislation.

Regulation 9 – Duration and validity of Certificates and Statements of Compliance related to fuel oil consumption reporting and operational carbon intensity rating

The regulation establishes the duration of the International Air Pollution Prevention Certificate which shall not exceed five (5) years and the International Energy Efficiency Certificate which shall be valid for the life of the ship, save where it ceases to be valid in accordance with the provisions of MARPOL Annex VI. The regulation establishes the duration of the Statement of Compliance, which shall be valid for the calendar year (from 1 January to 31 December) in which it is issued and for the first five months of the following calendar year.

- This provision should be incorporated in the relevant national legislation.

Regulation 10 – Port State control on operational requirements

This regulation allows a Party to MARPOL Annex VI to inspect foreign ships which are in its ports or an offshore terminal under its jurisdiction to ensure compliance with MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

Regulation 11 – Detection of violations and enforcement

This regulation provides additional powers for the exercise of port State control over ships in the ports or offshore terminals of a Party to MARPOL Annex VI and for cooperation between Parties to MARPOL Annex VI in the detection, investigation and reporting of alleged contraventions of the provisions of MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation; however, the obligation to cooperate with other Parties to MARPOL Annex VI need not be placed in legislation but implemented through memoranda of cooperation or similar instruments.

Chapter 3 – Requirements for control of emissions from ships

Regulation 12 – Ozone-depleting substances

This regulation prohibits the deliberate emissions of ozone-depleting substances as well as installations containing ozone-depleting substances on ships depending on the date of construction. Ozone-depleting substances are controlled internationally under the Montreal Protocol and the Party to MARPOL Annex VI may already have enacted legislation related to these controlled substances into national law. However, it would need to be established the extent to which the national provisions apply to ships operating in national waters, trading internationally and the powers to inspect and detain ships when those ships are in the port of a Party to MARPOL Annex VI.

The regulation also requires ships with systems or equipment containing ozone-depleting substances and which are required to have an IAPP Certificate to carry and maintain an ozone-depleting substances record book in accordance with this regulation.

- This provision should be incorporated in the relevant national legislation. A Party to MARPOL Annex VI may also decide to regulate emissions arising from leaks of an ozone-depleting substance as provided for in regulation 12.2 of MARPOL Annex VI.

Regulation 13 – Nitrogen oxides (NO_x)

This regulation contains the control requirements in relation to NO_x which apply to installed marine diesel engines. The regulation provides for three different levels of control, known as Tiers, which apply to a ship based on its construction date, with the limits on emission of nitrogen oxides under each Tier being determined by rated engine speed (rpm). The regulation also lists the Emission Control Areas (ECA) for NO_x where stricter limits (Tier III NO_x limits) are required.

- This provision should be incorporated in the relevant national legislation. The regulation also provides that, under certain circumstances, relaxation from the NO_x certification requirements for certain specified domestic ships may be accepted. These instances should be addressed within the relevant national legislation.
- The relevant national legislation should make mandatory the application of the NO_x Technical Code 2008 to survey and certification of applicable marine diesel engines. The NO_x Technical Code also needs to be made mandatory in the relevant national legislation. Several countries incorporate it by reference and publish it in associated guidance referenced in the legislation.

Regulation 14 – Sulphur oxides (SO_x) and particulate matter

This regulation contains the control requirements in relation to sulphur oxides and particulate matter emissions which apply to fuel oil used or carried for use on board a ship. The regulation lists the ECA where a stricter limit value on the sulphur content of fuel oil (0.10% m/m) is required than the general limit (0.50% m/m) in the regulation. The provisions also include requirements for ships to have written fuel oil changeover procedures and for changeovers to be recorded in a logbook or record book.

Provisions include requirements for in-use and onboard sampling of fuel oil that is either being used by the ship or carried onboard for subsequent use. Provisions are also included for testing and verification of in-use and onboard samples drawn using the procedures set out in appendix VI of

MARPOL Annex VI. Parties undertaking port State control of foreign ships should enact all these provisions.

Regulation 14.8 identifies the requirement to use the verification procedure set out in appendix VI of MARPOL Annex VI for analysing in-use or onboard fuel oil samples. Reference to this verification procedure should be made in the national legislation as this is the international standard for fuel oil testing for ships trading internationally.

- This provision should be incorporated in the relevant national legislation, except for regulation 14.2 which relates to functions to be undertaken by IMO and therefore not applicable as national requirements.

Regulation 15 – Volatile organic compounds (VOCs)

This regulation is primarily applicable to tankers (in limited cases, also to gas carriers) and sets out the requirements for the control of volatile organic compounds (VOCs) on tankers when they are in certain ports and terminals. Tankers to which the regulation applies and which carry crude oil are required to have on board and implement a VOC management plan approved by the Administration.

A Party may choose to apply controls only to certain ports or terminals under its jurisdiction. Where a Party designates ports or terminals within its jurisdiction as ones where VOC emissions are to be regulated, it shall ensure that vapour emission control systems are provided at those ports and terminals and that the systems are approved by the Party, taking account the relevant standards developed by IMO.

- This provision should be incorporated in the relevant national legislation, except for regulation 15.4 which relates to functions to be undertaken by IMO and therefore not applicable as national requirements.
- Reporting obligations to the IMO under regulation 15.2 is an obligation on the State. Parties need to decide where and how best to reflect this obligation nationally, which is also a requirement under several other IMO conventions (many countries have specific administrative procedures in place in this regard).
- Of note, regulation 15.3 requires that the approved vapour emission control systems be operated in a manner so as to avoid undue delay to ships. The relevant national legislation should place an obligation on the operator of the port or terminal to comply with the regulations with appropriate penalties for non-compliance and the payment of compensation where undue delay is caused to a ship.

Regulation 16 – Shipboard incineration

This regulation applies to shipboard incineration and sets out certain prohibitions in relation to the substances that can be incinerated and the circumstances where incineration should not be undertaken in ports, harbours and estuaries.

- This provision should be incorporated in the relevant national legislation.
- Regulation 16.5 refers to other international instruments and to the development of alternative waste treatment process. It may therefore not be suitable as part of national

regulations applying to ships, but may have to be incorporated into other relevant national legislation.

- Regulation 16.6.2 provides that, under the circumstances given, exclusion from the requirements for incinerator certification may be allowed. This case should be addressed within the relevant national legislation.

Regulation 17 – Reception facilities

This regulation requires that the government of each Party undertakes to ensure the provision of reception facilities for equipment and substances when removed from ships. This does not necessarily mean the government must provide the facility; a port authority or terminal operator could be required to provide the facilities.

- This provision should be incorporated in the relevant national legislation. Parties need to decide where and how best to reflect this obligation nationally.

Regulation 18 – Fuel oil availability and quality

This regulation places an obligation on Parties to regulate fuel oil suppliers within their jurisdiction through the competent authorities of the State.

Regulation 18.1 requires Parties to take “all reasonable steps” to promote the availability of compliant fuel oil and to inform IMO of such availability. However, subject to the needs and requirements of the maritime sector of the country, this need not be addressed in the national legislation itself and may be provided in administrative procedures.

Importantly, to enable enforcement action against foreign registered ships entering ports and/or territorial waters of the Party, obligations are also placed on Parties to take action against ships which do not use compliant fuel oil, while fuel oil delivered to and used on board ships should meet the standards laid down in regulation 18.3 of MARPOL Annex VI. The obligation to report instances of non-compliant fuel to other Parties and to take action when reports are received is also set out in the regulation.

Ships subject to regulations 5 and 6 of MARPOL Annex VI are also required to record the details of the fuel oil delivered to and used on board in a Bunker Delivery Note (BDN) including the sulphur content of the fuel oil. The BDN is to be provided to the ship by the local fuel oil supplier (regulation 18.9 of MARPOL Annex VI) and that the BDN contains at least the information specified in appendix V to MARPOL Annex VI. The BDN has to be retained onboard for three years after the fuel was delivered onboard.

Regulation 18.8.2 identifies the requirement to use the verification procedure set out in appendix VI to MARPOL Annex VI for analysing fuel oil samples delivered to the ship. Reference to this verification procedure set out in appendix VI should be made in the relevant national legislation as this is the international standard for fuel oil testing for ships trading internationally.

Regulation 18.9 also requires the Party to ensure that it designates an appropriate authority or agency to carry out the registration and control of local suppliers of fuel oil.

- This provision should be incorporated in the relevant national legislation, except for regulation 18.1 which deals with the promotion of the availability of fuel. The Party is

required to identify the authorities that will regulate fuel oil suppliers. This authority need not be the maritime Administration (i.e. under whose authority the ship is operating); it could be an entity within the ministry responsible for energy which has general responsibility for the regulation of fuel oil quality.

- The provisions of appendix V to MARPOL Annex VI are applicable when developing national legislation as it sets out the information to be included in the BDN.
- In relation to the implementation of regulation 18.9 in the relevant national legislation, a Party may decide that it is not necessary to incorporate the obligation in merchant shipping legislation, but rather through legislation addressing fuel oil quality control or through administrative procedures. The provisions should require the fuel oil supplier to provide a BDN to a ship being supplied with fuel oil.

Chapter 4 – Regulations on the carbon intensity of international shipping

Regulation 19 – Application

The regulations in this chapter apply to all ships of 400 gross tonnage and above unless where otherwise indicated.

The requirements do not apply to ships solely engaged in voyages in national waters, however, each Party to MARPOL Annex VI should ensure, by the adoption of appropriate measures, that such ships are constructed and act in a manner consistent with the requirements of chapter 4, so far as is reasonable and practicable. The requirements do not apply to ships not propelled by mechanical means, platforms and drilling rigs, regardless of their propulsion.

Some ships with non-conventional propulsion (that is ships which have diesel-electric propulsion, turbine propulsion or hybrid propulsion systems) are excluded from the requirements of regulations 22 to 25 of MARPOL Annex VI. See regulation 19.3 of MARPOL Annex VI for ships exempted from certain provisions under chapter 4 only.

There are also limited exceptions for which the Administration may waive the requirement to comply with the Attained and Required Energy Efficiency Design Index (regulations 22 and 24). This is not applicable if the ship's building contract is placed or the keel is laid (or similar stage of construction) on or after 1 July 2017 or if the delivery is on or after 1 July 2019. Major conversion of a new or existing ship is treated in a similar manner. Details of any waivers are required to be communicated by the ship's flag State Administration to IMO for circulation to the Parties to MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

Regulation 20 – Goal

This regulation provides the goal of the chapter, which is to reduce the carbon intensity of international shipping, working towards the levels of ambition set out in the *Initial IMO Strategy on reduction of GHG emissions from ships*.

- This provision is a general statement of intent or goal of the chapter. International shipping needs to comply with the requirements of the chapter to attain the goal. The national

legislation will have to reflect the requirements of the chapter. However, this specific provision may not need to be incorporated in the national legislation.

Regulation 21 – Functional requirements

A ship to which this chapter applies shall comply, as applicable, with the technical carbon intensity requirements and the operational carbon intensity requirements set out in the regulations.

- This provision should be incorporated in the relevant national legislation.

Regulation 22 – Attained Energy Efficiency Design Index (attained EEDI)

The attained EEDI is to be calculated for each new ship and each new or existing ship which has undergone a major conversion (as defined in regulation 2) and is to be calculated taking into account the guidelines developed by the IMO.

- This provision should be incorporated in the relevant national legislation.

Regulation 23 – Attained Energy Efficiency Existing Ship Index (attained EEXI)

The attained EEXI is to be calculated for each ship and each ship which has undergone a major conversion (as defined in regulation 2 of MARPOL Annex VI), and is to be calculated taking into account the guidelines developed by the IMO.

- This provision should be incorporated in the relevant national legislation.

Regulation 24 – Required EEDI

The regulation applies to each new ship and each new or existing ship which has undergone a major conversion (as defined in regulation 2 of MARPOL Annex VI), and establishes the method of determining the required EEDI.

- This provision should be incorporated in the relevant national legislation, except for regulation 24.6 of MARPOL Annex VI which places an obligation on the IMO.

Regulation 25 – Required EEXI

The regulation applies to each ship and each ship which has undergone a major conversion (as defined in regulation 2 of MARPOL Annex VI), and establishes the method of determining the required EEXI.

- This provision should be incorporated in the relevant national legislation, except for regulation 25.3 of MARPOL Annex VI which places an obligation on the IMO.

Regulation 26 – Ship Energy Efficiency Management Plan (SEEMP)

Both new and existing ships are required to keep on board a ship-specific Ship Energy Efficiency Management Plan (SEEMP). The SEEMP establishes a mechanism to improve energy efficiency using operational measures.

The SEEMP for ships of 5,000 gross tonnage and above shall include a description of the methodology that will be used to collect the data required by regulation 27.1 of MARPOL Annex VI and the processes that will be used to report the data. On or before 1 January 2023, it shall also include a description of the methodology that will be used to calculate the ship's attained annual operational carbon intensity indicator (CII), and the required annual operational CII, required by regulation 28 of MARPOL Annex VI.

- This provision should be incorporated in the relevant national legislation.

Regulation 27 – Collection and reporting of ship fuel oil consumption data

This regulation applies to each ship of 5,000 gross tonnage and above and places an obligation on the operator of the ship to collect data related to fuel oil consumption as specified in appendix IX to MARPOL Annex VI, for the calendar year 2019 and each subsequent calendar year or portion thereof, as appropriate, according to the methodology included in the SEEMP.

This data is required to be sent by the ship to its flag State Administration, which upon verification, will issue to the ship a Statement of Compliance related to fuel oil consumption reporting. The Party to MARPOL Annex VI is obligated to transfer to the IMO Ship Fuel Oil Consumption Database the reported data on fuel oil consumption supplied to it by its registered ships within a month of the issuance to the Statement of Compliance.

- This provision should be incorporated in the relevant national legislation, except for regulations 27.10 to 27.13 of MARPOL Annex VI which place obligations on the IMO.

Regulation 28 – Operational carbon intensity

This regulation applies to every ship of 5,000 gross tonnage and above and requires that each ship calculate the attained annual operational carbon intensity indicator (CII), after the end of calendar year 2023 and after the end of each following calendar year. The regulation also establishes the method of determining the required annual operational CII, and operational carbon intensity rating (A to E), taking into account the guidelines developed by the IMO².

Where a ship is found not to have achieved the required operational carbon intensity rating then it is required to develop a plan of corrective action within the ship's SEEMP, subject to verification, to achieve the required annual operational CII.

- This provision should be incorporated in the relevant national legislation, except for regulation 28.11 of MARPOL Annex VI which places an obligation on the IMO.

Regulation 29 – Promotion of technical cooperation and transfer of technology relating to the improvement of energy efficiency of ships

- This regulation places an obligation on Parties to MARPOL Annex VI to cooperate and as such need not be incorporated in the national legislation.

² Not yet developed as of the date of publication of this document.

Chapter 5 - Verification of compliance with the provisions of this Annex

Regulation 30 – Application

Regulation 31 – Verification of compliance

- These provisions place obligations on the Parties to MARPOL Annex VI and the IMO, and as such need not be incorporated in the national legislation.

Appendices

Appendix I – Form of International Air Pollution Prevention (IAPP) Certificate (regulation 8):

This provision should be incorporated in the relevant national legislation.

Appendix II – Test cycles and weighting factors (regulation 13):

This provision provides for obligations for the verification of compliance of marine diesel engines with the applicable NO_x limit in accordance with regulation 13 using the test procedure and calculation method as specified in the revised NO_x Technical Code 2008. These obligations should be incorporated in the relevant national legislation.

Appendix III – Criteria and procedures for the designation of emission control areas (regulations 13.6 and 14.3):

This provision need not be incorporated in the national legislation.

Appendix IV – Type approval and operating limits for shipboard incinerators (regulation 16):

This provision should be incorporated in the relevant national legislation.

Appendix V – Information to be included in the bunker delivery note (regulation 18.5):

This provision should be incorporated in the relevant national legislation.

Appendix VI – Verification procedures for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8):

This provision should be incorporated in the relevant national legislation.

Appendix VII – Emission control areas (regulations 13.6 and 14.3):

This provision should be incorporated in the relevant national legislation.

Appendix VIII – Form of International Energy Efficiency (IEE) Certificate (regulation 8.2):

This provision should be incorporated in the relevant national legislation.

Appendix IX – Information to be submitted to the IMO Ship Fuel Oil Consumption Database (regulation 27):

This provision should be incorporated in the relevant national legislation.

Appendix X – Form of Statement of Compliance – Fuel Oil Consumption Reporting and Operational Carbon Intensity rating (regulation 8.3):

This provision should be incorporated in the relevant national legislation.

Appendix XI – Form of Exemption Certificate for UNSP Barges (regulation 8.4):

Subject to the needs and requirements of the maritime sector of the country, this provision should be incorporated in the relevant national legislation.



MORE INFORMATION?

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