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Delegations will find attached document SWD(2023) 407 final.

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EUROPEAN
COMMISSION

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COMMISSION STAFF WORKING DOCUMENT

**Union submission to the 81st session of the International Maritime Organization's
Marine Environment Protection Committee for considerations on ships' GHG emissions
data quality and integrity as a basis for current and future IMO GHG regulatory
measures**

Union submission to the 81st session of the International Maritime Organization's Marine Environment Protection Committee for considerations on ships' GHG emissions data quality and integrity as a basis for current and future IMO GHG regulatory measures

PURPOSE

This Staff Working Document contains a draft Union submission to the 81st session of the International Maritime Organization's Marine Environment Protection Committee (MEPC 81). The IMO has indicatively scheduled MEPC 81 from 18 to 22 March 2024.

The draft submission points out the main stakes related to data quality, integrity and the verification process of ships' fuel consumption and GHG emissions data. It also underlines potential risks and vulnerabilities of the current system for further analysis and actions that could be investigated to address them. Finally, it proposes to review the suitability of the IMO Data Collection System for the implementation and enforcement of current and future regulatory GHG measures regarding data quality and integrity, focusing inter alia on the identification and assessment of risks and vulnerabilities before addressing them.

EU COMPETENCE

Regulation (EU) 2015/757¹ (EU MRV Regulation) establishes the legal framework for an EU system to monitor, report and verify (MRV) GHG emissions. The regulation aims to deliver robust and verifiable GHG emissions data and energy efficiency indicators, inform policy makers and stimulate the market uptake of energy efficient technologies and behaviours. It does so by addressing market barriers such as the lack of information. It entered into force on 1 July 2015.

The EU Climate Law² sets a binding Union climate target of a reduction of net greenhouse gas emissions—emissions after deduction of removals—by at least 55% by 2030 compared to 1990. It also includes the aim of climate neutrality by 2050 and an aspirational goal for net negative emissions after this time.

Based on the Commission's proposals of the *Fit for 55* package to reduce GHG emissions, the EU legislators adopted the following legal acts specifically targeting GHG emissions from the shipping sector:

- the revision of the EU Emission Trading System (ETS) Directive (EU) 2023/959³ to extend the EU ETS to the maritime transport sector to apply as of 1 January 2024, (together with the necessary amendments to the EU MRV Regulation,⁴ to revise monitoring and reporting rules, also through the revision of the relevant implementing and delegated acts).
- Regulation (EU) 2023/1805⁵ (FuelEU Maritime Regulation) focuses on the use of renewable and low-carbon fuels in the maritime sector and mandates the uptake thereof by ships calling at EU ports to apply as of 1 January 2025.

¹ Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC, OJ L 123, 19.5.2015, p. 55–76

² Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'); OJ L 243, 9.7.2021, p. 1–17

³ Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system, OJ L 130, 16.5.2023, p. 134–202

⁴ Regulation (EU) 2023/957 of the European Parliament and of the Council of 10 May 2023 amending Regulation (EU) 2015/757 in order to provide for the inclusion of maritime transport activities in the EU Emissions Trading System and for the monitoring, reporting and verification of emissions of additional greenhouse gases and emissions from additional ship types, OJ L 130, 16.5.2023, p. 105–114

⁵ Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC, OJ L 234, 22.9.2023, p. 48–100

Compliance with the new obligations stemming from the extension of the EU ETS to maritime transport and the FuelEU Maritime Regulation will build on the monitoring, reporting, and verification system established by the EU MRV Regulation.

These EU acts are in turn strongly linked with the IMO measures on GHG such as the IMO Data Collection System, the Energy Efficiency Existing Ship Index (EEXI), and the Carbon Intensity Indicator (CII) aiming to collect and publish information on the technical and operational energy efficiency of ships on a per-ship basis.

Any IMO measure on GHG matters, which will require the monitoring, verification and reporting of GHG emissions from shipping, could affect the EU MRV Regulation as well as the EU ETS Directive and the FuelEU Maritime Regulation. Therefore, the EU has exclusive competence for GHG emissions in shipping.

In light of all of the above, the present draft Union submission falls under EU exclusive competence, pursuant to article 3(2) TFEU⁶. This Staff Working Document is presented to establish an EU position on the matter and to transmit the document to the IMO prior to the required deadline of 12 January 2024.

⁶ An EU position under Article 218(9) TFEU is to be established in due time should the IMO Marine Environment Protection Committee eventually be called upon to adopt an act having legal effects as regards the subject matter of the said draft Union submission. The concept of '*acts having legal effects*' includes acts that have legal effects by virtue of the rules of international law governing the body in question. It also includes instruments that do not have a binding effect under international law, but that are '*capable of decisively influencing the content of the legislation adopted by the EU legislature*' (Case C-399/12 Germany v Council (OIV), ECLI:EU:C:2014:2258, paragraphs 61-64).

ENERGY EFFICIENCY OF SHIPS

Considerations on ships' GHG emissions data quality and integrity as a basis for current and future IMO GHG regulatory measures

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands (Kingdom of the), Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission, acting jointly in the interest of the European Union

SUMMARY

Executive summary: The revision of the IMO GHG short-term measures and the ongoing development of mid-term measures will require strong levels of quality and integrity of ships' fuel consumption and GHG emissions data. This document points out the main stakes related to data quality, integrity and the verification process. It also underlines potential risks and vulnerabilities of the current system for further analysis and actions that could be investigated to address them. Finally, it proposes to review the suitability of the IMO's Data Collection System (DCS) for the implementation and enforcement of current and future regulatory GHG measures regarding data quality and integrity, focusing inter alia on the identification and assessment of risks and vulnerabilities before addressing them.

Strategic direction, if applicable: 3

Output: 3.2

Action to be taken: Paragraph 19

Related documents:

Introduction

1 At the 80th Marine Environment Protection Committee (MEPC 80), the Committee reached an agreement on the mid-term measures to be developed and implemented in order to reduce greenhouse gas emissions from ships. Such measures shall consist of a combination of a technical element, in the form of a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity, and an economic element, on the basis of a maritime GHG pricing mechanism. To be effective, these measures will very likely have to be based upon a system of collection, verification and reporting of fuel consumption and GHG emissions data, such as the IMO's Data Collection System (DCS).

2 The DCS has been subject to recent developments. Following continued work from the GHG Working Group, MEPC 80 approved amendments on new types of data to be submitted (inclusion of the attained and required Carbon Intensity Indicator (CII) values, the CII rating and attained Energy Efficiency Design Index for existing ships (EEXI) in the required information to be submitted to the DCS). In addition, amendments were also approved on data granularity and on accessibility of data, in an effort to modernise the system and to make it more efficient as a basis for GHG emission reduction measures.

3 In parallel to the process of developing and implementing mid-term measures, the review of the short-term measures, in particular of the Carbon Intensity Index (CII), will take place under the auspices of the next MEPC meetings. The CII measure is based on fuel consumption and GHG emission data as reported under the DCS; therefore, its revision may be an opportunity for consideration of the accuracy, quality and verification of the available data.

4 The aim of this submission is to launch a reflection on the suitability of the current DCS, including regarding the verification approach, for both the short-term measures and future mid-term measures, and possible ways for improvement and adaptation that may be necessary in the context of the development of future mid-term measures. The arguments developed in this submission are without prejudice to ongoing negotiations, especially regarding the design and functioning of the mid-term measures. This is a general reflection applicable to any regulatory process involving data use.

Stakes regarding the quality and integrity of ships' GHG emissions data

5 The current DCS covers the on-board collection of information, verification by Flag States or Recognised Organisations performing this activity on their behalf, issuance of an annual Statement of compliance, reporting by means of a specific module in the IMO's "GISIS" platform, and then the management and use of the data by the IMO Secretariat and by the Parties acceding to them (e.g. for Flag States that want to analyse the data of their fleet). Future measures may require additional and more elaborate levels of data usage, in particular if this data is meant to constitute the basis of regulatory compliance with the requirements. The annual nature of the reporting might make the process more complex to control, as compliance can only be granted for past declarations.

6 *Figure 1* presented underneath is an illustration of the current multi-step process of collection and verification of data under the IMO DCS.

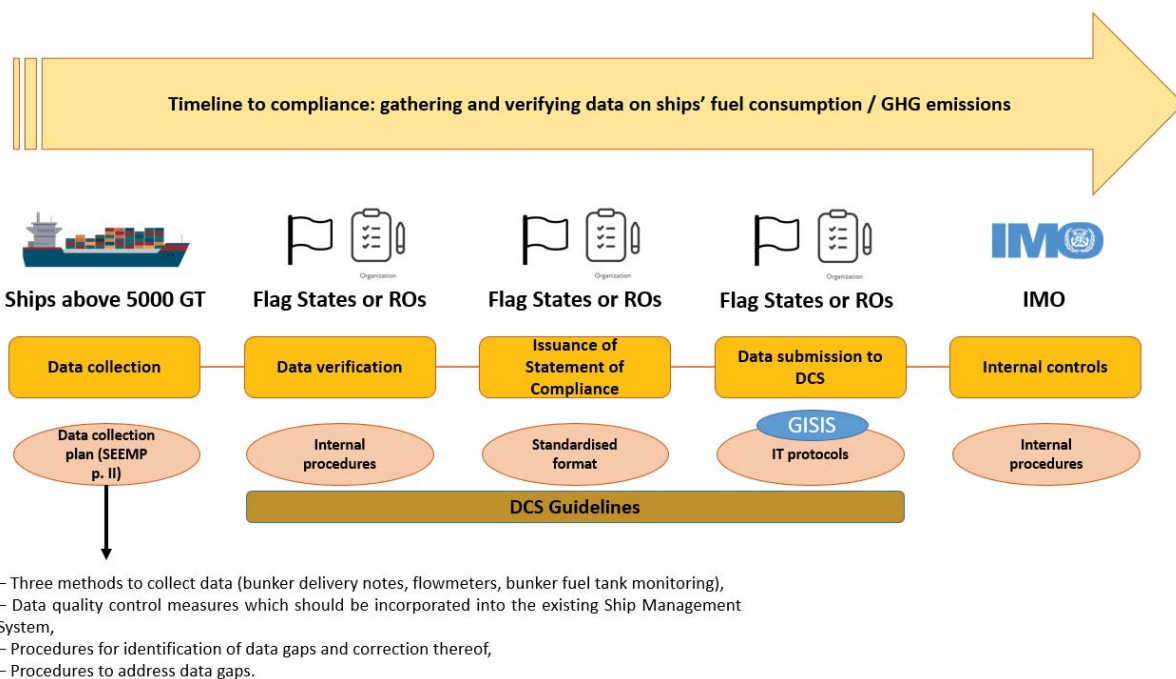


Figure 1

7 With the current and future implementation of GHG measures, the DCS is not only an information tool but also a compliance tool. This means that currently, data is used as basis for technical/regulatory compliance control (for the CII and the future goal-based marine fuel standard) and, in the future, it could be used as the basis for the calculation and verification of potential financial flows in the framework of the GHG pricing mechanism.

8 A robust, high quality and verifiable set of data is essential to ensure the environmental integrity of the relevant regulations as well as a level playing field across the world fleet, for all GHG measures relying on such data.

9 Any data collection system can have vulnerabilities, so it is essential to continuously improve the system by means of regular checks of its functioning and to implement procedures to secure data quality and prevent undesirable events, such as errors or fraudulent behaviour.

10 The co-sponsors believe that, like any other system relying on data to ensure compliance, the DCS, and generally the collection, verification and reporting process described above, is subject to risks. These risks can be both the current (related to the DCS as a compliance tool for measures currently implemented) and any future risks, considering the possible evolution of existing IMO regulations, future GHG mid-term measures, and the related usage of fuel oil consumption data.

11 Based on preliminary analysis and empirical feedback from various stakeholders (public authorities, entities performing verifications, representatives of the shipping industry, etc.), the co-sponsors have identified the following potential risks that should be further investigated and substantiated:

- .1 the risk of data gaps impossible or very difficult to correct due to the operators being unable to determine the value to be reported retroactively;
- .2 the risk of monitoring and/or reporting errors that would go undetected; while underlining that not all errors are significant, a sum of small errors can result in significant discrepancies within a set of data;

- .3 the risk of fraudulent misreporting, such as “underreporting”, in order to reach regulatory compliance for ships that would otherwise not be compliant, or to minimise or avoid financial consequences when a GHG pricing mechanism is in place;
- .4 the risk of failure of the verification process (failure of the flag Administration and/or the recognized organization (RO) acting on its behalf); and
- .5 the risk of insufficient or unsuitable internal data management procedures within the IMO Secretariat.

12 In addition to these risks, there may be other potential vulnerabilities, which would need further investigation, such as:

- .1 legal issues: determine whether the change in status of the DCS, from informational to compliance control tool, entails other legal consequences on the status of the database, taking into account in particular the development of the mid-term measures;
- .2 cyber-security issues: determine whether there is a high cyber-security risk related to the need to ensure a high level of protection of the data, not only for confidentiality reasons but also because compliance to regulations and financial consequences might be involved; and
- .3 adaptation issues: determine whether stakeholders have the capacity to adapt to a new, possibly more complex system. For example, certification of documents used as a basis for DCS data is outside the usual scope of classification societies, which means there might be an increase in the requirements for those performing verifications and a need to further frame their work.

13 The considerations presented in this document should be further analysed, in order to substantiate the risks as much as possible. Such substantiation could rely on an independent review of data management procedures, data quality and integrity, and verification within the DCS or even beyond, performed by qualified professionals with data auditing experience.

Possible actions that could be investigated to address potential risks and vulnerabilities

14 The co-sponsors are in favour of simple, efficient systems and want to avoid disproportionate additional administrative burden on ship-owners, ship operators and Administrations, whilst maintaining a level playing field and regulatory certainty. Any evolution of the DCS to be used as a basis for GHG measures should respond to the needs of the GHG measures, while addressing the potential risks and vulnerabilities identified as soon as possible for compliance with existing measures and, in any case, by the entry into force of the GHG measures.

15 Without prejudice to further analysis of this issue, the co-sponsors offer some possible ideas that may be considered to reduce potential risks and vulnerabilities:

- .1 revise the SEEMP Guidelines and the DCS verification Guidelines to offer more targeted guidance to shipping companies in their collection and reporting actions and to the flag Administrations and ROs in their

verification activities, based on the lessons learned from the implementation of the IMO DCS to date.

- .2 introduce additional levels of verification to supplement the current basic verification approach, to help identify and correct potential gaps or misreporting prior to the issue of a statement of compliance, e.g. with the intervention of a verifier to review the data and suggest to the Flag State possible corrections to close data gaps.
- .3 assist bodies in charge of the verification with additional guidance and alternative data sources, such as AIS data to estimate fuel consumption or data on the supply of marine fuels worldwide. For example, complement the current “bottom-up” approach (using data provided by fuel users) with a “top-down” approach (using data provided by fuel providers). This would become easier with the expected increase in the use of e-Bunker Delivery Notes (BDN) in accordance with MARPOL since MEPC 80.
- .4 use Artificial Intelligence or automated controls within the data sets in order to facilitate detection of potential anomalies, with criteria to be defined as appropriate (e.g. a system that would enable comparison between reported fuel consumption and expected fuel consumption for a given type of ship on a given route with a given operational profile).
- .5 increase the role of automation and standardisation in the processes, e.g. by encouraging the use of more automated tools for on-board collection, verification and reporting, such as automatic data flows from flowmeters and remote telemetry.
- .6 investigate whether Port State Control (PSC) stakeholders could play a role in the control of data quality, e.g. through checks of the implementation of the DCS Data Collection Plan on board (as provided in SEEMP part II), and possibly by reporting obvious inconsistencies between declarations and recent activity of the ship or fuels used on board.
- .7 strengthen capacity-building activities for shipping companies, ship operators and entities performing verifications.
- .8 promote peer review and external review of verification methods and procedures.

16 The list of actions presented above is not necessarily exhaustive. At this stage, it is only a suggestion to open the debate once risks and vulnerabilities are better known.

Conclusion and proposal

17 Ships’ fuel consumption and GHG emissions data quality and integrity, including data management and verification procedures, are key in the context of the IMO GHG emission reduction regulatory actions. The co-sponsors are of the view that the current IMO DCS data as a basis for present and future regulatory GHG measures may present some risks and vulnerabilities that need to be further identified and assessed before being eventually addressed with suitable, balanced and effective solutions.

18 To that purpose, the co-sponsors propose that the Committee invites the Secretariat to conduct, as soon as possible, a review of the suitability of the IMO DCS for the implementation and enforcement of current and future regulatory GHG measures. Such review, the form of which is to be discussed, would include data quality and integrity,

focusing, inter alia, on the identification and assessment of risks and vulnerabilities and possible solutions to address them.

Action requested to the Committee

19 The Committee is invited to consider the elements presented in this document and in particular the proposal made in paragraph 18, and take action as appropriate.