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NOTE

From:	General Secretariat of the Council
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Subject:	Draft submission by Member States and the Commission to the International Maritime Organisation's (IMO) 13th Intersessional Working Group on Reduction of GHG Emissions from Ships suggesting to amend the IMO Ship Fuel Oil Consumption Data Collection System (DCS) related to the granularity of data, additional data and their anonymization, rounding and accessibility

Delegations will find in the annex the final version on this draft submission as agreed by the Shipping Working Party.

INTERSESSIONAL MEETING OF THE
WORKING GROUP ON REDUCTION OF
GHG EMISSIONS FROM SHIPS
13th session
Agenda item 7

ISWG-GHG 13/7/XX
XXXX
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FURTHER CONSIDERATION OF THE REVISION OF THE SHIP FUEL OIL CONSUMPTION DATA COLLECTION SYSTEM (DCS)

Concrete proposal to amend the DCS related to the granularity of data, additional data and their anonymization, rounding and accessibility

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the European Commission

SUMMARY

Executive summary:	This document suggests amendments to Appendix IX of MARPOL Annex VI on the granularity of reported fuel consumption and additional data and provides suggestions for improvements regarding data anonymization, rounding and accessibility, with a view to optimise the use of the DCS to the benefit of shipping's decarbonisation policy-making.
Strategic direction, if applicable:	3
Output:	3.2
Action to be taken:	Paragraph 25
Related documents:	MEPC 77/7/11, ISWG-GHG 11/5, ISWG-GHG 12/2, MEPC 78 WP.5, Draft Final Report MEPC 78 WP.1, Resolution MEPC.293(71)

Introduction

1 At its seventy-eight session, the Committee approved draft amendments to Appendix IX of MARPOL Annex VI to include more information on each ship's carbon intensity performance in the IMO Ship Fuel Oil Consumption Data Collection System (DCS) in order to ensure that the Committee would have an overview of the implementation of the EEXI and CII measures.

2 The Committee also approved a dedicated workstream on its revision, inviting interested Member States and international organizations to submit concrete proposals to a future session of ISWG-GHG. The work-stream is to take into account the terms of reference proposed in paragraph 20 of MEPC 77/7/11 which are as follows:

.1 *identify other potential amendments to appendix IX of MARPOL Annex VI, including associated guidelines, to amend the IMO DCS, in addition to those presented in Annex I, in particular regarding the granularity of reporting of data related to fuel consumption and cargo related data and data related to relevant operational aspects of offshore and marine contracting vessels.*

.2 consider data anonymization and rounding of data

.3 consider accessibility of data in the IMO DCS; and

.4 based on the above, propose possible amendments to MARPOL Annex VI, appendix IX and/or associated guidelines

3 In the discussion at ISWG-GHG 12 and MEPC 78 on correction factors and voyage adjustments for CII, the need for more data was once again highlighted as the Committee invited interested Member States and international organizations to collect relevant data in the early years of implementation of the CII rating system and to report relevant information to the Committee ahead of the review of the CII regulations and guidelines to be completed at the latest by 1 January 2026. It should be noted that international organisations do not have access to the DCS and this places them at a disadvantage when it comes to reviewing and analysing data in order to suggest refinements to the CII measure.

4 It should also be noted that ISWG-GHG 12 requested the IMO Secretariat to explore possible alternative/additional data sources in order to calculate the demand-based metric on an annual basis as required by Resolution MEPC.338(76) 2021 Guidelines on the Operational Carbon Intensity Reduction Factors Relative to Reference Lines (CII Reduction Factors Guidelines G3).

5 Collectively, these all point to a need to further enhance the range, granularity and accessibility of the verified data collected by the DCS.

Inclusion of data on transport work and the use of innovative technologies

6 Limitations in the range of data collected by the DCS framework considerably restricted the options when setting short-term energy efficiency measures, and in particular during the development of the technical guidelines on carbon intensity (CII) reduction. To this end, it is proposed that additional data should be mandatorily collected, reported, and verified within IMO DCS.

7 Amongst the information that would greatly facilitate the referred exercise, cargo related data is considered to be critical for calculating transport-work, noting that the *supply-based* metric used for CII is a *proxy*; most recently, the Secretariat recognised - in ISWG-GHG 12/2 - that in the absence of cargo or any other relevant proxy data in the information to be submitted to the IMO DCS, as defined in appendix IX of MARPOL Annex VI, they are currently not in a position to calculate any demand-based measurements for fleet carbon intensity.

8 While it has been agreed to include voluntary reporting of the EEOI as a trial metric, a mandatory reporting to MEPC should be implemented in view of future discussions for the purpose of sufficient and harmonised information. While considering the use of the EU MRV data which represents a considerable sample of the international fleet, the IMO Secretariat acknowledged that such data is available only for ships calling EU ports.

9 Having considered the above, the co-sponsors reiterate the MEPC 77/7/11 proposal to allow the reporting of transport-work[1]. Given that the Guidelines provide for a wide range of different options (e.g. cargo mass, number of TEU, lane metres) to represent cargo or work done, the following table provides a suggestion for each applicable ship type in order to standardise reporting. It should be also noted that the possibility to fairly compare operational performances of individual ships within their ship type category can only be made if their cargo-related variables are kept equal; therefore, the co-sponsors are of the view that there should be only one mandatory variable to be reported per each ship type category.

Ship type	**Cargo related data**
bulk carriers, tankers, combination carriers, gas carriers, LNG carriers, ro-ro cargo, general cargo ships and vehicle carriers	Metric tonnes of cargo
Containerships	Metric tonnes of total mass of cargo and containers
cruise passenger ships	Number of passengers
ro-ro passenger ships	Number of passengers and metric tonnes of cargo
Other ship types	No cargo related data to be submitted

10 Having taken into account concerns that have been raised regarding commercial confidentiality of the actual amount of carried cargo as well as the objective of reporting such information for policy purposes, the co-sponsors propose that only annual aggregated transport-work per ship should be reported. From such information it is not possible to derive individual voyage cargo masses and disaggregated transport-work per voyage should only be submitted to the Administration for verification purposes.

11 The anonymization provided by the use of aggregated transport work is best illustrated with an example. MEPC.1/Circ.684 contains a worked example in the appendix:

$$EEOI = \frac{100 \times 3.114 + 23 \times 3.151}{(25{,}000 \times 300) + (0 \times 300) + (25{,}000 \times 750) + (15{,}000 \times 150)}$$

[1] As defined in *Guidelines for voluntary use of the ship energy efficiency operational indicator (EEOI)* (circular MEPC.1/Circ.684).

12 The denominator of the equation is the transport-work, and this equates to 28.5 million tonne nautical miles. Actual total cargo transported is 65,000 tonnes and total distance travelled (which will be reported to DCS) is 1,500 nautical miles. Attempting to derive the cargo transported by dividing transport work and distance travelled that is reported will give instead a figure for cargo transported that is 19,000 tonnes, completely different to the actual cargo transported.

13 Furthermore, under Regulation 22 of MARPOL Annex VI, it is now mandatory to report EEDI values and relevant information (as defined in Resolution MEPC.332(76)) to the IMO, and this is collected in the IMO EEDI database which is publicly accessible in GISIS. This reporting includes whether innovative technologies (as categorised in MEPC.1/Circ.896) have been installed. The IMO EEDI database however does not capture for example retrofits of innovative technologies on existing ships, nor does it include data on innovative technologies of category A (hydrodynamic). However, it is anticipated that retrofits of innovative technology will be carried out, encouraged by either the EEXI or CII frameworks, and no overview of the extent of technology uptake exists across the fleet of new and existing ships.

14 It is imperative to understand the contribution that innovative technology uptake can make to operational carbon intensity, and therefore it is suggested that the DCS collects data on whether innovative technology has been installed on each existing ship, including all categories A, B-1, B-2, C-1 and C-2 as defined in MEPC.1 Circ.896. This will also ensure that this information is updated annually and would thus consider any retrofits that have taken place. In this context, it is also proposed to report the total amount of power in kWh provided by onshore power supply.

Defining the required level of granularity of reported data

15 Another matter on which the co-sponsors would like to make a proposal is related to the granularity of the information reported as per appendix IX to MARPOL Annex VI. In order to be able to more precisely target policy measures to improve ship energy efficiency, it would be beneficial to have a more detailed insight into ships' fuel consumption performance and later on their respective carbon intensity. This could be achieved by separating fuel reporting based on a specific split of fuel consumption i.e. a split between machinery items category (main propulsion *vs* auxiliary systems) and a split between different operational modes (underway/transiting *vs* at berth/anchorage), particularly those related to port operations while the ship is not operating under its own propulsion. To note that the same differentiation is used to record both *distance travelled* and *hours underway*, defined under the Ship Energy Efficiency Management Plan (SEEMP)[2] and reported in appendix IX of MARPOL Annex VI.

16 Separating fuel reporting would also allow for better evaluation of the need for, and added value of, possible correction factors and voyage exclusions in the CII regulatory framework, noting that many of the correction factors proposed for inclusion in the interim G5 guidelines arise because main propulsion and auxiliary fuel consumption are not split e.g. ($FC_{Electrical}$) or the proposed voyage adjustment for excessive waiting time in ports. In other words, the proposed way forward is thought to be the most technically sound manner to more accurately address and incentivise energy efficiency improvements, either while the ship is sailing i.e. performing transport-work under its own propulsion or while being at berth/anchorage i.e. stopped.

17 To address potential concerns regarding additional administrative burden to crew that a split reporting per combustion system may imply, the co-sponsors would like to highlight that such disaggregated monitoring and internal reporting of fuel per combustion system per individual ship is being increasingly applied among shipping companies, for example for managing ship propulsion performance vs. hotel load and cargo related consumption onboard. In addition, the implementation of CII correction factors and voyage adjustments will further drive an increased uptake of such split reporting, minimising the risk of additional administrative burden in the

[2] Refer to the *2022 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP Guidelines)* (resolution MEPC.346(78)).

corresponding ship sectors. Furthermore, even for the cases where such differentiated and continuous monitoring equipment/software is not fitted on-board, the respective return of such initial investment could be rapidly obtained through the resulting implementation of improved on-board fuel management/saving policies. In fact, apart from the future regulatory framework, this has been one of the main reasons for companies to have taken the decision to install such performance monitoring systems on-board ships.

18 Having considered the above, the co-sponsors are of the view that higher granularity of the fuel consumption reporting should be considered as follows:

1. split of fuel consumed per main category of combustion system[3] (i.e. main engine(s), auxiliary engine(s)/generator(s), oil-fired boilers), and

2. split of fuel consumption assigned to port operations, while the ship is not underway under its own propulsion.

19 Considering the above, draft modifications to appendix IX of MARPOL Annex VI on the granularity of reporting fuel consumption and additional data, with track changes, are provided in Annex 1 to this document for easy reference.

Defining the required rounding, anonymisation and accessibility of reported data

20 The co-sponsors suggest that the current rounding, anonymisation and accessibility rules of the IMO DCS[4] should be further considered, by making it available to a wider maritime stakeholder community.

21 A higher degree of transparency, gained through a lower restriction policy in access, would encourage and improve the analysis of DCS data and benefit future decision-making within the Organization resulting in better tailored and targeted policies. It would also facilitate the implementation of Regulation 28.10 of MARPOL Annex VI, since many entities that would offer an incentive scheme for ships rated A or B may have difficulties in accessing the data needed with the current accessibility framework. In addition, a better accessibility on ships emission data would increase the credibility of the industry regarding its significant efforts towards decarbonisation by displaying their concrete positive evolution over time.

[3] Including innovative systems, such as fuel cells.

[4] Refer to the *2017 Guidelines for the development and management of the IMO Fuel Oil Consumption Database* (DCS Guidelines) (resolution MEPC.293(71)).

22 In this context, and with the sole purpose to continue stimulating GHG emission reduction activities, it is suggested to consider full public access to the DCS in a non-anonymized form. In this respect, it should be noted that apart from other databases which increasingly became available by and to industry stakeholders, the EU-MRV[5] non-rounded and non-anonymised data have been publicly displayed for four years without any reported negative impact to shipping companies and respective maritime operations. It should also be noted that MRV data was used as the analytical basis for a number of proposals to both MEPC and the IMO Correspondence Group during the development of the CII guidelines, while the 4th IMO Study and the comprehensive impact assessment uses MRV data for validation or calibration purposes.

23 Alternatively, different levels of access for different categories of users could be considered. Apart from the current users (IMO Secretariat, Member States Parties to MARPOL Annex VI - the flag Administrations - and/or Recognised Organisations carrying out statutory work on their behalf), the co-sponsors propose to consider extending access to the shipping companies, Intergovernmental and Non-governmental organisations with observer status, as well as the general public at a later stage e.g. during the CII review. In case such option is preferred by the Committee, the overview table set out in Annex 2 may serve as a basis for discussion.

24 Independently from the agreed approach on general access rights referred above, it is also suggested that, on a strictly voluntary basis, shipping companies are given the possibility to make their DCS data, in part or in full, available to every category of users and without any modification. Such a measure would boost research and analysis work, as well as transparency and recognition over the GHG emission reduction efforts of the shipping industry, without causing harm to any stakeholder. This could take the form of a tickbox, in a similar way to how the “Pre-session public release” tickbox found on IMO documents functions.

Action requested of the Working Group

25 The Group is invited to consider the draft amendments to appendix IX of MARPOL Annex VI on the granularity of reporting fuel consumption and additional data included in Annex 1, as well as the proposed way forward on the data anonymization, rounding and accessibility included in paragraphs 20 to 24 and Annex 2.

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[5] Refer to *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* (text with EEA relevance).

ANNEX 1

PROPOSED DRAFT AMENDMENTS TO MARPOL ANNEX VI

Appendix IX

Information to be submitted to the IMO Ship Fuel Oil Consumption Database

Identity of the ship

IMO Number . . . . . .

Period of calendar year for which the data is submitted

Start date (dd/mm/yyyy) ……

End date (dd/mm/yyyy) ……

Technical characteristics of the ship

Year of delivery……..……

Ship type, as defined in regulation 2 of this Annex or other (to be stated) ……

Gross tonnage (GT)[6] ……

Net tonnage (NT)[7] ……

Deadweight tonnage (DWT)[8] ……

Power output (rated power)[9] of main and auxiliary reciprocating internal combustion engines over 130 kW (to be stated in kW) ……

Attained EEDI[10] (if applicable)…… ……

Attained EEXI[11] (if applicable)……..

Ice class[12] ……

Fuel oil consumption, by fuel oil type in metric tonnes and methods used for collecting fuel oil consumption data *as follows:* ……

Fuel consumption per main combustion systems: Main Engine(s) + Auxiliary Engine(s)/Generators + Oil-fired Boilers……..

Fuel consumption assigned to port operations……..

Distance travelled ……

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6 Gross tonnage should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969.

7 Net tonnage should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969. If not applicable, note "N/A".

8 DWT means the difference in tonnes between the displacement of a ship in water of relative density of 1,025 kg/m^3 at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or an organization aby it. If not applicable, note "N/A".

9 Rated power means the maximum continuous rated power as specified on the nameplate of the engine.

10 Refer to the 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships (resolution MEPC.308(73), as amended by resolutions MEPC.322(74) and MEPC.332(76)).

11 As defined in 2021 Guidelines on the method of calculation of the attained energy efficiency existing ship index (EEXI) (resolution MEPC.333(76)

12 Ice class should be consistent with the definition set out in the International Code for Ships Operating in Polar Waters (Polar Code) (resolutions MEPC.264(68) and MSC.385(94)). If not applicable, note "N/A".

Hours underway……

Total transport work……

Total amount of on-shore power supplied (to be stated in kWh)……..

For ships to which Regulation 28 of MARPOL Annex VI applies:

Applicable CII[13]: □ AER □cgDIST

Required annual operational CII[14]……

Attained annual operational CII before any correction……

Attained annual operational CII……

Installation of innovative technology according to MEPC.1/Circ.896:

□A □B-1 □B-2 □C-1 □C-2

Operational carbon intensity rating[15]: □A □B □C □D □E

CII for trial purpose (on voluntary basis)[16]:

☐ EEPI (gCO_2/t/nm): ……

☐ cbDIST (gCO_2/berth/nm): ……

☐ clDIST (gCO_2/m/nm): ……

☐ EEOI (gCO_2/t/nm) [17]: …….

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[13] As defined in *2021 Guidelines on operational carbon intensity indicators and the calculation methods* (*CII guidelines, G1*) (resolution MEPC.336(76))

[14] As defined in *2021 Guidelines on the reference lines for use with operational carbon intensity indicators* (*CII reference lines guidelines, G2*) (resolution MEPC.337(76) and *2021 Guidelines on the operational carbon intensity reduction factors relative to reference lines (CII reduction factors guidelines, G3)* (resolution MEPC.337(76))

[15] As defined in *2021 Guidelines on the operational carbon intensity rating of ships (CII rating guidelines, G4)* (resolution MEPC.336(76))

[16] As defined in *2021 Guidelines on operational carbon intensity indicators and the calculation methods* (*CII guidelines, G1*) (resolution MEPC.336(76))

[17] As defined in *Guidelines for voluntary use of the ship energy efficiency operational indicator (EEOI)* (circular *MEPC.1/Circ.684*)

PROPOSAL FOR A DIFFERENCIATED ACCESSIBILITY RULES

OF THE

IMO SHIP FUEL OIL CONSUMPTION DATABASE AS DESCRIBED IN PARAGRAPH 23

3 DATA ACCESSIBILITY

Data	MARPOL Annex VI (IMO DCS)	IMO Secretariat	IMO MS Parties MARPOL Annex VI	ROs	Shipping Company	Observer Organizations (IGOs and NGOs), UN and specialized Agencies	Public (to be considered at the stage of the CII review)
Ship Identification	Ship Name/ IMO Number / Flag Period of calendar year for which the data is submitted: Start Date (dd/mm/yyyy) End Date (dd/mm/yyyy)	Current: Data available without any modification	Current: Flag data available without any modification Other Flags' data anonymised	Current: Submitted Flag data available without any modification (Statutory)	Proposal: Data to be made available in full for own ships only for checking purposes[18]	Proposal: Data to be made available in an anonymized form, in the same way as it is currently available to Parties for other flags' data	Proposal: IMO number only
Ship Technical	Year of delivery	Current: Data	Current: Flag	Current:	Proposal:	Proposal: Data to be	Proposal:

[18] To note that, under the current MARPOL Annex VI regulations, Shipping Companies do not report directly in DCS.

Characteristics	Ship Type*1 Gross Tonnage (GT) Net Tonnage (NT) Deadweight Tonnage (DWT) Attained EEDI (if applicable) Attained EEXI (if applicable) Ice Class Power Output (rated power) of main and auxiliary engines	available without any modification	data available without any modification Other Flags' data anonymised and rounded Proposal: Own and other Flag's Data available without any modification	Submitted Flag data available without any modification (Statutory)	Data to be made available in full for own ships only for checking purposes.	made available in an anonymized form, in the same way as it is currently available to Parties for other flags' data	Ship type only
Ship Operational Performance	Fuel Oil Consumption, by fuel oil type Monitoring methods used for collecting fuel oil consumption Distance travelled Hours underway Proposal: Fuel consumption split as follows: *1) FC per combustion*	Current: Data available without any modification Proposal: Data available without any modification	Current: Data available without any modification Proposal: Data available without any modification	Current: Submitted Flag data available without any modification (Statutory) Proposal: Submitted flag data available without any	Proposal: Data to be made available in full for own ships only for checking purposes	Proposal: Data to be made available in an anonymized form, in the same way as it is currently available to Parties for other flags' data	Proposal: None

	systems and *2) FC assigned to port operations* *Transport Work and on-shore power*			modification (Statutory)			
Energy Efficiency (Mandatory)	Applicable CII - Carbon Intensity Indicators: AER - Annual Efficiency Ratio (gCO2 /DWT•nmile) or cgDIST - Annual Efficiency Ratio (gCO2 /GT•nmile)	Current: Data available without any modification	Current: Flag data available without any modification Other Flags' data anonymised and rounded Proposal: Own and other Flag's Data available without any modification	Current: Submitted Flag data available without any modification (Statutory)	Proposal: Data to be made available in full for own ships only for checking purposes	Proposal: Data to be made available in an anonymized form, in the same way as it is currently available to Parties for other flags' data	Proposal: None
Energy Efficiency (Voluntary/Trials)	EEPI - Energy Efficiency Performance Indicator (M/C•DI) cbDIST (M/ALB•Dt)	Current: Data available without any modification	Current: Flag data available without any modification	Current: Submitted Flag data available without any modification	Proposal: Data to be made available in full for own ships only	Proposal: Data to be made available in an anonymized form, in the same way as it is currently available to Parties for other flags'	Proposal: None

	clDIST (M/Lanemeter•Dt) EEOI - Energy Efficiency Operational Indicator (gCO2/tonne•nmile or others)		Other Flags' data anonymised Proposal: Own and other Flag's Data available without any modification	(Statutory)	for checking purposes	data	
Energy Efficiency Requirements	Required annual operational CII Attained annual operational CII before any correction Attained annual operational CII Operational carbon intensity rating: A, B, C, D or E	Current: Data available without any modification	Current: Flag data available without any modification Other Flags' data anonymised and rounded Proposal: Own and other Flag's Data available without any modification	Current: Submitted Flag data available without any modification (Statutory)	Proposal: Data to be made available in full for own ships only for checking purposes	Proposal: Data to be made available in an anonymized form, in the same way as it is currently available to Parties for other flags' data Operational carbon intensity rating in a non anonymised form (with IMO number). Such data should not be disclosed in a non anonymised form.	Proposal: Operational carbon intensity rating only[19]

<u>Underlined italic text</u> reflects proposed amendments to Appendix IX of MARPOL Annex VI (Annex 1)

[19] Such information could be accompanied by methodological explanations about their significance and their limits with a view to ensure their best usage possible