

## Maritime Issues - European Commission publishes corrected first information on CO2 emissions for maritime transport activities in the European Economic Area (EEA) in 2018

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### 【概要 : Summary】

Global shipping's CO2 emissions could further grow between 50% and 250% by 2050, according to the International Maritime Organisation (IMO). At EU level, CO2 emissions from maritime transport are expected to increase by 86% above 1990 levels by 2050, due to further increases in the demand for the movement of goods. On the other hand, the EU intends to meet the Paris Agreement's target to keep the increase of temperature below 1.5° C and to achieve the EU's target to achieving zero GHG emissions by 2050. Therefore, measures have to be taken to also reduce the GHG emissions in maritime transport.

The IMO is responsible for dealing with the shipping industry's GHG emissions. On 13 April 2018, the IMO's Marine Environment Protection Committee (MEPC) 72nd session adopted the initial IMO strategy on reduction of GHG emissions from ships, RESOLUTION MEPC.304(72). It aims at reducing the total shipping sector's GHG emissions by "at least" 50% by 2050, from 2008 levels. In a first step, the IMO introduced a new mandatory fuel consumption data collection system (IMO DCS). However, since there exist several different requirements under the IMO's DCS compared to the EU MRV, which started already in 2018, the European Commission considered a revision of the Regulation (EU) 2015/757 on the MRV system necessary in order to align it with the IMO's DCS under the (COM (2019)38 final). The

current EU's MRV system for maritime transport requires large ships over 5,000 gross tonnage loading or unloading cargo or passengers at ports in the European Economic Area (EEA) to monitor and report their related CO2 emissions and other relevant information. On 30 June 2019, the European Commission has published the first information on CO2 emissions of vessels with more than 5,000 gross tonnage for maritime transport for the year 2018. However, after the publication, the Commission had immediately to revise the data and had to reduce the total CO2 emissions by ships calling at European ports in 2018 by more than 18 million tons. Due the criticism of the errors occurred, European Commission stated it would follow up on any errors and was confident the data would be correctly rectified. It can be expected that the final report to be published by the end of 2019 by the European Commission will contain the final version of corrected data.

### 【記事 : Article】

#### 1. The EU's GHG emission reduction policy in maritime transport - background

The global CO2 emissions from shipping are expected to further grow by between 50% and 250% by 2050, due to further increases in the demand for the movement of goods. The EU and its Member States are committed to significantly lower the GHG emissions in order to meet the Paris Agreement's target to keep the

increase of temperature below 1.5 ° C. Therefore, while the EU supports the IMO's GHG emission reduction strategy at international level, the EU has also introduced its own regional monitoring, reporting and verification system for CO2 emissions from maritime transport. Furthermore, the EU had put some pressure on the IMO to have a system in place as of 2021 for global shipping, comparable to EU-ETS. If this cannot be achieved, the European Commission intends to include shipping into the EU-ETS, starting from 2023.

As a first step in order to achieve a reduction of GHG emissions from maritime transport, the EU introduced Regulation (EU) 2015/757 on the monitoring, reporting and verification of CO2 emissions (MRV) in 2015. As of 2018, large ships of 5,000 gross tonnage and above, using EU ports were required to report their verified annual emissions and other relevant information. The main objective of this regulation was to promote the reduction of CO2 emissions from maritime transport in a cost effective manner, stimulate the uptake of energy efficiency solutions and inform future policy-making decisions with a view to reduce GHG emissions from shipping. Furthermore, the recent amendment to the EU Emissions Trading System (EU-ETS) Directive under Directive (EU) 2018/410 underlines the need to act also on shipping emissions. The Directive (EU) 2018/410 states that the Commission should regularly review IMO action and calls for action to address shipping emissions starting from 2023.

## **2. The IMO's Initial Strategy on Reduction of GHG Emissions from Ships**

Since the maritime transport's CO2 emissions are explicitly excluded from the UNFCCC's COP21 Paris agreement of future CO2 emission reduction, it is in the IMO's responsibility to take action to reduce the sector's GHG emissions. At its 70<sup>th</sup> meeting, the IMO's MEPC formally adopted the new mandatory fuel consumption data collection system requirements for ships and agreed on the introduction of the mandatory data collection system (IMO DCS). It also

approved a 2017–2023 roadmap for developing a “Comprehensive IMO strategy on reduction of GHG emissions from ships.” At its 71<sup>st</sup> meeting in July 2017, the MEPC adopted Guidelines for data verification procedures for the verification of annual fuel oil consumption data. The introduction of the new mandatory IMO DCS is intended to be the first in a three-step approach under the roadmap towards 2023. The focus was set on ships of 5,000 gross tonnage and above because they account for approximately 85% of CO2 emissions from international shipping.

On 13 April 2018, the IMO's MEPC 72 adopted the initial IMO strategy on reduction of GHG emissions from ships, RESOLUTION MEPC.304(72). The initial strategy refers to a range of short-, mid- and long-term measures. Short-term measures could be finalized and agreed between 2018 and 2023; mid-term measures, between 2023 and 2030; and long-term measures, beyond 2030. The initial strategy supports a three-step approach towards addressing CO2 emissions from international shipping and aims at reducing the total shipping sector's GHG emissions by “at least” 50% by 2050, from 2008 levels. It should, firstly, reduce the carbon intensity of ships through implementation of further phases of the EEDI for new ships, among others. Secondly, it includes a reduction of CO2 emissions per transport work, as an average across international shipping, by at least 40% by 2030, and towards 70% by 2050. The shipping sector's total GHG emissions should be reduced by “at least” 50%, compared to 2008. Thirdly, the GHG emissions from international shipping should peak and decline as soon as possible, including the minimum reduction of at least 50% by 2050.

Recently, the IMO's MEPC 74 confirmed the IMO's commitment to reducing GHG emissions from international shipping and approved, among others, amendments to strengthen existing mandatory requirements for new ships. The committee also agreed on the terms of reference for the 4th IMO GHG study and considered proposals for short-term measures. However, since no final decisions were

taken, the IMO will have to decide on the implementation of immediate measures by summer 2020 in order to achieve short-term GHG reductions.

### 3. The EU MRV system' s alignment with the IMO' s DCS

The IMO DCS (data collection system) began one year after the EU MRV in 2019. Whilst the IMO DCS requires the reporting of ships' fuel consumption data, the EU MRV requires the reporting of CO<sub>2</sub> emissions; weight of cargo carried and/or the number of passengers carried and energy efficiency. The EU MRV applies to commercial ships carrying passengers or cargo to/from European ports but does not apply to ship movements and activities, which are intended for dredging, ice-breaking, pipe-laying or offshore installation activities. Whilst the EU MRV has a focus on a breakdown of CO<sub>2</sub> emissions from voyages between EEA ports, voyages departing EEA ports and voyages arriving at EEA ports as well as emissions, which occurred at berth at an EEA port, the IMO DCS covers CO<sub>2</sub> emissions from shipping globally. Under the IMO DCS, ships must report fuel consumption data to their Administration or any organisation duly authorised by it ("Recognised Organisation") within three months after the end of each calendar year, the EU MRV requires the submission of data on a per-voyage basis in addition to per annum (unless all of a ship's voyages during the reporting period are between ports under the jurisdiction of a Member State and the ship performs more than 300 voyages during the reporting period in which case they can report annually).

Where there is a change in company owning the ship during the reporting period then the new company will be responsible for the ship's compliance with the MRV Regulation for the entire reporting period. A change of flag under the EU MRV would make no difference since the EU scheme captures all cargo and passenger ships that enter EU ports irrespective of their flag. Instead under the IMO DCS, in the event of a change of ownership from one company to another, the selling company is only responsible for

reporting the fuel data collected up to the date of change of ownership (e.g. signing of the sale agreement). In the event of change of Flag the ship owner will still have to submit all its fuel consumption data to the former Administration. With the exception of certain ships, the EU MRV scheme requires shipping companies to monitor for each ship above 5,000 gross tonnage they owned and/or operated since 1 January 2018, the amount of each type of fuel consumed (the relevant fuels are the same as the IMO DCS). They also have to monitor the emission factor for the relevant fuel, as prescribed by the EU MRV Regulation.

Shipping companies had until 30 April 2019 to submit the emissions report containing the required data for 2018 compliance to the European Commission and authorities of the Flag State. If a shipping company has carried out the emissions report correctly and has had it approved by an independent accredited verification body, a Document of Compliance (DoC) will be issued for each ship to be kept on board for inspections by local enforcement authorities and/or Port State Control. Inspections will commence on and from 30 June 2019.

Finally, a main difference between the EU MRV and the IMO's DCS is that unlike the globally collected fuel consumption data under the IMO DCS, under the EU MRV, CO<sub>2</sub> data collected is to be made publicly available. Publication of the EU MRV 2018 emissions data by the Commission will take place for the first time on 30 June 2019.

The IMO system entered into force in March 2018 and the collection of fuel consumption data started on 1 January 2019, one year after the EU MRV was introduced. Consequently, from 2019, ships calling into EEA ports will have to report under both the EU MRV Regulation and the IMO Data Collection System. Whether, how and when the two regimes will converge is not decided, yet. However meanwhile, in order to take into account the IMO's global data collection system for fuel oil consumption of ships, the European Commission adopted a proposal for a regulation to revise the EU MRV system of CO<sub>2</sub>

emissions from maritime transport (Regulation (EU) 2015/757), COM/2019/38 final.

The new proposal aims to facilitate the harmonious implementation of the IMO data collection systems and to preserving the objectives of the EU MRV legislation (Regulation (EU) 2015/757). The Commission aims to keep the collection of verified CO2 emissions data at individual ship level in order to stimulate the uptake of energy efficiency solutions and inform future policy making decisions. On the other hand, the proposal also aims at reducing the administrative burden and associated costs for ships having to report under both systems. The Commission's proposal also maintained other key elements of the EU's MRV, including the reporting data showing ships' air pollution in ports. However, the Commission yielded to pressure from the industry and the IMO to harmonise the EU's MRV system with the IMO's system, intending to remove the obligation on ships to collect and report cargo data. However, this will have the negative impact that the real-world performance of ships cannot be analysed anymore since the IMO's system exempts shipping companies from collecting data about their cargo. Nevertheless, key aspects of the EU MRV Regulation including the scope in terms of ships and activities, the exclusion of ship activities that are not considered maritime transport as well as the separate reporting and monitoring of ships' CO2 emissions within EU are to be maintained. Current provisions on verification of data by accredited third parties are to be kept in order to preserve the EU objective of providing comparable robust information for further decision making over time.

#### **4. European Commission publishes first information on CO2 emissions of vessels with more than 5,000 gross tonnage for maritime transport**

In the EU, from 1 January 2018, large ships over 5,000 gross tonnage loading or unloading cargo or passengers at ports in the European Economic Area (EEA) had to monitor and report their related CO2

emissions and other relevant information. On 30 April of each year, starting from 2019 companies shall, through THETIS MRV, a verified emissions report is submitted to the Commission and to the Flag States, in which those ships are registered, for each ship that has performed maritime transport activities in the European Economic Area (EEA) in the previous calendar year. From 2019 onwards, by 30 June of each year, companies had to ensure that all their ships that have performed activities in the previous reporting period and are visiting ports in the EEA carry on board a document of compliance issued by THETIS MRV. This document could be subject to inspections by EU Member States' authorities.

While the IMO system entered into force in March 2018 and the collection of fuel consumption data started on 1 January 2019, ships calling into EEA ports have now to report under both the EU MRV Regulation and the IMO Data Collection System.

On 30 June 2019, the European Commission published for the first time information on the CO2 emitted by ships over 5,000 gross tonnage with maritime transport activities within the European Economic Area (EEA). The publication of information regarding the CO2 emissions emitted by ships over 5,000 gross tonnage within EEA is part of the implementation of Regulation (EU) 2015/757. The Commission's information covers around 10,800 ships of various types, services and cargo carried, ranging from ro-ro passenger ships to bulk carriers, tankers and container ships. The ships' CO2 emissions represent more than 137 million tonnes of CO2 emissions, emitted during transport activities related to the European Economic Area in 2018. This figure represents a revised number of total CO2 emissions after the initially published data for the 10,880 vessels listed in the MRV system had been 151 million tons of CO2 in 2018.



### Total CO2 emissions of ships in the EEA in 2018 in tonnes

Source: <https://mrv.emsa.europa.eu/#public/emission-report>  
(Figure of 31 July 2019)

The information is part of the implementation of Regulation (EU) 2015/757 and the European Commission intends to analyse the detailed emissions data and publish a report with the final data of 2018 CO2 emissions from shipping towards the end of the year 2019. According to the first published data on ships' CO2 emissions, the containerships in the EEA emitted 28% of CO2 emissions from international shipping into and out of the EU in 2018, about a quarter of total shipping emissions. Container shipping carries about two-thirds of the EU's seaborne trade measured by value. Therefore, the value of the seaborne trade by containerships is favourable compared to the amount of CO2 emissions generated. This is also earned to the efforts made in the past ten years to improve the container sector's vessel fuel efficiency, with new vessels being 30 to 50% more efficient than the vessels they replaced.

Despite the efficiency gains in the container sector and the high ratio of cargo value carried relative to CO2 emissions, the fact remains that all sectors in maritime transport will need to do much more in the coming years in order to meet and exceed the ambitious CO2 reduction goals adopted by the IMO. The single most effective and necessary step will be a serious investment in research and development to replace fossil fuels in shipping. The World Shipping Council, and other organizations and governments are developing a proposal for an international research and development program for developing low and zero-

carbon fuels and technologies in maritime transport. However, after the publication of the data on 30 June 2019, figures of the EU MRV had already to be revised with an important revision on 3 July 2019 and a day later. Thereafter, the figures changed again as data is being added and revised. However, the current total CO2 emissions by ships calling at European ports in 2018 were around 137 million tonnes of CO2, a figure more than 18 million tonnes lower than the initially reported figure, firstly released in the THETIS MRV system. On the other hand, the data can only be preliminary and approximate in character, as further updated figures might enter the data bank before the European Commission will publish the final statistics by the at the end of 2019.

### 5. Conclusion

Although the introduction of global measures for reducing GHG emissions from international shipping is considered being the best approach, the slow response and progress to the CO2 emission problem within the IMO had triggered EU actions since 2013. The EU's strategy started with the monitoring, reporting and verification of CO2 emissions from large ships using EU ports, market-based measures in 2018. On 30 June 2019, the European Commission published for the first time the figure of total CO2 emissions of ships over 5,000 gross tonnage in maritime transport activities within the European Economic Area (EEA). Currently, the only result of CO2 emissions available is that of 2018 and only the development of the ships' total CO2 emissions in the next years will reveal a tendency of the maritime transport's CO2 emissions within the EEA. While the Thetis-MRV should be a platform showing the actual shipping industry's CO2 emissions, some questions and criticism surrounding the credibility of the data occurred after the initially published data had to be corrected. Therefore, while the actual data has been made available, the European Commission and EMSA will still have to issue their final report on the data's findings by the end of 2019. Meanwhile,

it will be the Commission's task to follow up on any errors in the EU MRV database ahead of the publication of the final report.

Under the COM (2019) 38 final, the transparency of the EU's MRV system is expected to help in the analysis of the ships further CO2 emissions within the EEA. The Commission's proposal also maintains key elements of the EU's current MRV system, such as reporting data showing ships' air pollution in ports, despite the envisaged alignment with the IMO's DCS. Thereby, the Commission intends to facilitate the harmonious implementation of the two MRV systems without repealing the EU's MRV system.

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