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Maritime Emissions: EU ETS, EU MRV, UK MRV and FuelEU Maritime Regulations- update

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Notice to: Ship Owners/ Managers/ Operators / Surveyors / Auditors / Environmental Verifiers

This circular is issued to update on the inclusion of maritime emissions in the EU Emissions Trading System, The FuelEU Maritime Regulation and MRV Regulations and covers:

- 2023 IMO Greenhouse gas strategy
- FuelEU Maritime Regulation
 - The FuelEU Monitoring Plan
 - The FuelEU Report
- Monitoring, reporting and verifying GHG emissions
 - EU MRV Regulations
 - UK MRV Regulations
- EU Emissions Trading System
 - Timing and Scope
 - Practical Implementation of the EU ETS in shipping
 - ETS Allowances
 - Buying and surrendering allowances in the Union Registry
 - Rules and Exemptions
 - Penalties for non-conformities:
- Support from the EU

2023 IMO Greenhouse gas strategy

In July 2023 the International Maritime Organisation (IMO) committed to new targets for GHG emissions reductions and to develop and adopt in 2025 a basket of measure(s), delivering on these reduction targets.

The next years to come will show which measures will be adopted and become applicable and whether they will be commensurate with achieving these targets and the objectives of the Paris Agreement.

The IMO revised its initial greenhouse gas emissions reduction strategy and set a goal of net zero emissions from ships “by or around 2050”. This is a major increase compared to the 2018 strategy, which aimed at reducing emissions from ships by just 50% in the same time horizon.

A trajectory has also been agreed aimed at reducing GHG emissions from ships by at least 20% - striving for 30% - in 2030 and at least 70% - striving for 80% - in 2040, both in comparison to 2008 levels.

The strategy also sets a target of at least 5% (striving for 10%) uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources by 2030.

FuelEU Maritime Regulation

As part of the European Commission’s legislative proposals to deliver the European Green Deal - the ‘Fit for 55’ package - published on 14 July 2021, several proposals addressed maritime transport’s climate impact, in addition to the extension of the EU ETS. This includes a new FuelEU Maritime Regulation to boost the demand for marine renewable and low-carbon fuels, by setting a maximum limit on the greenhouse gas content of energy used by ships calling at European ports and by encouraging zero-emission technology at berth, with a technology-neutral approach. This regulation was adopted by the EU in July 2023, with implementation starting from 1st January 2025.

The timelines for shipping companies to prepare for the FuelEU Maritime Regulation are:

- **By 31 August 2024**

Shipping companies should submit to the verifier a FuelEU Monitoring Plan setting out the methods for monitoring and reporting the amount of energy (fuel type and consumption) used by ships during voyages and alongside. Ships calling at an EU/EEA port for the first time after 31 August 2024 should submit a FuelEU monitoring plan to the verifier within 2 months of that port call.

The monitoring plan is assessed for conformity with the requirements before the monitoring period starts and recorded in the FuelEU database by the verifier.

- **From 1 January 2025**

The data and information identified in the FuelEU Monitoring plan should be recorded, for each ship.

- **By 31 January 2026 (and by 31 January every year thereafter)**

The data and information recorded for the previous year should be submitted to the verifier as the FuelEU Report for each ship. The submitted report will be assessed by the verifier by 31st March and recorded in the FuelEU database.

- **By 30 April 2026 (and by 30 April every year thereafter)**

Shipping companies can record banking, borrowing and pooling as necessary, on the FuelEU database after the FuelEU report is verified and recorded in the database by the verifier, no later than 30 April.

- **By 30 June 2026 (and by 30 June every year thereafter)**

Based on the information recorded in the FuelEU database, the shipping company receives a FuelEU Document of Compliance of the ship, issued by the verifier, if the shipping company meets both the provisions of the GHG intensity and the use of onshore power supply (OPS), i.e. in case no need to pay a penalty.

Where a shipping company does not meet the GHG intensity limit or there was a non-compliance with the use of OPS, the penalty should be paid by this date, and the shipping company will receive a FuelEU Document of Compliance issued by the competent authority.

The FuelEU monitoring plan

In accordance with the above timeline companies should prepare a FuelEU Monitoring Plan and have it assessed by a verifier before the start of the monitoring year.

The FuelEU Monitoring Plan should include relevant information such as:

- Ship's type / name / IMO number / shipowner and information on the shipping company
- Sources of energy to be used onboard while navigating and alongside
- Procedures for monitoring the fuel consumption of each fuel type
- Procedures for monitoring the full fuel life cycle emission factors of energy to be used
- Standards and characteristics of OPS or zero-emission technology, and
- Value of the established total electrical power demand of the ship whilst alongside

The FuelEU Report

At the end of the monitoring year, a FuelEU Report should be prepared for submission to the verifier

The FuelEU Report should include relevant information such as:

- Departure and arrival ports (including date and time)
- Amount of fuel used while alongside, and at sea, and
- Amount of electricity supplied to the ship through the onshore power supply.

Monitoring, reporting and verifying GHG emissions

EU MRV Regulations

Since 1 January 2018, ships over 5,000 gross tonnage loading or unloading cargo or passengers at ports in the European Economic Area (EEA) must monitor and report related GHG (CO₂) emissions, including, from 1 January 2024, nitrous oxide and methane emissions. Monitoring, reporting and verification (MRV) of information must be done in conformity with the 'MRV Maritime Regulation.

The MRV Maritime Regulation was conceived as a first step before the inclusion of these emissions within the scope of the EU Emissions Trading System. The MRV Maritime Regulation was revised in 2023 in the light of the inclusion of maritime transport emissions within the scope of the EU ETS.

The main obligations for companies eligible under the MRV Maritime Regulation:

- **Monitoring:** companies must monitor, for each of their ships, greenhouse gas emissions, fuel consumption and other parameters, such as distance travelled, time at sea and cargo carried on a per voyage basis, so as to gather annual data into an emissions report verified by an accredited MRV shipping verifier.
- **Emissions report:** by 30 April of each year (31 March as of 2025), companies must, through [THETIS MRV](#), submit to the Commission and to the States in which those ships are registered ('flag States') a satisfactorily verified emissions report for each ship that has performed maritime transport activities in the European Economic Area in the previous reporting period (calendar year). As from 31 March 2025, emissions reports should also be submitted to the responsible administering authority through THETIS-MRV.
- **Document of compliance:** by 30 June of each year, companies must ensure that all their ships that have performed activities in the previous reporting period and are visiting ports in the European Economic Area carry on board a document of compliance. This might be subject to inspections by Member States' authorities.

Every year, the Commission publishes a report to inform the public about the greenhouse gas emissions and energy efficiency information of the monitored fleet.

For each of their ships carrying out voyages to and/or from EEA ports after 1 January 2024, companies must fulfil the following monitoring and reporting obligations:

- Revise the monitoring plan of each of their ships to be in conformity with the requirements of the MRV Maritime Regulation. This plan must be assessed as being in conformity by an independent verifier before 1 April 2024, or no later than three months after each ship's first call in a port under the jurisdiction of an EU Member State.
- By 1 April 2024, or no later than three months after each ship's first call in an EU port, companies must, for each of their ships falling within the scope of the ETS Directive, submit to the administering authority a monitoring plan that has been assessed as being in conformity with the MRV Maritime Regulation by the verifier and that reflects the inclusion of CH₄ and N₂O emissions within the scope of the MRV Maritime Regulation.
- From 1 January 2024, companies must monitor and report methane (CH₄) and nitrous oxide (N₂O) emissions, in addition to CO₂ emissions.
- From 2025, by 31 March of each year, companies must, for each ship under their responsibility, submit an emissions report for the entire reporting period of the previous year, which has been verified as satisfactory by a verifier, to:
 - the administering authority,
 - the authorities of the flag States concerned for ships flying the flag of a Member State,

- and the European Commission.
- The administering authority may require companies to submit their emission reports earlier than 31 March, but not earlier than 28 February.
- From 2025, by 31 March of each year, companies must submit aggregated emissions data at company level.

UK MRV Regulations

On 31 January 2020, the UK withdrew from the EU. A transition period applied until 31 December 2020, during which EU law continued to apply in the UK. Since then, the UK has had a new relationship with the EU based on the 'EU-UK Trade and Cooperation Agreement'. The impact of this was that since the end of 2020:

- Verifiers under the EU MRV regime need to be accredited by a national body of an EU Member State to carry out verification activities. It is no longer sufficient to be accredited by the United Kingdom Accreditation Service (UKAS).
- Regulation (EU) 2015/757 on Monitoring, Reporting and Verification of Carbon Dioxide (CO₂) Emissions from Maritime Transport, no longer applies to the UK.
- Emissions data within ports under the jurisdiction of the UK; or from voyages from a port of the UK to the port of a third country, and vice-versa, are no longer to be reported under the EU MRV regime.

Although the UK is no longer part of the EU MRV regime, Regulation (EU) 2015/757 was retained in UK domestic law under the EU (Withdrawal) Act 2018, subject to amendments needed to make it operable in a UK-only context.

The UK also retained, and, where necessary, amended the following legislation:

- Commission Delegated Regulation (EU) 2016/2071 (ship emissions monitoring methods);
- Commission Implementing Regulation (EU) 2016/1928 (cargo carried);
- Commission Implementing Regulation (EU) 2016/1927 (ship emissions templates) and
- Commission Delegated Regulation (EU) 2016/2072 (shipping emissions verification and accreditation).

The legislation establishing the UK MRV regime is therefore similar to the EU MRV regime, but the amendments to it are set out in the Merchant Shipping (Monitoring, Reporting and Verification of Carbon Dioxide Emissions) (Amendment) (EU Exit) Regulations 2018 ([SI 2018/1388](#)).

The UK Department of Transport is working to develop a digital reporting system and has decided to delay the requirement for ship operators to report emissions until the digital reporting system is fully operational. Ship operators and verifiers are to continue to collect, verify and hold the data routinely, but are not required to report the data until further guidance on the digital reporting system is issued. No enforcement action will be taken by the Maritime and Coastguard Agency until reporting begins.

The main elements in the establishment of the new regime which stakeholders should be aware of are:

- Ship operators should be collecting emissions data for their ships under the UK MRV regime from 1 January 2022.
- No emissions data should be supplied for 2021 for the UK MRV regime, although data for voyages between the UK and countries in the EEA should still be reported to the European Commission under the EU MRV regime. Any emissions data for voyages to and from UK ports in 2020 should have been reported to the European Commission by April 2021.
- The type of vessel within scope of the UK MRV regime and type of emissions data for collection will be the same as those under the EU MRV regime.
- To avoid duplication, data for voyages between UK and EEA ports, and vice-versa, are not to be reported under the UK MRV regime. Data on these voyages should continue to be submitted to the European Commission under the EU MRV regime.
- Emissions data for voyages between UK ports, between UK and non-EEA ports, and vice-versa, and from vessels at berth in a UK port will need to be included in the UK MRV emissions report.
- Until reporting is required, a separate DoC will not be required by ship operators to cover voyages to and from UK ports, made in the previous reporting period, which fall outside the scope of the EU MRV.
- The UK Department of Transport has agreed to extend the initial period during which the UK will allow verifiers accredited for the EU MRV by a European National Accreditation Body (NAB) to be recognised as verifiers under the UK MRV regime, until the end of 2023. From 1 January 2024, all verifiers must be accredited by the United Kingdom Accreditation Service (UKAS).
- An assessed UK MRV monitoring plan should already be in place.
- The UK no longer has access to the EU's THETIS-MRV database. Data reports will be entered into a separate digital reporting system which is under development.

The key legal requirements under the UK MRV regime are:

- It applies to ships over 5,000 gross tonnes, transporting cargo and/or passengers for commercial purposes to and from UK ports, between UK ports or within UK ports (including while at berth).
- The same exemptions apply to vessels under the UK MRV regime (e.g. for warships), that apply under the EU MRV regime.
- Ship operators must have in place an assessed monitoring plan before data collection begins. An existing monitoring plan under the EU MRV regime for the vessel may be used (appropriately modified as necessary) for both the EU and the UK MRV regime, if the Verifier agrees.
- The assessment of the monitoring plan and the verification of the annual emission report for each ship needs to be done by a verifier accredited by the United Kingdom Accreditation Service (UKAS).
- Each ship must have its emissions monitored and its data collected for each reporting period, ready for verification.

The following points will also be key legal requirements of the UK MRV regime once the reporting obligation commences.

- By 30 April following each reporting period, a verified emissions report must be submitted to the UK Administration covering the previous reporting period.
- By 30 June following each reporting period, a valid Document of Compliance (DoC) must be carried on board each vessel covering the previous reporting period (A valid UK DoC is needed from 30 June 2023, for voyages subject to the UK MRV regime in the previous reporting period).
- A DoC issued under the EU MRV regime and which covers voyages between the UK and European Economic Area (EEA) ports is recognised as a UK DoC equivalent for those voyages only (EEA port includes EU States, Norway, Iceland and ports in the EEA outermost regions such as the Azores, the Canary Islands, French Guiana, Guadeloupe, Madeira, Martinique, Mayotte, Reunion and Saint Martin).
- There are requirements on the Department for Transport to make MRV data available and report annually on the findings.

There are no specific legal requirements regarding the way ship operators submit their monitoring plans to the accredited verifier, so it is up to the parties to agree these procedures bilaterally. Only the ship operator and verifier need to see the full monitoring plan. There is no legal requirement for a copy of the monitoring plan:

- to be carried on board the ship (although the crew may need a copy to ensure proper collection of emissions data),
- to be submitted to the UK Administration, or
- to be uploaded onto the new UK reporting system, once available.

EU Emissions Trading System

In January 2024, the [EU's Emissions Trading System](#) (EU ETS) will be extended to cover CO₂ emissions from all ships (of 5000 gross tonnage and above) entering EU/EEA ports, regardless of the flag they fly.

The system covers:

- 50% of emissions from voyages starting or ending between EU/EEA ports and non-EU/EEA ports.
- 100% of emissions that occur between two EU/EEA ports and when ships are within EU/EEA ports.

The EU ETS covers CO₂ (carbon dioxide), and from 2026 CH₄ (methane) and N₂O (nitrous oxide), emissions.

The system builds on the provisions in place for other EU ETS sectors, as well as the recently revised EU Monitoring, Reporting and Verification Regulation for maritime transport ('MRV Maritime Regulation').

In practice, shipping companies have to purchase and surrender (use) EU ETS emission allowances for each tonne of reported CO₂ (or CO₂ equivalent) emissions in the scope of the EU ETS system.

To ensure a smooth transition, shipping companies only have to surrender allowances for a portion of their emissions during an initial phase-in period:

- 2025: for 40% of their emissions reported in 2024;
- 2026: for 70% of their emissions reported in 2025;
- 2027 onwards: for 100% of their reported emissions.

A reporting and review clause is included to monitor the implementation of the rules applicable to the maritime sector and to consider relevant developments in the International Maritime Organisation (IMO). These rules were adopted on 16 May 2023 and entered into force on 5 June 2023.

The legal texts can be found at:

- [Amendments to the Regulation on the Monitoring, Reporting and Verification \(MRV\) for Maritime Transport \(Regulation \(EU\) 2015/757\)](#)
- [Amendments to the ETS Directive \(Directive EC/2003/87/EC\)](#)

Timing and Scope.

The EU ETS Directive applies to ships as follows:

- From 2024: cargo and passenger ships of or above 5000 gross tonnage (GT)
- From 2027: offshore ships of or above 5000 GT

Greenhouse gas emissions falling within the scope of the EU ETS Directive are:

- Carbon dioxide (CO₂)
- Methane (CH₄) as of 2026
- Nitrous oxide (N₂O) as of 2026

The Directive covers the following emissions from maritime transport:

- 100% of emissions from ships performing voyages departing from an EU/EEA port and arriving at an EU/EEA port;
- 100% of emissions from ships within an EU/EEA port, i.e. emissions released at berth and during movements within such a port;
- 50% of emissions from ships performing voyages departing from an EU/EEA port and arriving at a port outside of the EU/EEA;
- 50% of the emissions from ships performing voyages departing from a port outside the EU/EEA and arriving at an EU/EEA port.

For the purposes of the scheme, a port of call is the port where a ship stops to load or unload cargo, to embark or disembark passengers, or where an offshore ship stops to relieve the crew. The following stops are excluded:

- stops for the sole purposes of refuelling,
- stops for obtaining supplies,
- stops for relieving the crew (other than an offshore ship),
- stops for going into dry-dock or making repairs to the ship and/or its equipment,
- stops in port because the ship needs assistance or is in distress,
- ship-to-ship transfers carried out outside ports,
- stops for the sole purpose of taking shelter from adverse weather or rendered necessary by search and rescue activities,
- stops of containerships in the neighbouring container transshipment ports listed in the implementing act to be adopted by the end of 2023.

Practical Implementation of the EU ETS in shipping

The European Commission aims to provide sector-specific rules and templates in relevant implementing and delegated acts to be adopted by the end of 2023, in order to ensure uniform implementation of the EU ETS and MRV rules. In particular, new templates for monitoring plans, emissions reports and reports at company level will be provided.

ETS Allowances

The EU Emissions Trading System (ETS) is a 'cap-and-trade' system. The cap is a threshold, defining the total amount of greenhouse gases that can be emitted by the operators covered by the system. It is reduced annually, at fixed intervals, in line with the EU's climate target.

The ETS objective is to reduce emissions by 62% from 2005 to 2030.

The cap is expressed in emission allowances, where one allowance gives the right to emit one tonne of CO₂eq (carbon dioxide equivalent). Operators are not allowed to generate more greenhouse gas emissions than their allowances can cover. If they do, heavy fines are imposed. Companies covered by the EU ETS must surrender (use) EU allowances corresponding to their emissions. For instance, if a company emits 10,000 tonnes of CO₂ falling within the scope of the EU ETS Directive during a reporting period, that company needs to buy and surrender 10,000 allowances by 30 September of the following year. Emission allowances are auctioned, and companies can buy and sell them through secondary markets.

Shipping companies covered by the EU ETS are required to have an approved monitoring plan for monitoring and reporting annual emissions. Every year, companies must submit an emissions report for each ship under their responsibility, as well an emissions report at company level (aggregating the ship data to be reported for ETS purposes). The data for a given year must be verified by an accredited verifier by 31 March of the following year (or by 28 February if so requested by the administering authority). Once verified, companies must surrender (use) the equivalent number of allowances by 30 September of that year.

Buying and surrendering allowances in the Union registry

In 2012, EU ETS operations were centralised into a single EU registry operated by the European Commission. The Union Registry covers all countries participating in the EU ETS.

The Union Registry is an online database that holds accounts for stationary installations and for aircraft operators. The rules on the Union Registry are currently being revised, to reflect the inclusion of the maritime sector within the EU ETS (e.g. through the creation of new 'Maritime Operator Holding Accounts'). The adoption of the revised Registry Regulation is planned for late 2023. It is expected that shipping companies will be able to open Maritime Operator Holding Accounts in 2024, after the European Commission publishes the list of attribution of shipping companies to the responsible administering authorities.

The Registry records:

- National implementation measures (a list of installations covered by the ETS Directive in each EU country and any free allocation to each of those installations)
- Accounts of companies or individuals holding such allowances
- Transfers of allowances ("transactions") performed by account holders
- Annual verified CO₂ emissions from installations and aircraft operators
- Annual reconciliation of allowances and verified emissions, where each company must have surrendered enough allowances to cover all its verified emissions.

Emission allowances can be purchased in the primary market through auctions on the [European Energy Exchange \(EEX\)](#). There is also a secondary market in which allowances can be sold bilaterally or through various derivatives provided by financial institutions. To purchase ETS allowances, companies need to open a trading account or a maritime operator holding account in the Union Registry. Note that the latter option will not be available before 2024.

EU allowances (EUA) issued on or after 2013 do not expire and may be banked for future years. However, an allowance that has been surrendered cannot be retrieved.

Rules and Exemptions

Some exemptions will apply, e.g. for certain voyages to outermost regions or some small islands, or to the benefit of ships using renewable fuels:

- Ships of ice class IA, IA Super or an equivalent ice class, may surrender 5% fewer allowances than their verified emissions released until 31 December 2030.
- Until 31 December 2030, shipping companies must not surrender allowances for emissions released by passenger ships, other than cruise passenger ships, and by ferries (ro-pax ships), between a port of an island under the jurisdiction of an EU Member State, with no road or rail link with the mainland, and a port under the jurisdiction of that same EU Member State. This exemption only applies, upon request of each EU Member State, to islands with a population of fewer than 200,000 permanent residents. The list of ports will be published by the end of 2023.
- In case of transnational public service obligations / contracts established by two EU Member States, one having no land border with another EU Member State and the other being the closest, shipping companies must not surrender allowances for emissions released by passenger ships or ferries (ro-pax ships) operating under such a public service obligation until 31 December 2030. The list of concerned route(s) will be published by the end of 2023.

By 31 December 2023 and every two years thereafter, the Commission will publish an implementing act on neighbouring container transshipment ports. Stops of containerships in the identified ports should not be considered as port of calls for the purposes of the MRV Maritime Regulation and ETS Directive. A port will be considered a 'neighbouring container transshipment port' when its share of transshipment of containers exceeds 65% of its total container traffic and when that port is located outside the Union but less than 300 nautical miles from a port under the jurisdiction of an EU Member State. A port will not be

considered a 'neighbouring container transshipment port' if it is located in a third country for which that third country effectively applies measures equivalent to the ETS Directive.

Penalties for non-conformities:

The EU-ETS sets the penalties to the shipping companies who are in breach of requirements to surrender sufficient allowances. Penalties for the company are:

- Publication of the company's name;
- Excess emissions penalty of EUR 100 per tonne CO₂ equivalent emitted in excess of the surrendered allowances. Payment does not release the Company from the obligation to surrender an amount of allowances equal to the excess emissions when surrendering allowances in relation to the following calendar year; and
- A company that has failed to comply with the surrender requirements for two or more consecutive reporting periods, and where other enforcement methods have failed, may be issued with an expulsion order from the competent authority of the member State of the port of entry.

Support from the EU:

The EU Commission and the European Maritime Safety Agency are available to answer any queries from stakeholders in relation to the new requirements under the revised MRV Maritime Regulation and the EU ETS Directive. The contact for such queries is: fitfor55@emsa.europa.eu

Act now

DBS urges Ship Owners/ Managers/ Operators having ships within the scope of EU ETS, EU MRV, UK MRV, and Fuel EU Maritime Regulations to prepare for the updated requirements, taking into consideration all the above and ensure timely compliance with the legislation once in effect. Follow-up of the Regulatory Updates and the Issued Circulars is highly advised.