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COMMISSION STAFF WORKING DOCUMENT

Union submission to the International Maritime Organization's 12th Intersessional Working Group on Reduction of GHG Emissions from Ships suggesting a Greenhouse Gas (GHG) Fuel Standard

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PURPOSE

This Staff Working Document contains a draft Union submission to the International Maritime Organization's (IMO) 12th Intersessional Working Group on Reduction of GHG Emissions from Ships. The IMO has indicatively scheduled ISWG-GHG 12 from 16 to 20 May 2022.

The draft submission suggests a Greenhouse Gas (GHG) Fuel Standard (GFS) as a mid-term measure to be adopted by MEPC in accordance with the work plan approved by MEPC 76.

The GFS would be a goal-based measure to provide long-term certainty to shipping companies and fuel producers alike. It will also enable to ensure that the demand for low- and zero-GHG fuels from the shipping sector will increase. This is essential for starting and achieving the transition towards these fuels. The GFS would be a technical measure that can be an essential element of a combination of measures aimed at achieving the levels of ambition of both the Initial and the revised IMO Strategy and should be further developed during Phase II of the work plan expected to start upon completion of Phase I in spring 2022. It follows a previous submission at ISWG-GHG 10.

EU COMPETENCE

Regulation (EU) 2015/757¹ (EU MRV Regulation) establishes the legal framework for an EU system to monitor, report and verify (MRV) CO₂ emissions and energy efficiency from shipping. The regulation aims to deliver robust and verifiable CO₂ emissions data, 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.

Any IMO measure on GHG matters, which will unequivocally require the monitoring, verification and reporting of GHG emissions from shipping, would affect the EU MRV Regulation. Therefore, the EU has exclusive competence for GHG emissions in shipping.

In addition, on 14 July 2021, the Commission adopted the *Fit for 55* package of proposals to reduce GHG emissions. *Fit for 55* includes a number of Commission's proposals that specifically target the shipping sector, such as the revision of the EU Emission Trading System (ETS) to include the maritime transport sector (and the corresponding amendments to the EU MRV Regulation)² but also the FuelEU maritime proposal³, which focuses on the use of renewable and low-carbon fuels in the maritime sector and mandates the uptake thereof by the ships calling EU ports. Under the case-law⁴, the risk of affectation concerns not only the rules as they stand, but also their foreseeable future development. These legislative initiatives further lead to the exclusive competence of the EU for GHG emission in shipping.⁵

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 COM(2021) 551 - Proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757

³ COM(2021) 562 - Proposal for a regulation of the European Parliament and of the Council on the use of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC.

⁴ Opinion 1/03 of the Court of Justice of 7 February 2006, Lugano Convention, point 126.

⁵ See in particular Commission proposal COM(2021) 551 referred to in footnote 2. It introduces a reporting and review provision (Article 3 ge) into Directive 2003/87 regarding possible amendments in relation to the adoption by the International Maritime Organisation of a global market-based measure to reduce greenhouse gas emissions from maritime transport. The existence of such a review provision confirms the existence of a risk of affectation of the existing and foreseeable EU acquis.

An EU position had been established for the Union submission ISWG-GHG 10/5/3 concerning the GHG Fuel Standard (GFS) that was put forward as a mid-term measure. The measure was extensively discussed at ISWG-GHG 10. The current draft submission further develops the GFS and provides a more detailed description, taking into account the comments made during ISWG-GHG 10 in order to advance discussions on prioritization of mid-term measures.

In light of all of the above, the present draft Union submission falls under EU exclusive competence.⁶ 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 1 April 2022.⁷

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). The present submission, however, does not produce legal effects and thus the procedure for Article 218(9) TFEU is not applied.

⁷ The submission of proposals or information papers to the IMO, on issues falling under external exclusive EU competence, are acts of external representation. Such submissions are to be made by an EU actor who can represent the Union externally under the Treaty, which for non-CFSP (Common Foreign and Security Policy) issues is the Commission or the EU Delegation in accordance with Article 17(1) TEU and Article 221 TFEU. IMO internal rules make such an arrangement absolutely possible as regards existing agenda and work programme items. This way of proceeding is in line with the General Arrangements for EU statements in multilateral organisations endorsed by COREPER on 24 October 2011.

REDUCTION OF GHG EMISSIONS FROM SHIPS

Proposal for a GHG Fuel Standard

Submitted by the European Commission on behalf of the European Union

SUMMARY

Executive summary: This document suggest a Greenhouse Gas (GHG) Fuel Standard (GFS) as a mid-term measure to be adopted by MEPC in accordance with the work plan approved by MEPC 76. The GFS would be a goal-based measure to provide long-term certainty to shipping companies and fuel producers alike and help ensure that the demand for low- and zero-GHG fuels from the shipping sector will increase. This is essential for starting and achieving the transition towards these fuels. The GFS would be a technical measure that can be an essential element of a combination of measures aimed at achieving the levels of ambition of both the Initial and the revised IMO Strategy and should be further developed during Phase II of the work plan.

Strategic direction, if applicable: 3

Output: 3.2

Action to be taken: Paragraph 36

Related documents: ISWG-GHG 10/5/3, ISWG-GHG 10/5/6, MEPC 77/WP.7, ISWG-GHG 12/3/X

Introduction

1 There is a broad recognition that the first zero-emission vessels need to enter the fleet well before the end of this decade. Because of the long lifetime of ships and the need to build up fuel production capacity and bunkering infrastructure, a delayed introduction would jeopardize achieving the Levels of Ambition of the Initial IMO Strategy on Reduction of greenhouse gas (GHG) Emissions from Ships.

2 MEPC 76 adopted a work plan for the development of mid- and long-term measures, which as its first phase will collate and initially consider suggestions for measures through identification of key issues that should be considered in relation to each suggested measure. This goes along with considerations of their potential impacts on States in application of MEPC.1/Circ.885. The first phase is expected to be concluded in spring 2022 and immediately followed by the initiation of the second phase of the work plan. The purpose of the second phase is to identify (a) candidate measure(s) to develop further as a priority. Hence, the EU suggests this measure to be taken further as a priority.

3 A GHG Fuel Standard (GFS), initially also referred to as Low-GHG Fuel Standard (LGFS), was put forward as a mid-term measure in the EU submission ISWG-GHG 10/5/3 and ISWG-GHG 10/5/6 (Norway). The measure was extensively discussed at ISWG-GHG 10 and the co-sponsors of the submissions received many valuable comments and questions during the debate (MEPC 77/WP.7).

4 This submission further develops the GFS and provides a more detailed description, taking into account the comments made during ISWG-GHG 10 in order to advance discussions on prioritization of mid-term measures. A separate submission contains the initial impact assessment (ISWG-GHG 12/2/XX).

Rationale of a GHG Fuel Standard

5 The ambitions of the Initial IMO Strategy on Reduction of GHG Emissions from Ships cannot be met without a transition towards low- and zero-GHG fuels (fuels with zero GHG emissions over their lifecycle or lower compared to fossil fuels). By addressing the root cause of maritime GHG emissions, i.e. combustion of fuels, the GFS would be an important technical measure that drives the required fuel transition. It would provide a predictable phase in of low- and zero-GHG fuels, both for ship operators and fuel producers, leading to the actions needed to meet the ambitions for emission reductions.

6 In order to allow sufficient time to build the production capacity for low- and zero-GHG fuels, the bunkering infrastructure and for the fleet to adjust to the new fuels, it is important to adopt the GFS before the middle of this decade. Significant investments in fuel production, bunkering infrastructure and the fleet would be required. A delay in starting the fuel transition would imply that the transition to low- and zero-GHG fuels would have to be completed in a much shorter time span. This would increase the costs of the transition, because shortages could occur in many markets and assets such as ships sailing on conventional fuels might need to be written down faster than expected.

7 A gradual but swift uptake of low- and zero-GHG fuels requires stimuli to overcome a number of barriers. Such barriers are the lack of predictability of the regulatory framework (leading to the 'wait and see' attitude of market operators), high interdependency with supply and distribution (the so-called chicken-and-egg situation), and significantly higher costs compared to fossil fuels (price gap). As a result, ships will not demand low- and zero emission fuels, and thus suppliers will not make them available. To resolve the non-pricing barriers to the deployment of low- and zero-GHG fuels, a mandatory regulation to create a market for these fuels is required to initiate the fuel transition. An ambitious GFS sets a technical requirement ensuring that ships demand low- and zero-GHG fuels, which is a prerequisite for investments in fuel production and bunkering infrastructure, as well as in the fleet itself.

8 The GFS needs to address well-to-wake (WtW) emissions of fuels and include all relevant GHGs, building on the Life Cycle Assessment (LCA) approach. The fuels currently used by shipping create most emissions in the combustion phase. New fuels like hydrogen and fuels derived from it have zero or significantly lower GHG emissions during combustion, but could be produced with highly-emitting and/or energy-inefficient processes. A GFS with a WtW approach supports actions by parties to the Paris Agreement to meet their Nationally Determined Contributions.

9 By assessing the fuels on their WtW performance, a level playing field is created by accounting for GHG emissions at each step of the fuel lifecycle. This approach facilitates objective comparisons. For example, e-methanol with negative GHG emissions in the production phase and positive emissions in the combustion phase could be compared on

equal footing with hydrogen fuel with no GHG emissions in the combustion phase but possibly substantial GHG emissions from its production.

10 During discussion at ISWG-GHG 10, some delegations pointed to similarities between CII and the GFS. The EU underlines that the CII and GFS address measure and set requirements on different aspects of decarbonisation, which makes them complementary and not substitutes or alternatives. The CII sets requirements on emissions per capacity-mile (gCO₂ per dwt-mile or per gt-mile) while the suggested GFS would set requirement on emissions per energy (CO₂e per MJ). Hence, the GFS would not require any correction factors to account for fuel used at zero distance or transport work, e.g. for cargo maintenance and handling or specific ship operations.

11 The CII as a short-term measure aims to reduce the carbon intensity of shipping activities, mainly by incentivising energy efficiency improvements through a variety of technical and operational measures. Thus, CII will contribute to reducing fuel consumption and the costs associated with the fuel transition. The incentive provided by the CII is, however, not sufficient to kick-start the fuel transition by fostering a sustained demand for low- and zero-GHG fuels. Conversely, the GFS, provides a predictable phase-in of such fuels while remaining technologically neutral, and it does so by requiring the reduction of the GHG intensity of fuels and thus ensuring a timely start of the fuel transition.

High-level description of the GFS

General

12 The GFS is a goal-based technical measure aimed at reducing the GHG intensity of fuels. The standard can be met by different fuel types and blends and the GFS does not prescribe or favour the use of specific fuels.

13 Any suggested mechanisms for mid- and long-term measures need to take on board the ambitions for emissions reduction to be agreed in the revised IMO GHG Strategy. The GFS is a technical measure that can be adjusted to take on board forthcoming decisions on these two elements.

14 The GFS would require all ships above a certain size limit, namely 400 GT or 5000 GT, to use fuels (or other energy sources) which have a well-to-wake GHG intensity at or below a certain limit value, either continuously or on average over a compliance period. The standard is expressed in the mass of GHG emissions per unit of energy used on-board ship, e.g. g CO₂e/MJ. Thus, the GFS is a goal-based and fuel technology neutral measure. The only limit it would set is on the average Well-to-Wake GHG intensity of the fuel and energy used on-board ships on a yearly basis.

15 The GFS would be curbed over time, thus ensuring a gradual and predictable phase-in of low- and zero-GHG fuels compatible with a trajectory towards the emission reduction level of ambition for 2050. It should be noted that the exact stringency of GFS and the corresponding reduction trajectory would in any case be driven by the goals of the IMO GHG Strategy. Without pre-empting the outcome of its forthcoming revision and by way of illustration, Table 1 shows two possible trajectories determined by the choice of the 2050 target. The first, called 'high ambition', corresponds to a phase-out of GHG emissions in maritime fuels by 2050 and starts with a limited reduction in 2025, followed by a gradual increase of the reduction rate afterwards. The second trajectory represents the current minimum ambition of the Initial Strategy and results in a reduction of GHG emissions of at least 50% by 2050 relative to 2008.

Table 1 Illustrative example of GHG intensity pathways (fuel GHG intensity relative to 2008)

	High ambition	Current minimum ambition of the Initial Strategy
2020	Current value	Current value
2025	95%	95%
2030	85%	85%
2035	70%	75%
2040	50%	65%
2045	20%	50%
2050	0%*	35%**

Note:

- * the definition of the 2050 target should take into account emissions during combustion, as well as the LCA guidelines and will be subject to further discussions in the framework of the revision of the IMO GHG Strategy.
- ** the BAU scenarios of the Fourth IMO GHG Study project an increase in emissions in 2050 of up to 33% over 2008 values. In order to achieve a reduction of *at least* 50%, the GHG intensity needs to be reduced to at most 35% of the 2008 value.

16 The standard would provide long-term certainty to investors in fuel production and bunkering infrastructure and to the shipping sector in that it would ensure a growing demand for low- and zero-GHG fuels. It also would provide more transparency and certainty to shipowners for their long-term investments in the right retrofits and fleet renewals. Therefore, a gradual strengthening of the standard should be developed in the regulation. As highlighted above, the GHG intensity limit value should be in line with the level of ambition of the IMO revised Strategy.

17 The GFS would not impose a cap on shipping activity. By regulating a decrease of the GHG intensity of fuels over time, it would contribute to ensuring that the Levels of Ambition of the IMO Strategy are met. While emissions may fluctuate in the short-term in response to business cycles or other causes, the long-term reduction of the GHG-intensity of fuels ensures that emissions decline rapidly as called for in the IMO Strategy.

Implementation and enforcement aspects

18 The legal framework for the GFS would be MARPOL Annex VI, in which the GFS would be a new Regulation, but would also be built on existing instruments, including the Bunker Delivery Note (BDN), the Fuel Oil Data Collection System (DCS), among others. The EU suggests that the BDN requirement of Regulation 18 would need to be amended to include information on the Well-to-Tank GHG intensity of the fuel bunkered based on the LCA Guidelines. The DCS in regulation 27 and appendix IX would need to be amended to require ships to report the GHG intensity of the fuels and other energy sources used annually, in addition to the quantity of different fuels. In order to guarantee the effectiveness of the measure and the level playing field, specific provisions would be needed to ensure that the DCS reporting and verification system is robust enough for this new purpose. The GFS is also linked to the LCA Guidelines, which are currently being developed. Finally, the Ship Energy Efficiency Management Plan (SEEMP) should be revised to include the management of the GHG intensity during the GFS compliance cycle.

19 Ships would demonstrate compliance with the GFS on an individual basis by proving to their Administration that the fuels they have used during a compliance period (in principle over a calendar year, i.e the same reporting period as for IMO DCS), on average, meet the applicable limit value. In that case, the Administration would issue a Document of Compliance, which should be retained on board the ship.

20 In a transitional period, not all ships may be capable to sail on low- and zero-GHG fuels and fuel availability may be unevenly distributed across the globe. The EU therefore concurs that flexibility mechanisms would be appropriate. This submission presents two flexibility mechanisms for consideration by the Group. Neither mechanism would undermine the robust enforcement regime or the fuel transition. Both mechanisms would be accessible to all ships, regardless of Flag, and both mechanisms would allow Administrations to establish unequivocally whether a ship complies with the GFS or not. The two flexibility mechanisms could also co-exist, since they would address two different issues: the lack of incentives for over-compliance and the impossibility to remedy a situation of non-compliance once it has occurred.

21 The two flexibility mechanisms are presented for consideration as follows:

.1 a surplus reward:

This mechanism rewards overachievers with surplus units that they can make use of in the following year or transfer to non-compliant ships. Non-compliant ships would then have a choice to acquire surplus units from another ship in order to avoid non-compliance;

.2 a remedial GHG compliance action.

To avoid non-compliance, ships can have the option to pay a defined GHG contribution to an IMO GHG Fund. In order to stimulate actions in accordance with the GFS, the GHG contribution should be significantly higher than the cost gap between low- and zero-GHG fuels meeting the GHG intensity standard and conventional fuels.

22 It should be noted that the default compliance option in the GFS is to meet its technical requirements. The use of any of the flexibility mechanism listed above should not provide any competitive advantages compared to the default option. Both systems are explained in more detail in Annex III.

Obligations on the ship

23 Under a GFS, ships would have the following obligations:

- .1 Monitor the amount of fuels consumed together with their GHG intensity. When purchasing fuels, they should take into account the GHG intensity with a view to meeting the applicable limit value for the compliance period.
- .2 At the end of each compliance period, calculate the average GHG intensity of the fuels and energy sources used on board, using information supplied to them by fuel suppliers in the Bunker Delivery Note.
- .3 Report the average GHG intensity to the Administration; this would be part of the Data Collection System.
- .4 in case the fuel and energy sources of a ship do not meet the applicable limit value, take action according to the possibilities provided by the adopted flexibility mechanism.

Enforcement provisions

24 A requirement for a ship to meet a specific GHG Fuel Standard would mean that the ship would have to use a more expensive fuel compared to a conventional fuel oil.⁸ As the standard would requiring the use of low- and zero-GHG fuels is strengthened at a pace which is likely to be faster than the expected production cost reductions of such fuels, the cost gap between conventional fuel oil and GFS-compliant fuel options would expand. Effective enforcement measures would therefore be required to ensure that there would not be an increasing economic incentive for non-compliance.

25 A similar situation arose when the global sulphur cap was reduced to 0.50% m/m in 2020. To assist the global implementation of the sulphur cap and to maintain a level playing field, IMO adopted several measures to strengthen the enforcement. Such measures are the prohibition on the carriage of non-compliant fuel oil, regulations for in-use and onboard fuel oil sampling and testing, requirements for a designated sampling point for fuel oil, guidelines for the consistent implementation of the sulphur limit, and guidance on the development of a ship implementation plan. Many of these measures are used during port state controls today and have been important elements in ensuring a successful implementation.

26 In the view of the EU, various measures to ensure an effective enforcement scheme and a consistent implementation of the GHG Fuel Standard would need to be developed and there could be some lessons learned from the work on the implementation of the sulphur cap that could be applied. Annex II to this proposal therefore includes an indicative list of guidelines that should be developed to further support the effective implementation and enforcement of GFS and the corresponding MARPOL amendments. This will be an important element to ensure that the goals of chapter 4 of MARPOL Annex VI are met and that a level playing field is maintained when introducing a new requirement for a GHG fuel standard.

Obligations on Administrations

27 The Administration should document and verify the attained WtW GHG intensity of fuels and energy sources sold for use onboard ships. This would be done based on guidelines to be developed by the Organization.

28 When the average GHG intensity of all fuels used by a ship in a reporting period meets or exceeds the standard, the Administration should issue a Document of Compliance, taking into account the use of flexibility mechanism, record the surplus. When the average GHG intensity of a ship fails to meet the standard, the Administration should issue a Document of Compliance once sufficient amount of surplus units from another ship has been acquired or a contribution to an IMO GHG Fund paid, depending on the choice of the flexibility mechanism(s) (see Annex III).

Port State control

29 The general provisions for port State control (PSC) which are applicable for all annexes to MARPOL are prescribed in Article 5 of the Convention, while regulation 10 of Annex VI contains more detailed provisions for Annex VI. As a general principle, all PSC inspections should verify that the certificates or relevant documents are valid, unless there are clear grounds to conduct a more detailed inspection.

⁸ For an estimate of the cost-prices of low- and zero-carbon fuels, see e.g. CE Delft and Ecorys (2021) Assessment of impacts from accelerating the uptake of sustainable alternative fuels in maritime transport : final report, Brussels: European Commission, Directorate-General for Mobility and Transport, Publications Office, <https://data.europa.eu/doi/10.2832/76878>

30 Under a GFS, in addition to checking for a certificate of compliance, PSC should be able to verify that any penalties or surplus units are registered in a central database. A similar process can be found related to the use of electronic certificates where there should be specific instructions onboard on how to verify the validity of such certificates online (see FAL.5/Circ.39/Rev.2/Corr.1).

31 Similar provisions for additional checks already exist. In the 2021 revised MARPOL Annex VI (Resolution MEPC.328(76)), additional provisions related to PSC under chapter 4 were included in regulation 10. These new provisions include e.g. the possibility for the PSC Officer to inspect whether the Ship Energy Efficiency Management Plan is duly implemented by the ship.

Anticipated effects on fuel producers and suppliers (supply side)

32 The EU anticipate that adoption of a GFS will lead to increased investments in production and delivery of low- and zero-GHG fuels by fuel producers and suppliers. Fuel producers and suppliers that do not offer low- and zero-GHG fuels will see their opportunities to continue supplying fuels to ships shrink. In order to supply fuels to ships, fuel producers will need to monitor and certify the GHG emissions that occur during production and transport of fuels and include this information in the Bunker Delivery Note. They will commence producing low- and zero-GHG fuels in response to a certain and considerable increase in demand for those fuels from ships. Furthermore, the GHG-intensity based approach would also foster the uptake of the best-performing fuel options based on their GHG emissions profiles (lower fuel volumes required to achieve given compliance levels), thus curbing faster the cost differential curve with conventional fuels. This will ensure that the many ongoing initiatives to produce and supply low- and zero-GHG fuels to ships will be able to increase their scale and new initiatives can be developed.

33 To enhance the transparency of the market for low- and zero-GHG fuels, an additional functionality in the GISIS module for MARPOL Annex VI could be included. There fuel suppliers can document their deliveries of low- and zero-GHG fuels to ships on a voluntary basis, making fuel suppliers able to deliver low- and zero-GHG fuels visible and possibly more attractive in the market, while also providing additional transparency on the fuel used by the individual ship.

Anticipated effects on shipping companies (demand side)

34 Shipping companies would have several ways in which their ships can comply with the GFS. First, they can continuously use compliant fuels. Initially, compliant fuels would likely consist of blends of biofuels or synthetic fuels and fossil fuels. Second, they could use low- or zero-GHG fuels in one or several engines or boilers and conventional fuels in other engines. Third, they could use battery-power in addition to the use of conventional fuels. Fourth, they could alternate in time between the use of low- and zero-GHG fuels and conventional fuels, e.g. using over-compliant fuels when perhaps more is available at certain spots and conventional fuels when bunkering in ports where such fuels are not supplied. Fifth, they could procure surplus units from over compliant ships, provided that this flexibility mechanism is chosen.

35 In any case, shipping companies are expected to purchase increasing quantities of low- and zero-GHG fuels, thus incentivising the production and supply of these fuels. At the same time, ships will reduce their GHG footprint over time so that IMO achieves its steps for decarbonising the shipping sector in line with the agreed levels of ambition for emission reduction.

Conclusions

36 The GFS addresses the root cause of GHG emissions by ships, the use of fossil fuels, and promotes the increasing use of low- and zero-GHG fuels. It is a goal-based measure and it provides long-term certainty to shipping companies and fuel producers alike, which is essential for starting and completing the transition towards zero-GHG fuels.

Action requested by the Working Group

37 The Working Group is invited to consider the suggestions for a GFS contained in this submission and consider it as an essential element of a combination of measures aimed at achieving the levels of ambition of the Initial and also of a revised IMO Strategy.

ANNEX I

Draft amendments to MARPOL Annex VI.
(placeholder)

ANNEX II

Suggested Guidelines to be developed by the organization:

- G1: GHG intensity monitoring reporting and verification guideline
- G2: Crediting Surplus and compliance system guideline for the Administration (in case this flexibility mechanism is included in the GFS)
- G3: Guidelines for International Database for creation, registration and cancellation of surplus units (in case this flexibility mechanism is included in the GFS)
- G4: Guidelines to support the use of the remedial GHG compliance action (in the case this option is included in the GFS)
- G5: Guidelines for the consistent implementation of the low GHG Fuel Standard

ANNEX III

Further elaboration on two possible flexibility mechanisms.

Surplus reward

1 This flexibility mechanism entails that ships which have an annual GHG emissions intensity below the standard could apply for validation and registration of surplus units by their Administration. Administrations would issue surplus units to these ships. The number of units would be commensurate with the exceedance of the target and the amount of fuel consumed by the ship. The units could be used by the same ship in the following year or by any other ship that does not meet the target. Therefore, units would need to be transferrable from one ship to another, regardless of flag or ownership of a vessel, and a system would need to be in place to establish the ownership of the units and to prevent double counting.

2 Under this flexible mechanism, non-compliant ships (those that have used fuels with an average GHG intensity above the limit value) could surrender an amount of surplus units, which would be sufficient to make up for the shortfall. After surrendering a sufficient amount of units, ships would receive a Document of Compliance from their Administration.

3 One of the key benefits of such a flexibility system is that it would provide an incentive for using best-performing fuels with respect to their GHG reduction potential even when the standard is only marginally lower than the current GHG intensity of maritime fuels. Because ships receive surplus units for over-compliance, and because the units would be transferrable, they could generate revenue from over-complying with the limit value, which would speed up the uptake of zero emission fuels and deployment of zero carbon shipping. In addition, this scheme would allow for a gradual increase in the GFS stringency without the risk of locking-in fuels with marginally lower GHG intensity, which would be insufficient to ensure a phase out of GHG emissions in line with the Initial Strategy with resulting stranded assets.

Remedial GHG compliance action

4 This flexibility mechanism would allow ships to pay a defined GHG contribution to an IMO GHG Fund. In order to stimulate actions in accordance with the GFS, the GHG contribution should be significantly higher than the cost gap between low and zero GHG fuels meeting the GHG intensity standard and conventional fuels. Once the GHG contribution has been paid, the Administration could issue a certificate of compliance.

5 The GHG contribution would need to be defined based on the gap between the GHG intensity of the fuel actually used and the required standard for a defined period.

6 The benefit of this approach would be that it would ensure a level playing field where the same remedial action applies for each ship independent of the performance of the rest of the fleet of a company, for example for smaller companies that have fewer ships to average out its performance.