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PREVENTION OF AIR POLLUTION FROM SHIPS

Comments on the relationship between the Design and Operational CO₂ Indices

Submitted by Canada

SUMMARY

<i>Executive summary:</i>	Further to the report of the GHG Working Group, this document comments on the relationship between the mandatory design CO ₂ index for new ships and the voluntary operational CO ₂ index
<i>Strategic direction:</i>	7.3
<i>High-level action:</i>	7.3.1
<i>Planned output:</i>	7.3.1.3
<i>Action to be taken:</i>	Paragraph 12
<i>Related document:</i>	MEPC 58/4

Introduction

1 This document is submitted in accordance with paragraph 4.10.5 of the Guidelines on the organization and method of work of the Committees and their subsidiary bodies (MSC-MEPC.1/Circ.2) and comments on document MEPC 58/4.

2 At its first intersessional meeting in Oslo, Norway in June 2008, the Working Group on Greenhouse Gases considered two indices that measure a ship's CO₂ emissions efficiency: a mandatory design CO₂ index for new ships and an operational CO₂ index for all ships. Both indices provide a means to demonstrate a ship's CO₂ emissions efficiency in terms of quantities of CO₂ emitted per unit of transport work.

3 The Working Group developed a formula for a mandatory design CO₂ index for new ships, comprising a calculated attained index that is to be compared to a required index level (from each of the 67 ship categories) which is to be determined at a later date by MEPC. This design index is a predictive assessment of CO₂ efficiency and is calculated from design parameters such as engine power, specific engine fuel consumption, capacity, and the intended reference speed of a ship. It is to be implemented initially in a trial period as Guidelines with the

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view to adjust it based on experience gained, if required. At the end of this trial period, it is to be implemented as legally binding measure.

4 The Working Group also agreed to a draft operational index to be presented at MEPC 58, which is to be calculated from a ship's actual fuel consumption, cargo or persons carried, and distance travelled. The Working Group agreed that this index would be a voluntary measure that all ships could choose to use as a management tool to demonstrate emissions efficiency.

5 Although the means of calculating and the application of the design and operational indices are different, Canada is of the view that both indices play a key role in assisting ships to both reduce their GHG emissions and demonstrate their CO₂ emissions efficiency.

Relationship between the mandatory design CO₂ index for new ships and the voluntary operational CO₂ index

6 Each index assesses different aspects of a ship that contribute to its emissions efficiency. The design index is a measure of the ship itself, the operational index is a measure of a ship's practices. At this stage, there is general consensus that the design index would be mandatory for new ships and that the operational index is voluntary.

7 Canada is of the view that there are opportunities to apply the design index to existing ships, on a voluntarily basis, by shipowners who wish to demonstrate the CO₂ emissions efficiency of their ships – particularly if shipping clients are interested in CO₂ emissions efficiency throughout their supply chains. This index could be calculated from existing design information for ships currently in service or when ships undergo refits.

8 As the operational index uses fuel consumption and distance data in its calculations, it integrates the effects of the myriad of best practices that can be employed to reduce CO₂ emissions and increase fuel efficiency. This provides an overall assessment of the efficiency of a ship's operations and its crew. It too can be used to demonstrate this for clients interested in supply chain efficiency.

9 Regarding the mandatory nature of the design index, one of the consequences considered for a ship whose attained index does not meet its required index was that it would not be approved for service by an Administration. However, an alternative for such a ship could be to use the operational index to meet the balance of its required emissions reductions target.

10 Additionally, as discussions continue on the need for reductions in GHG emissions from the shipping industry, the design index for new ships alone may not be sufficient to demonstrate the industry's goal of improving its overall fuel efficiency and consequent emissions reductions. The mandatory combined use of both the design and operational indices may need to be considered to ensure that the industry meets the required ship efficiency targets and is able to contribute to a global reduction of GHG emissions.

11 Both of these proposed measures would broaden the application and use of the indices, as well as increase the flexibility with which the shipping industry could meet their emissions targets. The scenarios under which such an applications would be appropriate (e.g., as an interim measure) remain subject to discussion.

Action requested of the Committee

12 The Committee is invited to take note of this information and take action as appropriate.