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COMMITTEE  
73rd session  
Agenda item 5

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## **AIR POLLUTION AND ENERGY EFFICIENCY**

### **The importance of the EEDI and the role that reference lines play in maintaining the integrity of the IMO EEDI regulatory system**

**Submitted by ICS, BIMCO, CLIA, IPTA and WSC**

#### **SUMMARY**

*Executive summary:* This document briefly outlines the primary purpose in developing IMO's Energy Efficiency Design Index (EEDI) standards and the reference lines that serve as the foundation of the IMO EEDI regulations. The co-sponsors outline problems that arise with raising, lowering or tilting historical reference lines. This document stresses that maintaining reference lines is necessary to enable Member States, industry and other parties to monitor and measure progress of the fleet over time. This document further highlights that the value and integrity of IMO's EEDI standards would be seriously compromised if the Committee acts to fundamentally alter EEDI reference lines.

*Strategic direction, if applicable:* 3

*Output:* 3.6

*Action to be taken:* Paragraph 11

*Related document:* Resolution MEPC.231(65)

#### **Background**

1 Development and discussion of the Energy Efficiency Design Index (EEDI) began at IMO in 2007 as part of a concerted effort within IMO to address greenhouse gas emissions within the sector and to provide an explicit mechanism that would facilitate the design and construction of progressively more energy efficient ships over time. The EEDI standards are intended to motivate and require progressively more stringent design efficiency standards for the fleet to encourage and stimulate innovation and improved energy efficiency across the different ship types.

2 A critical step to IMO's effort to develop the EEDI standards was the development and agreement on historical reference lines for each of the regulated ship types. These reference lines were carefully developed through extensive analysis of the fleet over a full decade (1999-2008). The resulting regression lines were calculated and adopted by the Committee to reflect what the design efficiency of the fleet and its respective ship types were at the outset of the EEDI development effort.

3 The IMO EEDI reference lines reflect what estimated energy efficiency values were across the fleet during the period that preceded adoption of the standards. This reference point enables Member States, industry and other interested stakeholders to see how the fleet has evolved over time. Most importantly, these reference lines allow Member States, industry and other parties to measure progress over time from a fixed reference point that has not been subsequently raised, lowered, tilted or otherwise changed.

## Discussion

4 With the introduction of the EEDI standards in 2013, we now have an initial base of experience with the first standards adopted by the Committee in 2011. That experience has revealed significant variation in changes that have taken place in the fleet and among different size segments over this time period. We have also learned that some ship types and size segments face unique challenges associated with design norms that have evolved over multiple decades to move the most cargo in a manner that is economically efficient when considering the commercial realities of a given trade. As the Committee considers these trends, it will benefit from an improvement in the amount of verified data and other relevant information (see MEPC 73/5/5), but it will also have to carefully consider how to adjust and differentiate standards by ship type and by specific size segments where appropriate.

5 As the Committee considers what modifications may be appropriate for phase 3 and what standards should be defined for phase 4 it should expand the set of verified data available, carefully consider where the data supports specific changes, and determine how to differentiate standards among size segments where careful analysis supports differentiation by size within a given ship type.

6 In recent years the Committee has seen different proposals to modify the reference line of one ship type or another, and in the case of ro-ro cargo and ro-ro passenger ships the Committee took action to address problems unique to the EEDI formula adopted for these ships. Some of the suggestions that seek to change reference lines are intended to raise the reference line in one case, lower the reference line in another case, redraw or tilt the respective reference lines. These suggestions may result in instant "resolution" of a particular problem, but altering the EEDI reference lines introduces a set of fundamental problems that threaten to undermine the value of the EEDI as a regulatory tool and the credibility of the EEDI standards themselves.

7 Fundamental changes to the historical IMO EEDI reference lines introduce a series of serious problems:

- .1 a basic reference and understanding of where the fleet was between 1999 and 2008 is effectively lost;
- .2 Member States, industry and other stakeholders can no longer measure progress over time because the nature and quantitative values in the reference line would be changed;

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- .3 modifying reference lines as a means to address compliance levels is inherently outcome driven and undermines analytical consistency;
  - .4 solidifying the precedent of making fundamental changes to ship reference lines will establish the practice as a convenient and easy mechanism to be employed whenever a given issue (positive or negative) is encountered; and
  - .5 the intrinsic value and credibility of the EEDI as a regulatory tool would be undermined.

8 Recognizing the serious problems outlined above, the co-sponsors encourage the Committee to not approve fundamental changes to the EEDI reference lines that raise, lower or tilt the original reference lines.

9 Modification of reference line values should be limited to those cases where the formulation of the 1999-2008 reference line may have been calculated incorrectly due to a data issue or technical matter not accounted for at the time of constructing the reference line. In such instances, the Committee should invite proposals supported by data so that careful deliberation of any proposed modification can be carefully considered. If future EEDI standards differentiate requirements for certain size segments, the historical reference line for the respective size segment can be replicated as a separate reference line. Respecting this approach will ensure that reference lines representing the fleet as it existed from 1999-2008 will be maintained, thereby ensuring the ability of governments, industry and other parties to monitor and measure progress over time.

10 In cases where the required EEDI reduction rates may be impractical, consideration could be given to amending these reduction rates or to other technical measures. Amending EEDI reference lines is not an appropriate solution to address concerns with respect to the reduction rate since the reference line provides an important benchmark to compare and assess fleet improvements over time. Issues related to EEDI reduction rates are a separate matter which should not in themselves affect the validity of the reference lines.

#### **Action requested of the Committee**

11 The Committee is invited to consider the comments contained in this document and to take action as appropriate.

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