

MARINE ENVIRONMENT PROTECTION
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REDUCTION OF GHG EMISSIONS FROM SHIPS

The impact of short voyages and waiting time on CII rating

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SUMMARY

Executive summary: This document comments on the scope of the CII G5 guidelines adopted at MEPC 78, and provides further justification for the addition of correction factors for short voyages and port waiting time. As articulated within the previous document ISWG-GHG 12/2/3, the aforementioned correction factors are two of several key elements that should be incorporated into the CII system.

*Strategic direction,
if applicable:* 3

Output: 3.2

Action to be taken: Paragraph 10

Related documents: MEPC 78/7/11, MEPC 78/WP.1/Rev.1; ISWG-GHG 12/2/1, ISWG-GHG 12/2/3, ISWG-GHG 12/2/6 and resolution MEPC.355(78)

Introduction

1 This document reports relevant information to the Committee ahead of the review of the CII regulations and guidelines to be completed at the latest by 1 January 2026.

Background

2 MEPC 76 adopted amendments to MARPOL Annex VI to incorporate the CII rating mechanism. To further consider proposals for CII correction factors and voyage adjustments, otherwise known as the 2022 *Interim guidelines on correction factors and voyage adjustments for CII calculations (CII Guidelines, G5)* (resolution MEPC.355(78)), the Committee established a Correspondence Group which presented its report in document MEPC 78/7/11 (China et al.). Within their report the coordinators rejected 13 of the 23 proposed correction factors and voyage adjustments. Many of these related to factors beyond the control of the ship/shipowner (e.g. waiting time, short voyages, adverse weather, etc.). Through submissions to ISWG-GHG-12 and MEPC 78, industry raised concerns relating to these rejected elements of the CII system. Nevertheless, MEPC 78 accepted the recommendations of the Correspondence Group's report in full, although the G5 Guidelines remain entitled "interim". Within paragraph 7.81 of

the report contained in document MEPC 78/WP.1/Rev.1, the committee invited interested Member States and international organizations to collect relevant data in the early years of implementation of the CII rating system and to report relevant information to the Committee ahead of the review of the CII regulations and guidelines to be completed at the latest by 1 January 2026.

Opportunities for CII system improvement

3 The document referenced in the annex to this document considers an existing fleet of tankers, including nine exact sister ships (designated tankers 1 to 9), and five near sister ships (designated tankers 10 to 14). All the ships are operated by the same organization, and all were built at the same Korean shipyard between 2007 and 2011. Hence, the principal difference between the ships is the routes they operate on. The document assumes the same trading patterns will be followed in 2023, and on that basis calculates the CII rating that would be assigned to each for 2023. As may be seen from figure 1, despite tankers 1 to 9 being identical and tankers 10 to 14 being close sisters, there is very significant variation in the CII ratings.

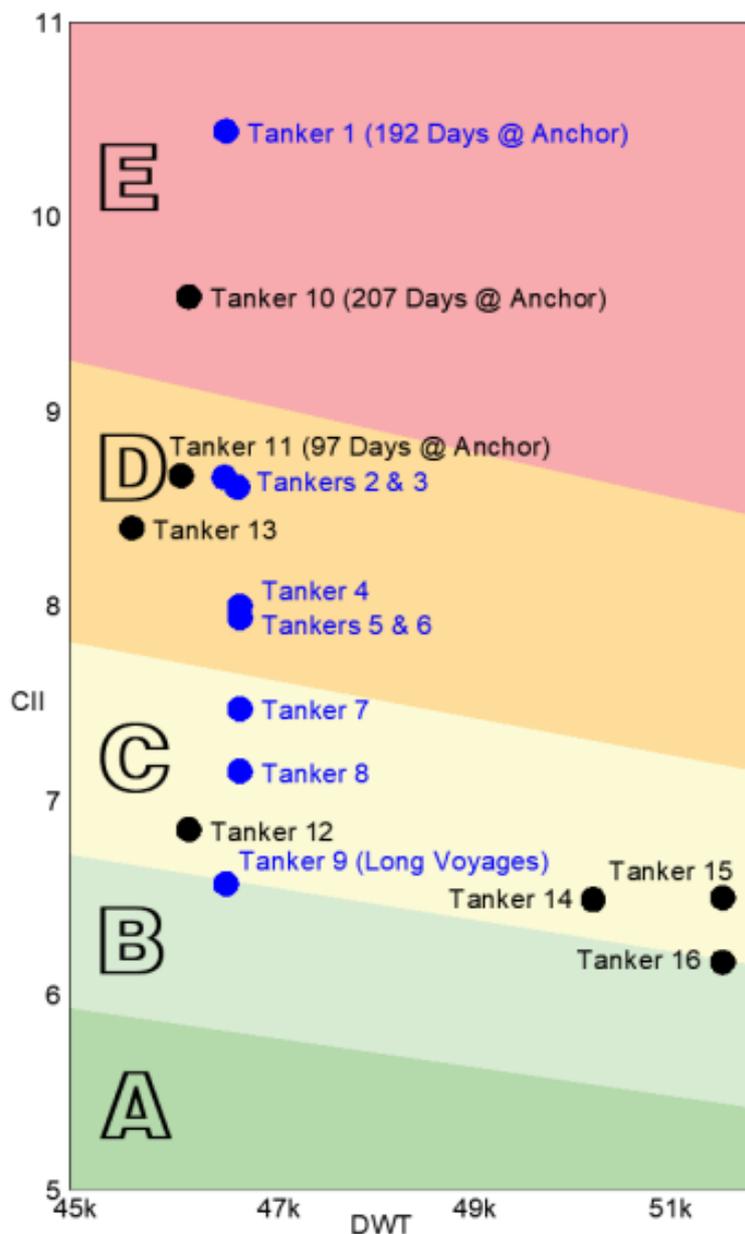


Figure 1: CII Scores for OSG MR Tankers (2020 data, 2023 grades)

4 Considering two extreme cases, the document referenced in the annex to this document details the reasons for the different ratings:

"Tanker 1 achieved a poor CII score in 2020 because she was on the spot market and spent more than half of the year (192 days) at anchor between charters, waiting for her next job. She was a good performer during the 173 days that she was actively moving cargo. But when a ship remains idle for extended periods of time at anchor or in port, running her generators to keep engine fluid temperatures maintained for a quick start-up, and to power hotel loads in the accommodations house for proper care of the crew, the CII score goes to infinity. With no accumulation of miles transited, the denominator of the equation is zero. This has a significant negative impact on the CII score and resulting grade."

"At the other end of the spectrum, the sister vessel Tanker 9 achieved a grade of "B" despite her 15-year-old design. Examining her operational profile that year, she kept very busy making long voyages from Texas to Philadelphia. Long voyages are highly favourable in the CII calculation because they result in fewer voyages in a given year, and therefore less time in port where the ship emits CO₂ from the generators but does not accumulate miles run in the denominator of the CII equation".

5 Figure 2 from the document referenced in the annex to this document further illustrates the very different trading patterns for the two extreme rated sister ships.

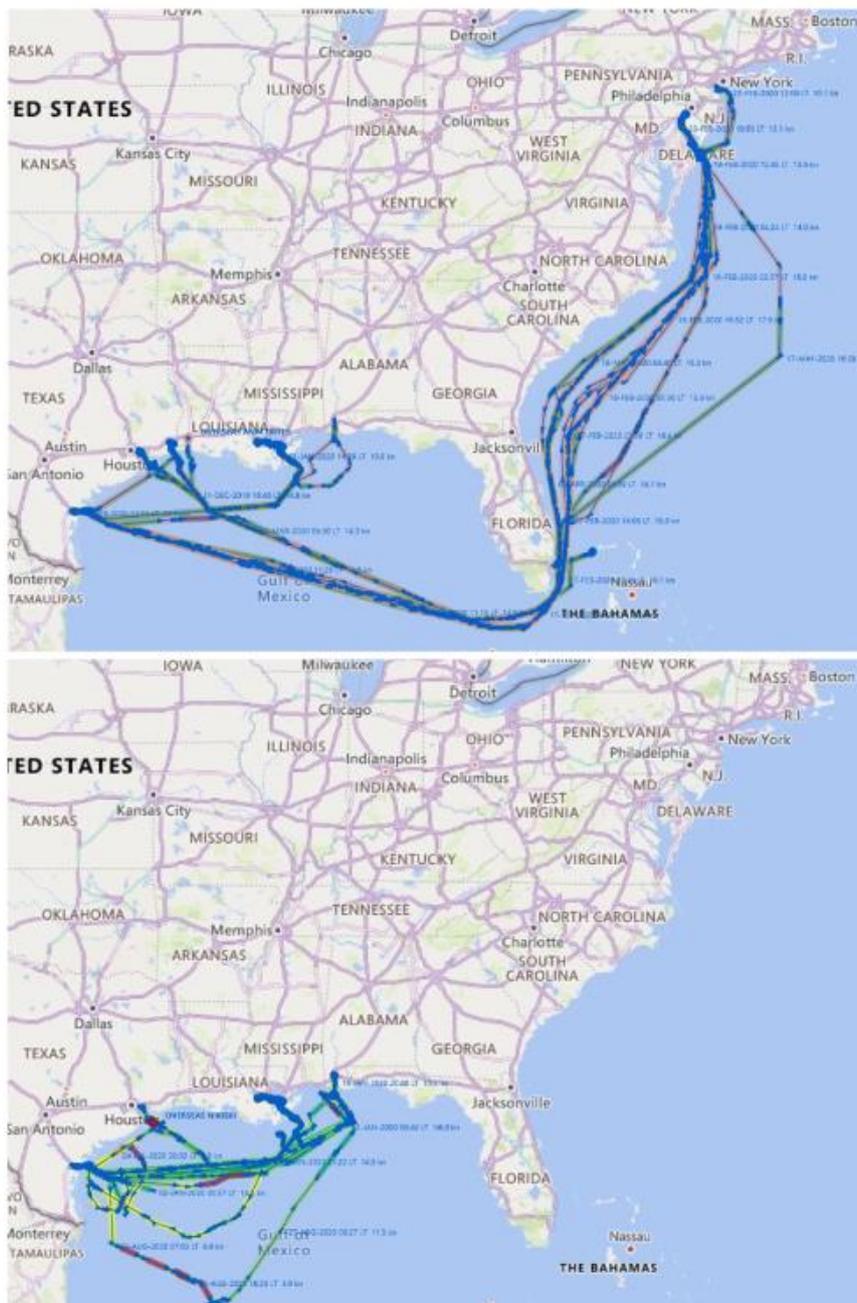


Figure 2: Voyages in 2020, Tanker 9 (top) and Tanker 1 (bottom).

6 Because this study has compared sister ships which are operated by the same company, it is apparent that the significant differences in ratings are not attributable to the ship design or their efficiency of operation. As such, the study highlights some significant factors that affect the CII rating, for which no correction or adjustment is afforded, and over which the shipowner/operator has no control, i.e. the route length (which is determined by the available charters) and waiting time at anchor (resulting either from quiet periods awaiting charter or imposed by ports experiencing overloads in demand).

7 If ships are penalized for undertaking short sea passages, there is a risk of a modal switch to road transport. On a per tonne/mile basis shipping is a more fuel-efficient mode, and hence switching would result in increased CO₂ emissions. Switching would also increase costs to coastal communities that are reliant on shipping services. Such perverse outcomes are not the objective of the CII system and should be avoided.

8 Although correction factors for port waiting time and short voyages were considered by the Correspondence Group on Carbon Intensity Reduction, both were rejected. The document referenced in the annex to this document further highlights the importance of adopting these key elements, if a rational, fair and robust CII system is to be achieved.

9 This matter affects all segments of the shipping industry. For example, a recent analysis of 700 container ships identified that as a result of port waiting time:

- .1 thirty-four ships (8.6% of the sample) would be derated from D to E;
- .2 twenty-seven ships would be derated from C to D;
- .3 seventeen ships would be derated from B to C; and
- .4 eight ships would be derated from A to B.

Further, of the 700 ships considered, the average time at berth in a calendar year was 87.1 days, however the maximum was 239.8 days and 258 ships spent over 100 days at berth. Ship operators cannot correct for the consequential effect on CII ratings by improving other aspects of ship operation.

Action requested of the Committee

10 In advance of the review of the CII regulations and guidelines, the Committee is invited to consider the report referenced in the annex to this document, and to recognize the key importance of adopting CII correction factors for short voyages and port waiting time.

ANNEX

Please refer to the Blue Sky Maritime Coalition white paper at the following location:

https://www.bluesky-maritime.org/_files/ugd/8ed502_28f23b0c907f4501a5ad03348a163aa0.pdf

A Perspective on IMO Efficiency Measures: Opportunities for Improvement



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Prepared for:

