Carbon Intensity Indicator (CII) Correction Figures

as component of

Daily Report 3

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User Manual

Carbon Intensity Indicator (CII) Correction Figures

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References:

RESOLUTION MEPC.355(78) (adopted on 10 June 2022) 2022 INTERIM GUIDELINES ON CORRECTION FACTORS AND VOYAGE ADJUSTMENTS FOR CII CALCULATIONS (CII GUIDELINES, G5)

1 Introduction

This document explains how to fill out the CII correction data in the arrival and departure reports.

The data discussed here address the corrections factors and voyage adjustments which may be applied to the calculation of the attained annual operational carbon intensity indicator (CII) of regulation 28 of MARPOL Annex VI, and as defined by the 2022 Guidelines on operational carbon intensity indicators and the calculation methods (CII Guidelines, G1) (resolution MEPC.352 (78)).

A voyage adjustment deducts relevant fuel consumption, as well as the associated distance travelled from the calculation of attained CII for a defined period subject to certain threshold conditions being met.

A correction factor means a factor in the numerator or denominator of the CII formula which adjusts the calculation of the attained CII.

2 How to enter the data in Daily Report

The relevant data have to be entered in the arrival and departure report. Open an arrival or departure report in the Daily Report program and look for the page related to the Carbon Intensity Indicator (CII).

Note that for both arrival and departure reports, the data fields are nearly the same.

For arrivals, please enter the values for the time period between “Standby Engine” (SBE) (previous port) and “Finished with Engine” (FWE).

For departure, please enter the values in port from “Finished with Engine” (FWE) and “Standby Engine” (SBE).

2.1 SFOC and cargo-related fuel consumption

Fuel consumed for production of electrical power during the calendar year may be deducted from the calculation of the attained CII for the following purposes:

- Electrical consumption of refrigerated containers (on all ships where they are carried)
- Electrical consumption of cargo cooling/reliquefaction systems on gas carriers and LNG Carriers.
- Electrical consumption of discharge pumps on tankers.

2.1.1 Specific Fuel Oil Consumption (SFOC)

$SFOC$ represents the specific fuel oil consumption in g/kWh associated with the relevant source of electrical power as per the EEDI/EEXI Technical File or NOx Technical File.

The SFOC figure is required to calculate the fuel consumption from the electrical power consumption.

In the case of ships without a Technical File, a default value of **175 g/kWh for 2 stroke engines** and **200 g/kWh for 4 stroke engines** may be applied.

2.2 Refrigerated Containers at Sea/ in port

For ships carrying refrigerated containers, the data have to be entered as follows:

If you have a reefer monitoring system:

For ships that have the ability to monitor reefer electrical consumption, select

- **“Calculated or measured”**: “Measured”
- Enter the kWh meter counter for the reefer energy. See field “**Total Reefer Energy cons.**

since departure".

Otherwise:

For ships that do not have the ability to monitor reefer electrical consumption, the ship may calculate reefer kWh consumption by entering the number of containers carried at arrival and departure.

- **"Calculated or measured":** "Calculated (2.75 kWh)"
- **"Number of containers at arrival/departure"** is the number of reefer containers as recorded in the BAPLIE file.
  "Days at sea" represents the number of days at sea.
- **"Days in port"** represents the number of days in port.

2.3 Cargo cooling systems on gas carriers and LNG carriers

For gas carriers and LNG carriers with electrical cargo cooling systems or reliquefaction plants, the correction factor may be applied as follows:

"Cargo cooling at Sea/in Port" represents the estimated fuel consumption attributed to cooling of gas cargoes. Enter the Cooling kWh as measured on the ship by the kWh meter counter on the ship.

2.4 Cargo discharge pumps consumption

Fuel consumed by standalone engine driven cargo pumps during discharge operations on tankers may be deducted from the calculation of the attained CII.

"Discharge pumps with own generators:" For tankers with discharge pumps powered by their own generator, the amount of fuel used for the period that the discharge pumps are in operation should be measured by accepted means, e.g. tank soundings, flow meters.

2.5 Cargo heating and discharge pumps on tankers

Fuel consumed by the oil-fired boiler during the calendar year may be deducted from the calculation of the attained CII, for the purposes of cargo heating and cargo discharge on tankers.

For tankers with fuel fired boilers used for cargo heating or steam driven cargo pumps, the following correction factor may be applied for the period that the cargo heating or discharge pumps are in operation:

In the case of boilers used for cargo heating, the amount of fuel used by the boiler should be measured by accepted means, e.g. tank soundings, flow meters.

For tankers which use steam driven cargo pumps, the amount of fuel used by the boiler should be measured by accepted means, e.g. tank soundings, flow meters.

Some amount of fuel consumed by the boiler during cargo heating or discharge operations may be attributed to other purposes, e.g. calorifiers. It is not necessary to split these out from reporting.

Please note:
If the form does not contain a dedicated input field for cargo heating add the fuel consumption for cargo heating to the field "Discharge pumps with own generators:".

2.6 Voyage adjustments

Note that there are only a few reasons why voyage adjustments may apply.

Fuel consumed in voyage periods during the calendar year may be deducted from the calculation of the attained CII in case the ship encounters one of the following situations:

- Scenarios specified in regulation 3.1 of MARPOL Annex VI, which may endanger safe navigation of a ship; and
- Sailing in ice conditions, which means sailing of an ice-classed ship in a sea area within the ice edge.

Please enter the following values if a voyage adjustment period applies:

“**Reason**”: Please pick the applicable reason and add a remark if necessary

“**Start/End of voyage adjustment**”: These are the begin and end of the voyage adjustment period.

“**ROBs at start/end**”: Enter the ROBs of the available fuels at the begin and end of the voyage adjustment period.

“**Position as start/end**”: The geographic position at begin and end of the voyage adjustment period.

“**Distance sailed**”: Enter the distance sailed during the period.