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KR
KOREAN REGISTER
**TECHNICAL
INFORMATION**

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Subject : Implementation of IMO fuel oil consumption data collection system (DCS) (from 2018.03.01.)

IMO adopted the amendments to MARPOL Annex VI to introduce IMO fuel oil consumption data collection system at MEPC 70th session held from 24 to 28 October and these will enter into force on 1 March 2018, with the first reporting period being for the 2019 calendar year.

IMO agreed that the consideration of enhancing the operational energy efficiency of the international shipping should progress and follow a three-step approach, namely data collection, analysis and decision-making on what further measures, if any are required. In this respect, as the first-step, MEPC 70 adopted amendments to MARPOL Annex VI, Chapter 4 requiring mandatory fuel oil consumption data collection system (DCS) of ships and 2016 guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP).

This technical information is to inform you of summary of the IMO data collection system and amendments of SEEMP guidelines as follows.

1. Summary of the IMO data collection system (DCS)

- 1) On or before 31 December 2018, each ship of 5,000 GT and above shall revise the SEEMP to include contents related to the IMO data collection system taking into consideration amendments of the SEEMP guidelines (PART II) and request the Administration or any organization duly authorized by it (hereinafter referred to as 'Administration') for verification or assessment. The revised SEEMP shall include a description of the methodology that will be used to collect the required data (*see below Appendix IX of MARPOL Annex VI for references*) and the processes that will be used to report the data to the ship's Administration. In this regard, the Administration shall provide Confirmation of compliance to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period.
- 2) From calendar year 2019, each ship of 5,000 GT and above shall collect the data in accordance with methodology specified in the SEEMP for each subsequent calendar year, and report aggregated data to its Administration for verification, using a standardized data reporting format in the SEEMP guidelines within three months after the end of each calendar year.

[Appendix IX]

Information to be submitted to the IMO Ship Fuel Oil Consumption Database

- Identity of the ship
 - ✓ IMO number
 - Period of calendar year for which the data is submitted
 - ✓ Start date (dd/mm/yyyy)
 - ✓ End date (dd/mm/yyyy)
 - Technical characteristics of the ship
 - ✓ Ship type
 - ✓ Gross tonnage (GT)
 - ✓ Net tonnage (NT)
 - ✓ Deadweight tonnage (DWT)
 - ✓ Power output (rated power) of main and auxiliary reciprocating internal combustion engines over 130 kW
 - ✓ Energy Efficiency Design Index (EEDI) (if applicable)
 - ✓ Ice class (if applicable)
 - Fuel oil consumption, by fuel oil type in metric tonnes and methods used for collection fuel oil consumption data
 - Distance travelled
 - Hours underway
- 3) In the event of change from one Administration to another and/or from one company to another, the ship shall on the day of completion of the change or as close as practical thereto report to its (losing) Administration for verification, the aggregated data for the period of the calendar year corresponding to the Administration and/or Company.
- 4) After verification of the data reported by ship, the Administration shall issue a Statement of Compliance (SoC) no later than five months from the beginning of the calendar year. And then the Administration shall transfer verified data to the IMO Ship Fuel Consumption Database not later than one month after issuance of SoC.
- 5) The IMO Ship Fuel Oil Consumption Database shall be undertaken and managed by the IMO Secretary-General to maintain an anonymized database such that identification of a specific ship will not be possible. Parties will only have access to the anonymized data strictly for their analysis and consideration.

2. Summary of the amendments of the SEEMP guidelines (Part II)

- 1) The Part II of the SEEMP guidelines provides guidance for developing a ship-specific method to collect, aggregate, and report ship data with regard to annual fuel oil consumption, distance travelled, hours underway and other data required by Appendix IX of MARPOL Annex VI to be reported to the Administration.

2) Fuel oil consumption should include all the fuel consumed on board including but not limited to the fuel consumed by the main engines, auxiliary engines, gas turbines, boilers and inert gas generator, for each type of fuel consumed, regardless of whether a ship is at berth or not at berth. Methods for collecting data on annual fuel oil consumption in metric tonnes include

- Method using bunker delivery notes (BDNs)
 - ✓ the BDN fuel quantities would be used to determine the annual total mass of fuel oil consumption, plus the amount of fuel left over from the last calendar year period and less the amount of fuel carried over to the next calendar year period.
- Method using flow meters
 - ✓ the annual fuel oil consumption may be the sum of daily fuel oil consumption data of all relevant fuel consuming processes on board measured by flow meters.
- Method using bunker fuel tank monitoring on board
 - ✓ the amount of daily fuel oil consumption data measured by tank readings which are carried out by appropriate methods such as automated systems, soundings and dip tapes will be aggregated.

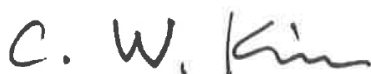
3) The methods to measure distance travelled and hours underway are as follows.

- Distance travelled
 - ✓ the distance travelled while the ship is underway under its own propulsion should be included into the aggregated data of distance travelled.
- Hours underway
 - ✓ the hours underway should be an aggregated duration while the ship is underway under its own propulsion.

3. Additional IMO guidelines to be developed and/or adopted at MEPC 71

- 1) Guidelines for Administration data verification procedures
- 2) Guidelines for the development and management of the IMO Ship Fuel Consumption Database

– The end –



Executive Vice President

Technical Division

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