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Besonderheiten des IMO Data Collection System

Particularity of the IMO Data Collection System

Reasons for implementing a worldwide CO_2 Emission Monitoring for Maritime Transport at the IMO

Political commitment to limit the increase of the global temperature by 2°C,

The UNFCCC (Kyoto Protocol and Paris Agreement) covers also CO_2 Emissions from the transport sector via its UN Bodies (IMO, ICAO),

The increase of maritime transport may double the CO_2 emissions from 2010 to 2050 (IMO Study in Greenhouse Gas Emissions),

The airborne transport, ship transport an other industry sectors in the EU have already implemented an MRV scheme,

International shipping under IMO regulations is not incorporated yet,

The IMO has decided on an initial strategy for the reduction of CO_2 emissions (MEPC.304(72)) with a reduction of 50% in 2050.

Work at the IMO (MEPC) to develop a data collection system (DCS)

Shipboard Energy Efficiency Plan (SEEMP, Part I) is already implemented,

Energy Efficiency Operational Indicator (EEOI) is under development,

Decision has to be taken if the EEOI is mandatory or non mandatory,

As a first step approach the Data Collection System (DCS) has been adopted on the 28.10.2016 with resolution MEPC.278(70).

Corresponding IMO publications

MEPC.282(70):	2016 Guidelines for the development of a Ship Energy Efficiency Management Plan
MEPC.292(71):	Guidelines for the Administration verification of ship fuel oil consumption data
MEPC.293(71):	Guidelines for the development and management of the IMO ship fuel oil consumption database
MEPC.1/Circ.871:	Submission of data to the IMO Data Collection System of fuel oil consumption of ships
MEPC.1/Circ.876:	Sample format for the Confirmation of Compliance, SEEMP Part II

Application of DCS

All ships from 5000 GT on international voyages,

All flags are obliged to attend to the DCS,

Navy ships and state owned ship in no commercial service are exempted,

Focus is only on CO_2 emission (fuel consumption).

Preparatory Work

Before 01.01.2019:

Implementation of DCS procedure (SEEMP Part II),

For further information see also MEPC.282(70) 2016 Guidelines for the development of a ship energy efficiency management plan,

SAMPLE FORMAT FOR CONFIRMATION OF COMPLIANCE

CONFIRMATION OF COMPLIANCE – SEEMP PART II

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

. . . . . .

(full designation of the Party)

by . . . . . .
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship*

Name of ship . . . . . .

Distinctive number or letters. . . . . .

IMO Number† . . . . . .

Port of registry . . . . . .

Gross tonnage. . . . . .

SEEMP part II date of revision, as applicable . . . . . .

THIS IS TO CONFIRM:

Taking into account the *2016 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* adopted by resolution MEPC.282(70), the ship's SEEMP has been developed and complies with regulation 22.2 of Annex VI of the Convention.

Issued at: . . . . . .
(place of issue of Confirmation)

Date (dd/mm/yyyy) . . . . . .
(date of issue)

. . . . . .
(signature of duly authorized official issuing the Confirmation)

(seal or stamp of the authority, as appropriate)

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* Alternatively, the particulars of the ship may be placed horizontally in boxes.

† In accordance with the *IMO Ship Identification Number Scheme*, adopted by the Organization by resolution A.1117(30).

Yearly schedule “Collection and reporting of ship fuel oil consumption data” starting from 01.01.2019

01 January
(start of yearly data collecting)

→

31 December
(end of yearly data collecting)

→

01 April
(yearly fuel oil consumption report sent to the Administration

→

01 June
(Administration issues Statement of Compliance)

→

01 July
(Administration submits the fuel oil consumption report to the IMO)

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, as defined in regulation 2 of this Annex or other (to be stated)
- GT[1]
- NT[2]
- DWT[3]
- Power output (rated power[4]) of main and auxiliary reciprocating internal combustion engines over 130 kW (to be stated in kW)
- EEDI (if applicable)
- Ice class[5]

Fuel oil consumption, by fuel oil type[6] in metric tonnes and methods used for collecting fuel oil consumption data

Distance travelled from berth to berth

Hours not at berth

STANDARDIZED DATA REPORTING FORMAT FOR THE DATA COLLECTION SYSTEM

Method used to measure fuel oil consumption[9]	Fuel oil consumption (t)										Hours underway (h)	Distance Travelled (nm)	Power output (rated power) (kW)[8]		Ice class[7] (if applicable)	EEDI (if applicable)[6] ($gCO_2/t.nm$)	DWT[5]	NT[4]	Gross tonnage[3]	Ship type[2]	IMO number[1]	End date (dd/mm/yyyy)	Start date (dd/mm/yyyy)
	Other(……)	(C_f ;…..)	Ethanol (C_f: 1.913)	Methanol (C_f: 1.375)	LNG (C_f: 2.750)	LPG (Butane) (C_f: 3.030)	LPG (Propane)	HFO (C_f: 3.114)	LFO (C_f: 3.151)	Diesel/Gas Oil (C_f: 3.206)			Auxiliary Engine(s)	Main Propulsion Power									

1 In accordance with the *IMO Ship Identification Number Scheme*, adopted by the Organization by resolution A.1078(28).
2 As defined in regulation 2 of MARPOL Annex VI or other (to be stated).
3 Gross tonnage should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969.
4 NT should be calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969. If not applicable, note "N/A".
5 DWT means the difference in tonnes between the displacement of a ship in water of relative density of 1025 kg/m^3 at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or an organization recognized by it.
6 EEDI should be calculated in accordance with the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships*, as amended, adopted by resolution MEPC 245(66). If not applicable, note "N/A".
7 Ice class should be consistent with the definition set out in the *International Code for ships operating in polar waters (Polar Code)*, adopted by resolutions MEPC.264(68) and MSC.385(94)). If not applicable, note "N/A".
8 Power output (rated power) of main and auxiliary reciprocating internal combustion engines over 130 kW (to be stated in kW). Rated power means the maximum continuous rated power as specified on the nameplate of the engine.
9 Method used to measure fuel oil consumption: 1: method using BDNs, 2: method using flow meters, 3: method using bunker fuel oil tank monitoring

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STATEMENT OF COMPLIANCE – FUEL OIL CONSUMPTION REPORTING

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

. . . . . .
(full designation of the Party)

by . . . . . .
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship[7]

Name of ship . . . . . .

Distinctive number or letters. . . . . .

IMO Number[8] . . . . . .

Port of registry . . . . . .

Gross tonnage. . . . . .

THIS IS TO DECLARE:

1. That the ship has submitted to this Administration the data required by regulation 22A of Annex VI of the Convention, covering ship operations from (dd/mm/yyyy) through (dd/mm/yyyy); and

2. The data was collected and reported in accordance with the methodology and processes set out in the ship's SEEMP that was in effect over the period from (dd/mm/yyyy) through (dd/mm/yyyy).

This Statement of Compliance is valid until (dd/mm/yyyy). . . . . .

Issued at: . . . . . .
(place of issue of Statement)

Date (dd/mm/yyyy) . . . .

(date of issue) *(signature of duly authorized official issuing the Statement)*

(seal or stamp of the authority, as appropriate) "

Information for ship owners with ships under the German Flag

General information have been published with ISM Circular 05/2018 (ISM) dated 25.06.2018,

Existing and established EU MRV procedures can be used and integrated into the amendment of the SEEMP Part II,

While the German Agency for Emission Trading (DEHST) acts as competent authority for the EU MRV, the Ship Safety Division will be the responsible authority for the IMO data collection and reporting system,

RO/Class will be authorized to act on behalf of the German Flag,

The legal implementation (MARPOL Amendment) is currently under development by the German Ministry of Transport and Digital Infrastructure (BMVI).

Same requirements for EU MRV and IMO DCS

Ships of 5000 GT and above,

Only CO_2 emissions are monitored (fuel consumption),

Monitoring Plan,

Monitoring Plan Verification,

Measurement of fuel consumption by:

- Bunker Delivery Note (BDN)
- Tank sounding
- Flow meters
- Emission monitoring

Annual emission report,

Time schedules for annual emission reporting are similar.

Differences between EU MRV and IMO DCS

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EU MRV:

- Voyages to/from and between EU Ports are effected by single voyage reporting
- Fishing vessels above 5000 GT are exempted
- Monitor Plan verification can be done by a Verifier
- Report of ships loading capacity
- Data collection period has already started from 01.01.2018
- Entry of data in a public EU Database

IMO DCS:

- All international voyages are covered in an annual summary report
- No exemption for fishing vessel above 5000 GT
- Only RO/Class is authorized to act on behalf of the flag
- No report of loading capacity
- Data collection period will start from 01.01.2019
- Entry of data in the non public IMO GISIS Database

Will the IMO amend the EU MRV (Alignment)?

This has been previously announced by the EU commission in the past,

Up to now there are no indications from EU Commission to proceed in the work.

Thank you for your attention!

Any Questions?