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ANNEX

**ANNEX**

**to the**

**COMMISSION IMPLEMENTING REGULATION (EU).../...**

**on the template for monitoring plans pursuant to Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC**

## ANNEX

### Template for monitoring plans

#### Part A Revision record sheet

Version No	Reference date	Status at reference date <sup>(1)</sup>	Reference to Chapters where revisions or modifications have been made, including a brief explanation of changes

<sup>(1)</sup> Select one of the following categories: 'Working draft', 'Under revision', 'Final draft submitted to the verifier', 'Assessed by verifier'.

#### Part B Basic data

**Table B.1. Identification of the ship and shipowner details**

Name of the ship	
IMO Ship identification number	
Port of registry	
Home port (if not identical with port of registry)	
Name of the shipowner <sup>(1)</sup>	
Shipowner's tax number (voluntary)	
Contact person for the shipowner (voluntary)	
Address (voluntary)	
City (voluntary)	
State/Province/Region (voluntary)	

Telephone number (voluntary)	
Email address (voluntary)	
IMO Unique Company and Registered Owner identification number of the registered owner <sup>(2)</sup>	
Country of registration of the registered owner <sup>(1)</sup>	
Type of the ship <sup>(3)</sup>	
Deadweight (in metric tonnes)	
Gross Tonnage	
Classification Society (voluntary)	
Ice class (voluntary) <sup>(4)</sup>	
Flag State (voluntary)	
Technical Efficiency (voluntary) <sup>(5)</sup>	
Voluntary open description field for additional information about the characteristics of the ship <sup>(6)</sup>	

<sup>(1)</sup> As recorded under the IMO Unique Company and Registered Owner Identification Number Scheme

<sup>(2)</sup> The Registered Owner is the owner specified on a ship's certificate of registry.

<sup>(3)</sup> . Select one of the following categories: 'Passenger ship', 'Ro-ro ship', 'Container ship', 'Oil tanker', 'Chemical tanker', 'LNG carrier', 'Gas carrier', 'Bulk carrier', 'General cargo ship', 'Refrigerated cargo ship', 'Vehicle carrier', 'Combination carrier', 'Ro-pax ship', 'Container/ro-ro cargo ship', 'Other ship types'. Under the category 'Passenger ship', the sub-type 'Passenger Cruise Ship' should be included.

<sup>(4)</sup> Mandatory if the company requests to exclude the additional energy due to the ship's ice class and/or due to sailing in ice conditions from the calculation of the compliance balance set out in Annex IV of Regulation (EU) 2023/1805. Select one of the Polar Classes PC1 — PC7 or one of the Finnish-Swedish Ice Classes (IC, IB, IA or IA Super). To establish the correspondence between ice classes, HELCOM Recommendation 25/7 shall be used.

<sup>(5)</sup> Ships should report the Technical Efficiency index EEDI or EEXI, and if this do not exist, EIV can be reported.

<sup>(6)</sup> An additional contact person may be entered here.

## Table B.2. Company information

Name of the company	
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Nature of the company <sup>(1)</sup>	
IMO Unique Company and Registered Owner identification number of the company <sup>(2)</sup>	
Country of Registration of the company <sup>(3)</sup>	
Company tax number (voluntary)	
Contact person	
Address	
City	
State/Province/Region	
Postcode/ZIP	
Country	
Telephone number	
Email address	

<sup>(1)</sup> Companies can select one of the following: 'Shipowner and ISM Company', 'ISM Company distinct from Shipowner'.

<sup>(2)</sup> Identification number as recorded under the IMO Unique Company and/or Registered Owner Identification Number Scheme.

<sup>(3)</sup> The country of registration shall be identical to the country of registration as recorded under the IMO Unique Company and Registered Owner Identification Number Scheme.

**Table B.3. Fuel Consumers description**

N° Fuel consumer unit	Name of fuel consumer unit	Fuel consumer type <sup>(1)</sup>	Fuel consumer unit class <sup>(2)</sup>	Technical description of fuel consumer unit (performance/power, specific fuel oil consumption (SFOC), year of installation, identification number in case of multiple identical emission sources, etc <sup>(3)</sup> )	(Potential) Fuel types used <sup>(4)</sup>

<sup>(1)</sup> Select one of the categories: 'Main engines', 'Auxiliary engines', 'Gas turbines', 'Boilers', 'Inert gas generators', 'Fuel cells', 'Waste incinerators', 'Other'.

<sup>(2)</sup> ICE (other), LNG Otto (dual fuel medium speed), LNG Otto (dual fuel slow speed), LNG Diesel (dual fuel slow speed), LBSI, Gas turbine, Boilers, Fuel Cells, Waste Incinerators, Inert Gas generators.

<sup>(3)</sup> May include the identification number in case of multiple identical emission source. The performance/power value of MCR specified on the EIAPP certificate should be used. If the fuel consumer is not required to have an EIAPP certificate, the MCR on the nameplate should be used. SFOC: For engines certified to the E2 or E3 test cycles of the NOX Technical Code 2008, the engine SFOC is that recorded in the test report included in a NOX technical file for the engine at 75% of MCR power of its torque rating. For engines certified to the D2 or C1 test cycles of the NOX Technical Code 2008, the engine SFOC is that recorded on the test report included in a NOX technical file at the engine 50% of MCR power or torque rating.

<sup>(4)</sup> Select at least one of the following categories: ‘Heavy Fuel Oil (HFO)’, ‘Light Fuel Oil (LFO)’, ‘Diesel/Gas Oil (MDO/MGO)’, ‘Liquefied Petroleum Gas (Propane, LPG)’, ‘Liquefied Petroleum Gas (Butane, LPG)’, ‘Liquefied Natural Gas (LNG)’, ‘H2 (Fossil)’, ‘NH3 (Fossil)’, ‘Methanol (Fossil)’, ‘Ethanol’, ‘Bio-diesel’, ‘Hydrotreated Vegetable Oil’, ‘Liquified bio-methane as transport fuel (Bio-LNG)’, ‘Bio-methanol’, ‘Other Biofuel’, ‘Bio-H2’, ‘e-diesel’, ‘e-methanol’, ‘e-LNG’, ‘e-H2’, ‘e-NH3’, ‘e-LPG’, ‘E-DME’, ‘Non-fossil other fuel’.

**Table B.4. Equipment to allow connection to on-shore power supply (only mandatory for container ships and passenger ships)**

OPS equipment reference no.	OPS equipment (name, type)	Technical description of OPS equipment specified voltage and frequency, including the gear specified in IEC/IEEE 80005-1 (High Voltage) and IEC/IEEE 80005-3 (Low Voltage) and position onboard	Standards <sup>(1)</sup>

<sup>(1)</sup> IEC/IEEE 80005-1 (High Voltage) and IEC/IEEE 80005-3 (Low Voltage)

**Table B.5. Zero-emission technology (only mandatory for container ships and passenger ships which do not use on-shore power supply)**

Zero-emission technology reference no.	Zero-emission technology (name, type) <sup>(1)</sup>	Technical description of zero-emission technology <sup>(2)</sup>

<sup>(1)</sup> Fuel cells, on-board electrical energy storage from power generation at sea, on-board electrical energy storage from OPS, on-board electrical energy storage from battery swapping, on-board power generation from wind or on-board power generation from solar energy.

<sup>(2)</sup> Technical description must include the rated power.

**Table B.6. Established total electrical power demand of the ship at berth <sup>(1)</sup>**

Established total electrical power demand of the ship at berth (Kw)	Data Source

<sup>(1)</sup> As provided in its Electrical load balance or Electrical load study used to demonstrate compliance with Regulations 40 and 41 of Chapter II-1 of the SOLAS Convention. In case the ship is not able to provide this reference, the value considered is 25% of the total

of the maximum continuous ratings of the main engines of the ship as specified in their EIAPP certificate delivered in application of the MARPOL Convention or, if the engines are not required to have an EIAPP certificate, on the nameplate of the engines.

**Table B.7 Description of Wind Assisted Propulsion equipment (WASP) (when applicable)**

WAPS reference no.	WASP (name, type) <sup>(1)</sup>	Technical description of WASP equipment	Pwind <sup>(2)</sup>	Pprop <sup>(2)</sup>

<sup>(1)</sup> Choose one of the following categories: rotor sails, kites, hard or rigid sails, soft sails, suction wings, turbines, other WASP systems.

<sup>(2)</sup> As defined in Annex I of Regulation (EU) 2023/1805, if applicable.

**Table B.8. Procedures, systems and responsibilities used to update the completeness of the list of fuel consumers, OPS equipment, zero-emission technology and WASP**

Title of procedure	Managing the completeness of the list of fuel consumers, OPS equipment, zero-emission technology and WASP
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table B.9. Procedures for monitoring and reporting the well-to-tank and tank-to-wake emission factors of energy to be used on-board, in accordance with the methods specified in Article 10 and Annexes I and II**

Title of procedure	Monitoring and reporting the well-to tank and tank-to-wake emission factors of energy to be used on-board
Reference to existing procedure	

Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

## Part C Activity data

### C.1. Monitoring of energy consumption

**Table C.1.1. Methods used to determine fuel consumption of each fuel consumer:**

N° fuel consumer unit <sup>(1)</sup>	Name of fuel consumer unit	fuel consumer type <sup>(2)</sup>	Monitoring method <sup>(3)</sup>

<sup>(1)</sup> As reported in table B.3.

<sup>(2)</sup> Select one of the categories: 'Main engines', 'Auxiliary engines', 'Gas turbines', 'Boilers', 'Inert gas generators', 'Fuel cells', 'Waste incinerators', 'Other'.

<sup>(3)</sup> Select one or more of the following categories Method A: BDN and periodic stocktakes of fuel tanks, Method B: Bunker fuel tank monitoring on-board, 'Method C: Flow meters for applicable combustion processes' or 'Method D: Direct CO<sub>2</sub> greenhouse gas emissions measurement'. When using Method D, the fuel consumption shall be calculated using the measured CO<sub>2</sub> emissions. If the fuel consumed has slip emissions factors, the amount of fuel shall be corrected accordingly.

**Table C.1.2. Procedures for determining fuel bunkered and fuel in tanks:**

Title of procedure	Determining fuel bunkered and fuel in tanks
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	

Name of IT system used (where applicable)	
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**Table C.1.3. Regular cross-checks between bunkering quantity as provided by BDN and bunkering quantity indicated by on-board measurement:**

Title of procedure	Regular cross-checks between bunkering quantity as provided by BDNs and bunkering quantity indicated by on-board measurement
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	

**Table C.1.4. Method for determination of fuel density:**

Fuel type/tank	Method to determine actual density values of fuel bunkered <sup>(1)</sup>	Method to determine actual density values of fuel in tanks <sup>(2)</sup>

<sup>(1)</sup> Select one of the following categories: 'On-board measurement equipment', 'Fuel supplier' or 'Laboratory test'.

<sup>(2)</sup> Select one of the following categories: 'Measurement equipment', 'Fuel Supplier' or 'Laboratory test'.

**Table C.1.5. Level of uncertainty associated with fuel monitoring:**

Monitoring method <sup>(1)</sup>	Approach used <sup>(2)</sup>	Value of uncertainty

<sup>(1)</sup> Select one or more of the following categories: 'Method A: BDN and periodic stocktakes of fuel tanks', 'Method B: Bunker fuel tank monitoring on-board', 'Method C: Flow meters for applicable combustion processes' or 'Method D: Direct GHG emissions measurement'

<sup>(2)</sup> Select one of the following categories: 'Default value' or 'Ship specific estimate'.

**Table C.1.6. Procedures for monitoring energy provided by on-shore power supply (OPS) (where applicable)**

Title of procedure	Monitoring energy provided by on-shore power supply (OPS)
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Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table C.1.7. Procedures for monitoring energy provided by a zero-emission technology (where applicable)**

Title of procedure	Monitoring energy provided by a zero-emission technology
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table C.1.8. Procedures for monitoring fuel consumption of each Fuel consumer when sailing in ice conditions <sup>(1)</sup>**

Title of procedure	Monitoring fuel consumption of each fuel consumer when sailing in ice conditions
Reference to existing procedure	

Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

<sup>(1)</sup> Mandatory if the company requests to exclude the additional energy used due to sailing in ice conditions from the calculation of the compliance balance set out in Annex IV of Regulation (EU) 2023/1805.

## C.2. General procedures for measurements

**Table C.2.1. Description of the measurement instruments involved**

Measurement equipment (name)	Elements applied to (e.g. fuel consumer units, tanks, substitute sources of energy or a zero-emission technology)	Technical description (specification, calibration methods and intervals, maintenance intervals)

**Table C.2.2. Procedures for recording, retrieving, transmitting, and storing information regarding measurements**

Title of procedure	Recording, retrieving, transmitting and storing information regarding measurements
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	

Name of IT system used (where applicable)	
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**Table C.2.3. Procedures for ensuring quality assurance of measuring equipment**

Title of procedure	Ensuring quality assurance of measuring equipment
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

### C.3. Navigation

**Table C.3.1. Procedures for determining and recording the list of voyages**

Title of procedure	Recording and safeguarding completeness of voyages
Reference to existing procedure	
Version of existing procedure	
Description of procedures (including recording voyages, monitoring voyages etc.) (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Data sources	

Location where records are kept	
Name of IT system used (where applicable)	

**Table C.3.2. Procedures for determining and recording the Distance travelled <sup>(1)</sup>**

Title of procedure	Recording and determining the distance per voyage made
Reference to existing procedure	
Version of existing procedure	
Description of procedures (including recording and managing distance information) (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Data sources	
Location where records are kept	
Name of IT system used (where applicable)	

<sup>(1)</sup> Mandatory if the company requests to exclude the additional energy used due to sailing in ice conditions from the calculation of the compliance balance set out in Annex IV of Regulation (EU) 2023/1805.

**Table C.3.3 Procedures for determining and recording the date, time and position when entering and leaving the ice conditions, the distance travelled when sailing in ice conditions <sup>(1)</sup>**

Title of procedure	Determining and recording the distance travelled when sailing in ice conditions
Reference to existing procedure	
Version of existing procedure	
Description of procedures (including recording and managing distance and winter conditions information) (a brief description of the procedure can be provided if already existing outside the monitoring plan)	

Name of person or position responsible for this procedure	
Formulae and data sources	
Location where records are kept	
Name of IT system used (where applicable)	

<sup>(1)</sup> Mandatory if the company requests to exclude the additional energy used due to sailing in ice conditions from the calculation of the compliance balance set out in Annex IV of Regulation (EU) 2023/1805.

**Table C.3.4. Procedures for determining and recording the time spent at sea and at berth <sup>(1)</sup>**

Title of procedure	Determining and recording the time spent at sea from berth of port of departure to berth of the port of arrival, and time spent at berth (quayside and anchorage)
Reference to existing procedure	
Version of existing procedure	
Description of procedures (including recording and managing port departure and arrival information) (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Formulae and data sources	
Location where records are kept	
Name of IT system used (where applicable)	

<sup>(1)</sup> 'Ship at berth' means a ship which is securely moored or anchored in a port falling under the jurisdiction of a Member State while it is loading, unloading or hotelling, including the time spent when not engaged in cargo operations; 'ship at anchorage' means a ship at berth which is not moored at the quayside; 'voyage' means any movement of a ship that originates from or terminates in a port of call and that serves the purpose of transporting passengers or cargo for commercial purposes.

## Part D Data gaps

**Table D.1. Methods to be used to estimate fuel consumption**

Title of method	Method to be used to estimate fuel consumption
Back-up monitoring method <sup>(1)</sup>	
Formulae used	
Description of method to estimate fuel consumption	
Name of person or position responsible for this method	
Data sources	
Location where records are kept	
Name of IT system used (where applicable)	

<sup>(1)</sup> Select one of the following categories: 'Method A: BDN and periodic stocktakes of fuel tanks', 'Method B: Bunker fuel tank monitoring on-board', 'Method C: Flow meters for applicable combustion processes', 'Method D: Direct GHG emissions measurement' or 'Not applicable'. The selected category must be different from the category selected under 'Chosen methods for fuel consumption' in table C.2. (Monitoring of fuel consumption — Methods used to determine fuel consumption of each Fuel Consumer unit).

**Table D.2. Methods to be used to estimate energy consumption from OPS and ZET (where applicable)**

Title of method	Method to be used to estimate energy consumption
Back-up monitoring method	
Formulae used	
Description of method to estimate energy consumption	
Name of person or position responsible for this method	
Data sources	
Location where records are kept	

Name of IT system used (where applicable)	
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**Table D.3. Methods to be used to treat data gaps regarding distance travelled**

Title of method	Method to treat data gaps regarding distance travelled
Formulae used	
Description of method to treat data gaps	
Name of person or position responsible for this method	
Data sources	
Location where records are kept	
Name of IT system used (where applicable)	

**Table D.4. Methods to be used to treat data gaps regarding the date, time and position when entering and leaving the ice conditions, the distance travelled when sailing in ice conditions**

Title of method	Method to treat data gaps regarding the date, time and position when entering and leaving the ice conditions, the distance travelled when sailing in ice conditions
Formulae used	
Description of method to treat data gaps	
Name of person or position responsible for this method	
Data sources	
Location where records are kept	
Name of IT system used (where applicable)	

**Table D.5. Methods to be used to treat data gaps regarding time spent at sea and time spent at berth (quayside and anchorage) (where applicable)**

Title of method	Method to treat data gaps regarding time spent at sea and time spent at berth (quayside and anchorage)
Formulae used	
Description of method to treat data gaps	
Name of person or position responsible for this method	
Data sources	
Location where records are kept	
Name of IT system used (where applicable)	

**Part E Management**

**Table E.1. Regular check of the adequacy of the monitoring plan**

Title of procedure	Regular check of the adequacy of the monitoring plan
Reference to existing procedure	
Version of existing procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table E.2. Procedures for data flow activities**



Title of procedure	Procedures for data flow activities
Reference for procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table E.3. Procedures for risk assessment**

Title of procedure	Procedures for risk assessment
Reference for procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table E.4. Control activities: Quality assurance and reliability of information technology**

Title of procedure	Information Technology Management (e.g. access controls, back up, recovery and security)
Reference for procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	

Name of person or position responsible for data maintenance	
Location where records are kept	
Name of system used (where applicable)	
List of relevant existing management systems	

**Table E.5. Control activities: Internal reviews and validation of relevant data**

Title of procedure	Internal reviews and validation of FuelEU relevant data
Reference to existing procedure	
Version of existing procedure	
Description of procedure (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table E.6. Control activities: Corrections and corrective actions**

Title of procedure	Corrections and corrective actions
Reference to existing procedure	
Version of existing procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	

Location where records are kept	
Name of IT system used (where applicable)	

**Table E.7. Control activities: Outsourced activities (if applicable)**

Title of procedure	Outsourced activities
Reference to existing procedure	
Version of existing procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Table E.8. Control activities: Documentation**

Title of procedure	Documentation
Reference to existing procedure	
Version of existing procedure	
Description of procedures (a brief description of the procedure can be provided if already existing outside the monitoring plan)	
Name of person or position responsible for this procedure	
Location where records are kept	
Name of IT system used (where applicable)	

**Part F Further information**

**Table F.1. List of definitions and abbreviations**

Abbreviation, acronym, definition	Explanation

