Preparing for FuelEU Maritime Regulation Monitoring Plan

FuelEU Project Team

Lisbon, 04 June 2024







- Monitoring Plan Workflow
- Monitoring Plan Content
- FuelEU MP in THETIS-MRV

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13952-Decarbonising-the-shipping-sector-template-for-standard-monitoring-plans-Article-8-4-FuelEU-Maritime-Regulation-_en





Monitoring Plan Template



Specific MRV 18	Common 25	Specific FEUM 15
	Part A Revision record sheet	
	Part B Basic Data B.1. Ship Information B.2. Company information B.3. Fuel Consumers and fuel types used B.8 Procedures	
B.4 B5 B.8. B.9 EF B.6 OCC		B.4. OPS B.5. ZET B.6. Power at berth B.7. WASP B.8. OPS B.9. EF
	Part C Activity Data C.1.1-6 Fuel Consumption C.2.1./2/3 Instruments C.3.1 Voyage C.3.2 Distance	s
C.1 Exep. C 2.9-12 Cargo C.4 Ice C.5_C.6 Cargo		C.1.6 OPS C.1.7. ZET C.1.8. Ice C.3.3 Ice C.3.4 Time at sea/berth
	Part D Data Gaps D.1. Fuel Consumption D.3. Distance	
D.3 Cargo D.4 Time at sea		D.2. OPS/ZET D.4. Ice D.5. Time at Sea/at berth
	Part E. Management E.1. Checks E.2/3/4/5/6/7/8 Control activities	
E.5 MRV Data		E.5. FEUM Data

MyFleet	Ship	Monitoring		ssion Report	~		Submit	t to Verifier	Submit to Adm	nin Authorit	ty Revise	e plan	Revalidate	Print to PD)F Data
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Ship type	Ro-pax s	ship	TEO	Fla	g 🖪	Brazil			Verifier	Verifier Sa	arah				
MP particula	ars Ship	Company	Measuring equipment	Emission sources	Fuel F tanks	Fuel types and EF	Fuel consump.	CCS and CCU	Navigation	SSE	Control activities	Further info.	Non conformities	MP revision	Docs
<u>Part A</u> Revision Record Sheet							_					Ne	ew tables	for all s	hips
<u>Part B</u> Basic Data						Table B.9									
<u>Part C</u> Activity Data															
<u>Part D</u> Data Gaps <u>Part E</u>													Part E		
Manage ment													Table E.5		



New tables for all ships

Table B.9 Emission Factors

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 9 and Annexes I and II of FEUM

l litle 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)	

Table E.5 Internal reviews

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)	

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MP particulars	Ship	Company	Measuring equipment	Emission sources	Fuel tanks	Fuel types and EF	Fuel consump.	CCS and CC	U Navigation	SSE	Control activities	Further info.	Non conformities	MP revision	Docs
Part A Revision Record Sheet <u>Part B</u> Basic Data											Table B.4 B.5 B.6	N	ew tables	related	to OPS
											B.7 B.8				

Data

<u>Part D</u> Data Gaps

<u>Part E</u> Manage ment



New tables related to OPS

Table B.4 OPS Equipment

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 $\uparrow\downarrow$
Actions				
Actions				
<< < page 1 of 1	> >> PDF XLS CSV			

Table B.5 ZET Equipment

Zero-emission technology (only mandatory for container ships and passenger ships)

	Zero-emission technology reference no. ↑↓	Zero-emission technology (name, type) ↑↓	Technical description of zero-emission technology
Actions	1		
Actions	2		
<< < page 1 of 1 > >	> PDF XLS CSV		

Table B.6 Power demand at berth

Power demand at berth

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



New tables related to OPS

Table B.8 Completeness of OPS and ZET Systems

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)	

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MF particu		Ship	Company	Measuring equipment	Emission sources	Fuel tanks	Fuel types and EF	Fuel consump.	CCS and CCU	Navigation	SSE	Control activities	Further info.	Non conformities	MP revision	Docs
Part A Revision Record Sheet Part B Basic Data Part C Activity Data											С	Table B.4 B.5 B.6 B.7 B.8 able .1.6 .1.7	N	ew tables	related	to OPS
<u>Part D</u> Data Gaps											Table D.2	2				





New tables related to OPS

Table C.1.6 Monitoring energy from OPS

Procedures for monitoring energy provided by on-shore power supply (OPS)

Title of procedure	Monitoring energy provided by on-shore power supply (OPS)
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 Monitoring energy from ZET

Procedures for monitoring energy provided by zero-emission tecnhology

Title of procedure	Monitoring energy provided by zero-emission tecnology
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)	



New tables related to OPS

Table D.2 Data gaps for energy consumption from OPS and ZET

Title of methodMethod to be used to estimate energy consumptionBack-up monitoring methodFormulae usedDescription of method to estimate energy consumptionName of person or position responsible for this methodData sourcesLocation where records are keptName of IT system used (where applicable)

Methods to be used to estimate energy consumption from OPS and ZET

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MP	ars Ship Company	Measuring equipment	Emission Fuel sources tanks	Fuel types and EF	Fuel CCS and	CCU Navigation	SSE	Control activities	Further info.	Non conformities	MP revision	Docs
Part A Revision Record Sheet Part B Basic Data Part C Activity Data						Table C.3.3 C.3.4	C.	Table B.4 B.5 B.6 B.7 B.8 ble 1.6 1.7	Ne	ew tables		to OPS e at Berth)
<u>Part D</u> Data Gaps <u>Part E</u>					Table D.4 D.5		Table D.2					

Manage ment



New tables related to OPS (Time at Berth)

Table C.3.4 Procedures for time at anchorage / quayside

Procedures for determining and recording the time spent at sea and at berth

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 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 D.5 Data gaps for time at anchorage / quayside

Methods to be used to treat data gaps regarding time spent at sea and time spent at berth (quayside and anchorage)

Title of procedure	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)	

MyFleet	Ship Monitoring	g Plan Emi	ssion Report	 ~		Submit	t to Verifier	Submit to Adm	in Author	ity Revis	e plan	Revalidate	Print to PI	DF Data
IMO Ship type	8301802 Ro-pax ship	MRV FEU	Nai	me g	TABLE B.1			Company Verifier	Oceanix Verifier S	Table B.2 Sarah		И	1P status 🛛 I	Under Revisi
MP particulars	Ship Company	Measuring equipment	Emission sources	Fuel tanks	Fuel types and EF	Fuel consump.	CCS and CCU	Navigation	SSE	Control activities	Further info.	Non conformities	MP revision	Docs
Part A Revision Record Sheet Part B Basic Data										Table B.4 B.5 B.6 B.7 B.8	Nev	w tables r	elated	to WASP
<u>Part C</u> Activity Data														

<u>Part D</u> Data Gaps

<u>Part E</u> Manage ment



New tables related to WASP

Table B.7 WASP

Description of Wind Assisted Propulsion equipment (WASP)

	WAPS reference no. $\uparrow\downarrow$	WASP (name, type) ↑↓	Technical description of WASP equipment	Pwind $\uparrow\downarrow$	Pprop↑↓	
Actions	1					
Actions	2					
<< < page 1 of 1 > >> PDF XLS CSV						



Manage ment



New tables related to sailing in ice

Table C.1.8 Monitoring fuel consumption when sailing in ice

Procedures for monitoring Fuel consumption of each fuel consumer when sailing in ice conditions

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)	

Table C.3.3 Procedures for monitoring navigation data when sailing in ice

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

Title of procedure	Determining and recording the distance travelled 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)	



New tables related to sailing in ice

Table D.4 Data gaps regarding navigation data related to sailing in ice

Methods to be used to treat data gaps regarding the date, time and position when entering the ice conditions, the distance travelled when sailing in ice conditions

Title of procedure	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)	





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