Preparing for FuelEU Maritime Regulation

Monitoring Plan

FuelEU Project Team

European Maritime Safety Agency

Agenda



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

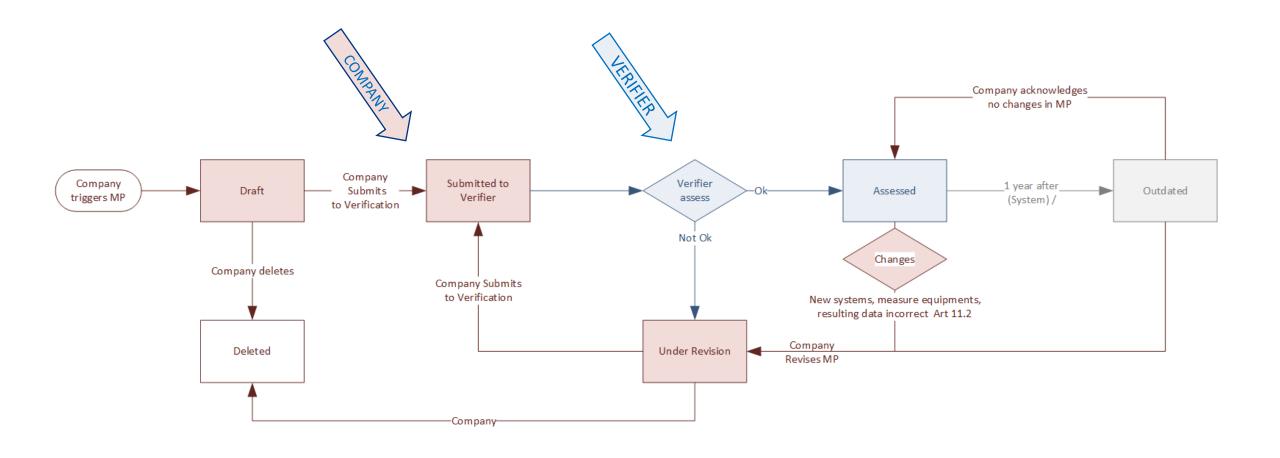
https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13952-Decarbonising-the-shipping-sector-template-for-standard-monitoring-plans-Article-8-4-FuelEU-Maritime-Regulation-en

FEU MP Workflow



Company Status

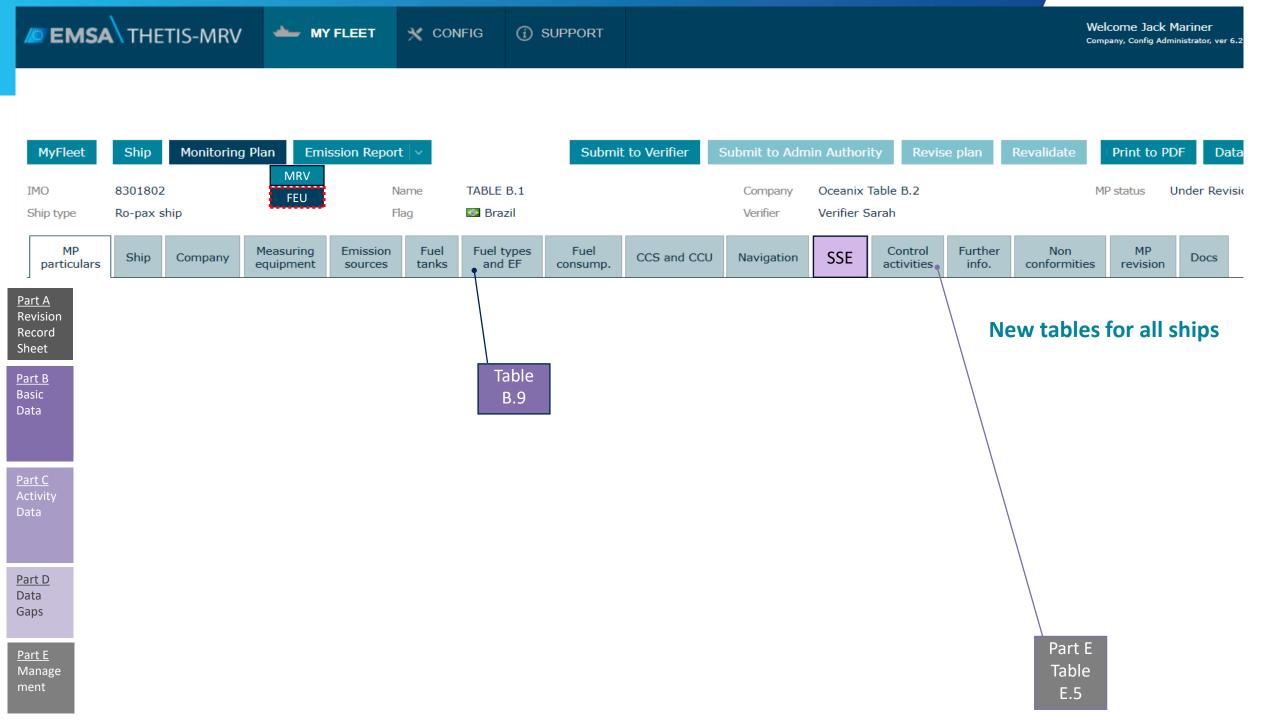
Verifier Status



Monitoring Plan Template



Common 25 Specific MRV 18 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. OPS B.5. ZET B.6. Power at berth B.7. WASP B.4 B5 B.8. B.9 EF B.6 OCC 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 Voyages C.3.2 Distance C.1.6 OPS C.1.7. ZET C.1.8. Ice C.3.3 Ice C.3.4 C.1 Exep. C 2.9-12 Cargo C.4 Ice C.5_C.6 Cargo 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





New tables for all ships

Table B.9 Emission Factors

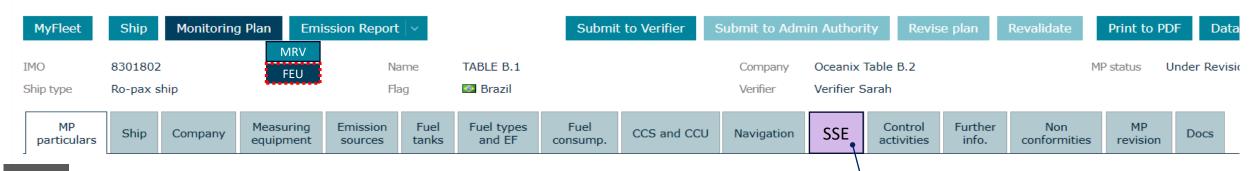
Procedures for monitoring and reporting the well-to-tank and tank-to-wake emission factors of energy to be used on-board, in accordance with the methods specified in Article 9 and Annexes I and II of FEUM

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)	

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)		



Part A Revision Record Sheet

Part B Basic Data

Part C Activity Data

Part D
Data
Gaps

<u>Part E</u> Manage ment **New tables related to OPS**

Table B.4

B.5

B.6

B.7

B.8



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 ↑↓
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

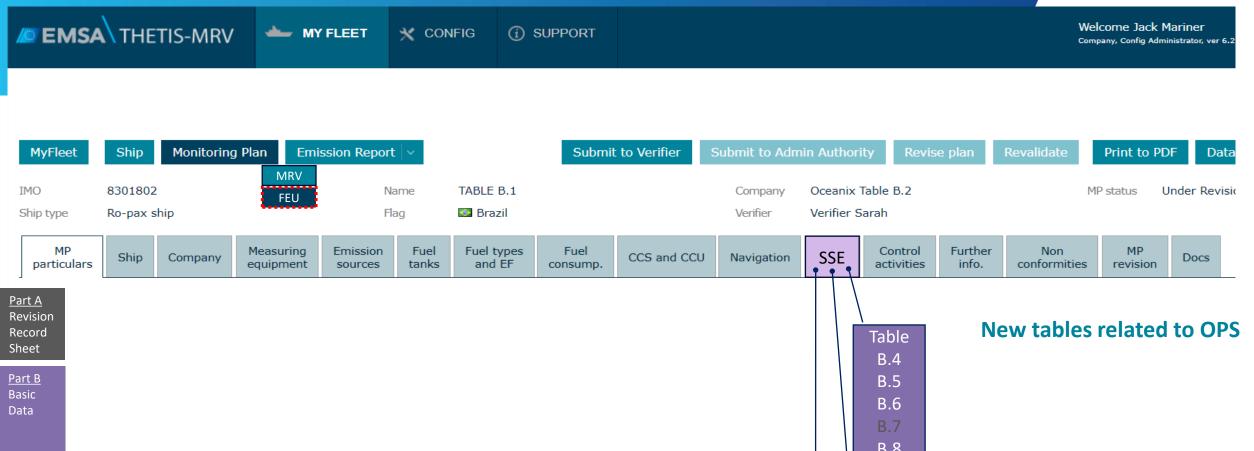


New tables related to OPS

Table B.8 Completeness of OPS and ZET Systems

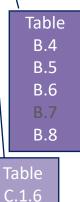
Procedures, systems and responsibilities used to update the completeness of the list of fuel consumers. OPS equipment, zero-emission technology and WASP

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)	



Part D Data Gaps

Part E Manage ment



Table

D.2

C.1.7



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 techhology

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)	

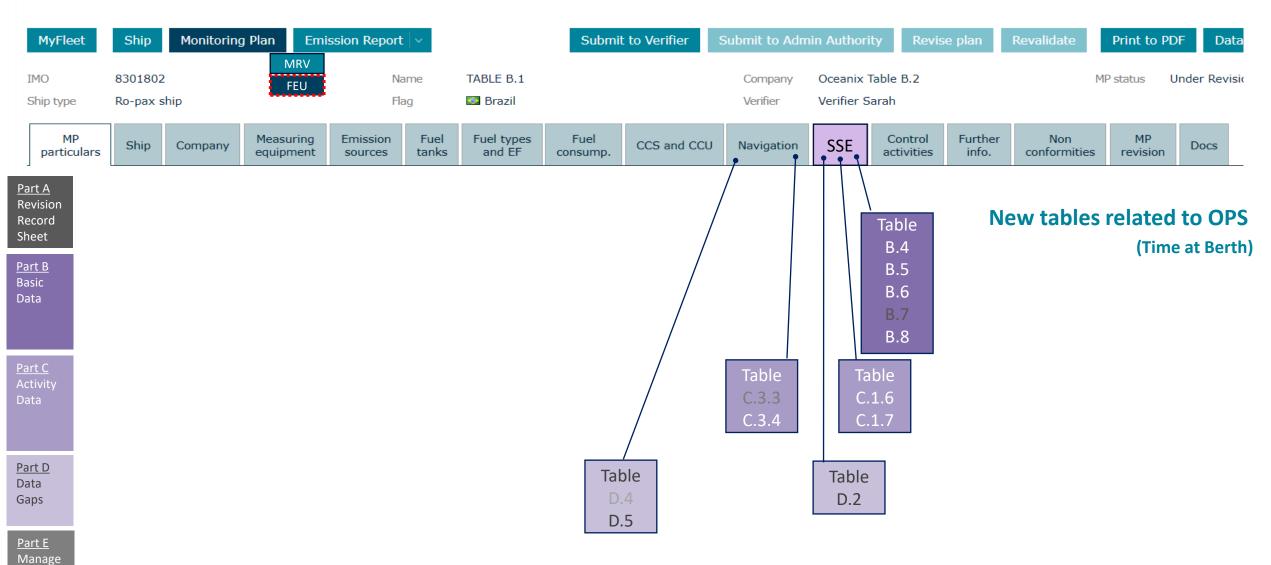


New tables related to OPS

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

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

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)	



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)	



Part A Revision Record Sheet

Part B Basic Data

Part C Activity Data

Part D
Data
Gaps

<u>Part E</u> Manage ment

New tables related to WASP

Table

B.7

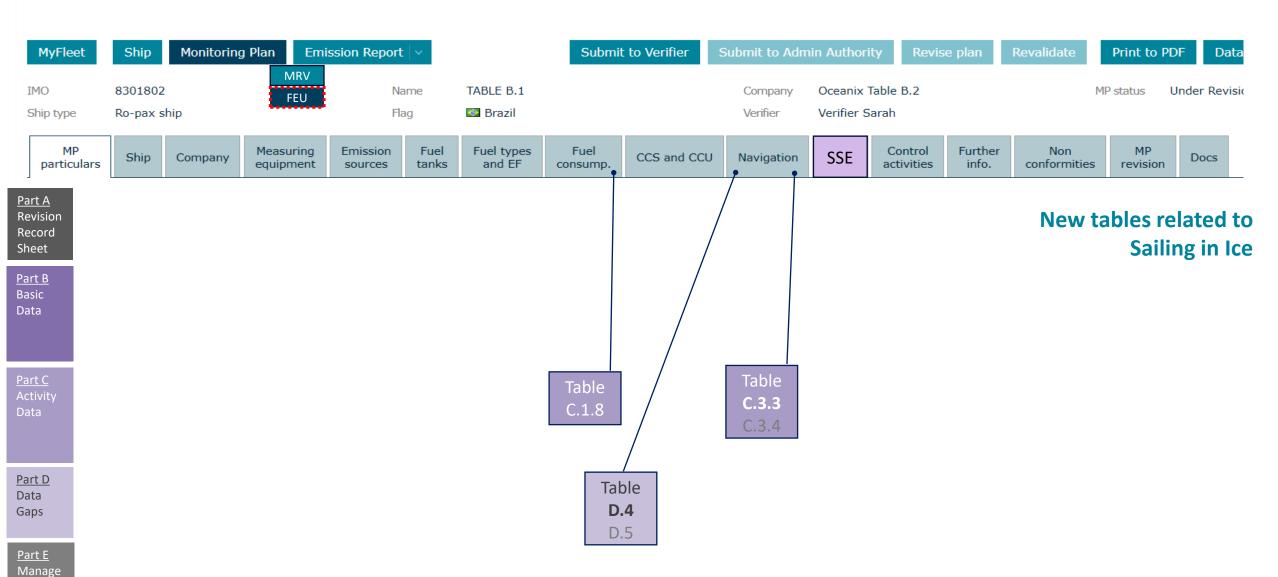


New tables related to WASP

Table B.7 WASP

Description of Wind Assisted Propulsion equipment (WASP)

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



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)	

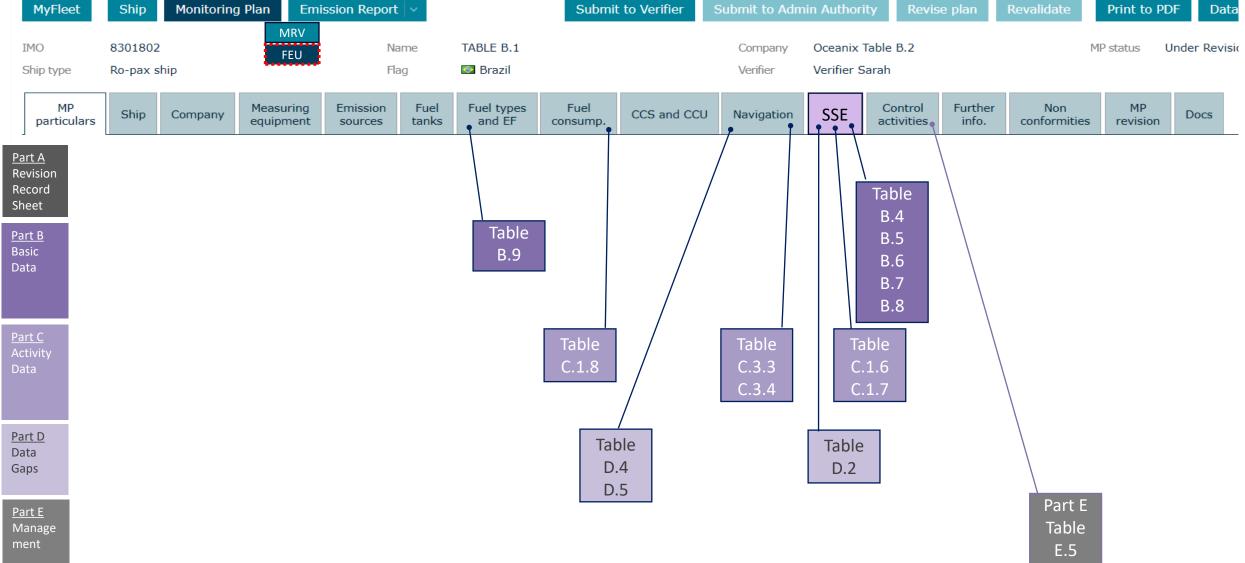


New tables related to sailing in ice

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)	





Follow our activities on social media:













