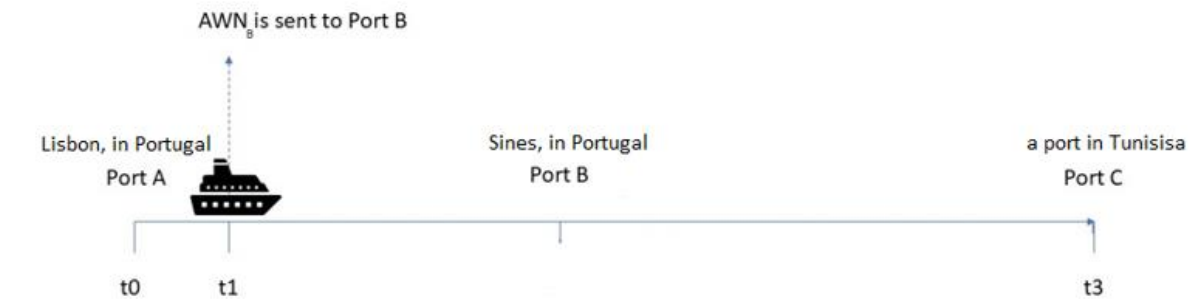


## Exercises on the new PRF Directive

Date: 19/10/2021

### Exercise #1

#### Scenario



Port B is the **Port of Call**

2.4 Last Port and country		2.5 Next Port and Country (if known)		2.8 Next Port of Delivery
Port A		Port C		Port C
3.2 Waste to Be Delivered (WTBD)	3.3 Maximum Dedicated Storage Capacity (M)	3.4 Amount of Waste Retained On Board (AWRB)	3.5 Port At Which Remaining Waste Will be Delivered	3.6 Estimated Amount of Waste to be Generated Between Notification and Next Port of Call (E)
Amount that is intended to be delivered at Port B	Fixed Value	Amount estimated that will be on board when vessel leaves Port B		Amount estimated to be generated in time interval [t1,t3]
Value: 0 m <sup>3</sup>	60 m <sup>3</sup>	16 m <sup>3</sup>	Port C	18 m <sup>3</sup>

Clarification:

Value:

You have decided to inspect a specific vessel that has called at your port (Port B). This vessel has been assigned a *Risk Level 2* by the Union RBT Mechanism and one of the alerts associated to it is related to 'insufficient dedicated storage capacity' for Oily Residues (sludge) waste. As preparation, you look at the Advanced Waste Notification (AWN) that was forwarded by the ship prior arrival to your port (see above). From

the AWN, you notice that there is no intention from the ship to deliver any sludge at your port, even though there is an adequate Port Reception Facility (PRF) for that purpose.

From the AWN you can also see that:

- The declared capacity of the sludge tank is 60 m<sup>3</sup>
- The quantity of sludge that is estimated to remain onboard when the vessel departs to Port C is 16 m<sup>3</sup>
- The vessel intends to deliver the sludge at the next port (Port C)

From GISIS you know that the next port has indeed a PRF for sludge and that it is outside the EU.

You understand that the alert was triggered because when applying the sufficient dedicated storage calculation method (see equation below) the resulting UWC<sub>BEGINNING</sub> coefficient is above the Threshold set for ports outside the EU for Annex I (see Threshold table below)

With:

$$UWC_{\text{BEGINNING}} (\%) = \frac{A \times 100}{M} < \text{Threshold}$$

A – is the Amount of waste type retained on board (m3) at the time of departure from the Port of Call.

M – is the Maximum dedicated storage capacity (m3)

Threshold will vary depending on MARPOL Annex and next port of call in EU or not

Example:

Next port of call	Annex I
Next Port of Call is an EU-port + 'Group of Additional Selected Ports'	50
Next Port of Call is not an EU-port, nor from 'Group of Additional Selected Ports'	25

	The $UWC_{\text{BEGINNING}}$ value is however not very much above the Threshold. You decide to confirm the values reported in the AWN and conclude that indeed there is not sufficient dedicated storage to proceed with the voyage without delivery. You require the vessel to deliver all its sludge, fill in the inspection report adequately and take a number of follow-up actions.
<b>Exercises</b>	<ol style="list-style-type: none"> <li>1) Using the equation above, determine the <math>UWC_{\text{BEGINNING}}</math> value and compare it to the threshold set for Annex I for ports outside the UE</li> <li>2) Describe how you would verify the validity of the AWN reported values 'Amount of Waste Retained on board' and 'Maximum Dedicated Storage Capacity'.</li> <li>3) Describe which would be your instructions to the master of the ship,</li> <li>4) and how you would fill in the Inspection Report in terms of: <ol style="list-style-type: none"> <li>a. Inspection outcome</li> <li>b. Inspection Actions</li> <li>c. and Non-Compliances</li> </ol> </li> </ol>

<b>Exercise #2</b>	
<b>Scenario</b>	A ship is arriving at your port (located in the Mediterranean) and has been assigned a Risk Level 1 by the Union RBT Mechanism. The reason for this is that there is an Incident Report of type Waste from the authorities of the previous port (also located in the Mediterranean), indicating that no Advanced Waste Notification (AWN) had been reported at their port (Port A) for garbage (Annex V): for 'food waste' and for 'cooking oil'. Note that the Mediterranean is considered a special area for Annex V (see below), according to the MARPOL Convention.

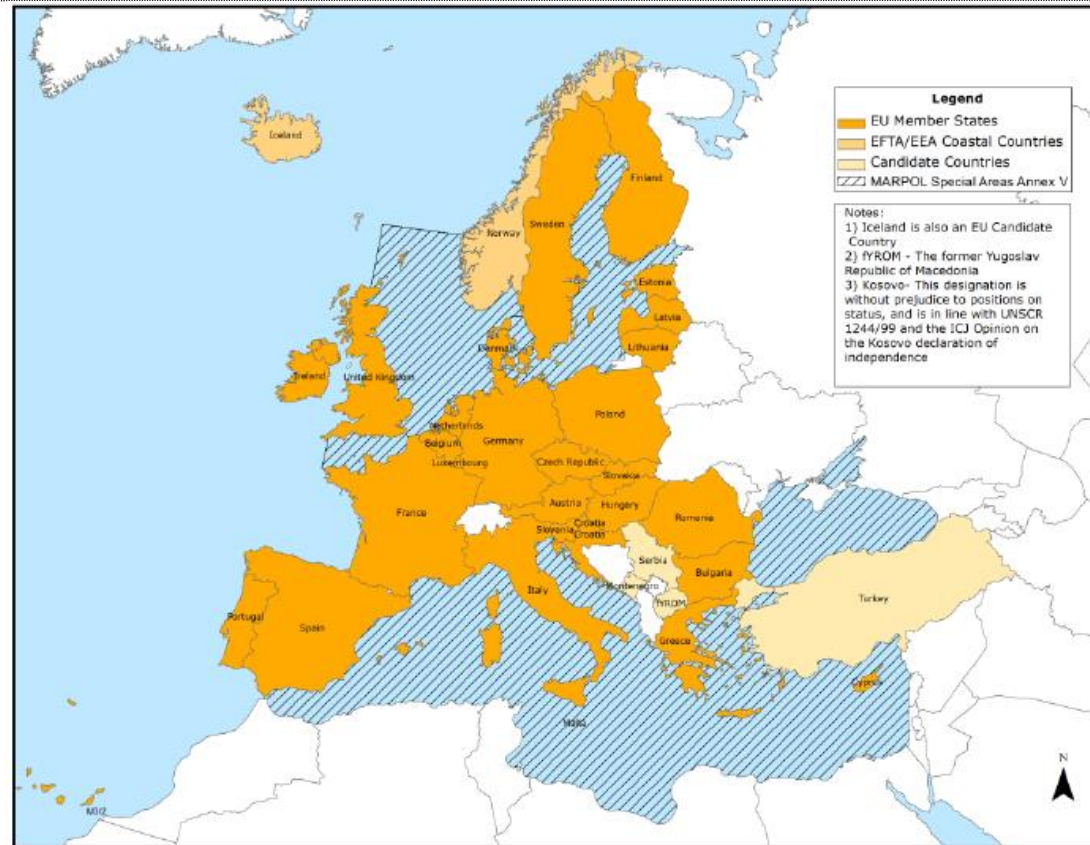


Fig 1. MARPOL Annex V: Special Areas<sup>1</sup>

You decide to go onboard, but first check if there is an Advanced Waste Notification (AWN) from the vessel sent to your port (Port B). There is indeed one, but it indicates no intention to deliver any type of garbage to your port as well. It indicates the intention to deliver only 'cooking oil' at the next port (Port C), located in the Mediterranean coast, in Libya.

<sup>1</sup> To be noted that this map reflects the situation before Brexit, and the legend for EU Member State is therefore not updated

When on board, you discuss the situation with the master. In relation to the incident report received via SSN, he shows you a written Awn Form, demonstrating that there was the intention to deliver 'cooking oil' and 'food waste' at the previous port. The notification was however not sent electronically via the National Single Window. Furthermore, he shows a Waste Receipt form confirming the actual delivery of those waste types at the previous port. However, you notice that the delivered amount of 'food waste' is very different from the announced amount in the Awn from on board.

You proceed with a visual inspection of the garbage storage room and see:

- one drum with separated 'cooking oil', with 'Amounts of Waste Retained on Board' very close to those reported in the Awn sent to your port. There is sufficient dedicated storage for the vessel to be allowed to depart to Port C. However, you know from your experience (and confirm in GISIS database), that Port C has no adequate PRF for cooking oil.
- as for food waste, you see only big-bags with 'not comminuted or ground food waste'. The amount is very close to the threshold of sufficient dedicated storage and the reported 'estimated amount of waste to be generated 'until Port C is very reduced, although there are 10 passengers onboard, and the journey will take 2 days. The master explains that in case there will be no sufficient space, he will legally discharge the food waste in locations  $\geq 12$  nm during voyage towards Port C. But you cannot find any food comminuter onboard or consulting the Garbage Management Plan.

You know that the applicable rules for legal discharges in Annex V special areas are those in the Table below:

Simplified overview of discharge provisions MARPOL ANNEX V

Type of garbage	Ships outside special areas	Ships within special areas	Offshore platforms and all ships within 500 m of such platforms
Food waste comminuted or ground	Discharge permitted ≥3 nm from the nearest land and en route	Discharge permitted ≥12 nm from the nearest land and en route	Discharge permitted ≥12 nm from the nearest land
Food waste not comminuted or ground	Discharge permitted ≥12 nm from the nearest land and en route	Discharge prohibited	Discharge prohibited
Cargo residues not considered harmful to the marine environment and not contained in wash water	Discharge permitted ≥12 nm from the nearest land and en route	Discharge prohibited	Discharge prohibited
Cargo residues not considered harmful to the marine environment contained in wash water	Discharge permitted ≥12 nm from the nearest land and en route	Discharge only permitted in specific circumstances <sup>1</sup> and ≥12 nm from the nearest land and en route	Discharge prohibited
Cargo residues considered harmful to the marine environment	Discharge prohibited	Discharge prohibited	Discharge prohibited
Cleaning agents and Additives <sup>2</sup> contained in cargo hold wash water	Discharge permitted	Discharge only permitted in specific circumstances <sup>3</sup> and ≥12 nm from the nearest land and en route	Discharge prohibited
Cleaning agents and additives <sup>2</sup> contained in deck and external surfaces wash water	Discharge permitted	Discharge permitted	Discharge prohibited
Carcasses of animals carried on board as cargo and which died during the voyage	Discharge permitted as far from the nearest land as possible and en route	Discharge prohibited	Discharge prohibited
All other garbage including plastics, domestic wastes, cooking oil, incinerator ashes, operational wastes, fishing gear and e-waste	Discharge prohibited	Discharge prohibited	Discharge prohibited
Mixed garbage	When garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.		

Source: (IMO, 2016).

<b>Exercises</b>	<ol style="list-style-type: none"> <li>1) How would you proceed in relation to the fact that no AWR was sent electronically to the previous port?</li> <li>2) How would you proceed in relation to the fact that the amounts reported in the WR for food waste were very different from the expected ones?</li> <li>3) How would you proceed in relation to the amounts of 'cooking oil' and 'food waste' retained on board at your port before departure and why?</li> <li>4) Would you consult any further document on board to understand the behaviour of the crew in relation to the handling of food waste?</li> </ol>
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Exercise #3	
<b>Scenario</b>	You were asked to inspect a vessel with an Exemption for ' <i>Mandatory Delivery of Waste from ships</i> ' between two national ports. On close inspection of the logbooks – the vessel had made 2 trips between these two ports for commercial reasons- it was noted that the conditions to have an exemption were not met: there was no evidence of frequent and regular port calls. Also, you examine the Exemption form on board, and you see that it has expired.
<b>Exercise</b>	How do you further proceed?