



PRÜF- UND ENTWICKLUNGSINSTITUT FÜR ABWASSERTECHNIK
AN DER RWTH AACHEN E.V.

Development and Assessment Institute in Waste Water Technology
at RWTH Aachen University

Evaluation of reception facilities and disposal conditions of cargo residues of solid bulk cargoes

HELCOM Cooperation Platform on Port Reception Facilities (IC CP PRF 2-2024), online, 1 February 2023

The Project



Title: "Evaluation of reception facilities and disposal conditions of cargo residues of solid bulk cargoes".

Client: Federal Maritime and Hydrographic Agency (BSH)

Project duration: October 2021 – August 2023

Project partners:

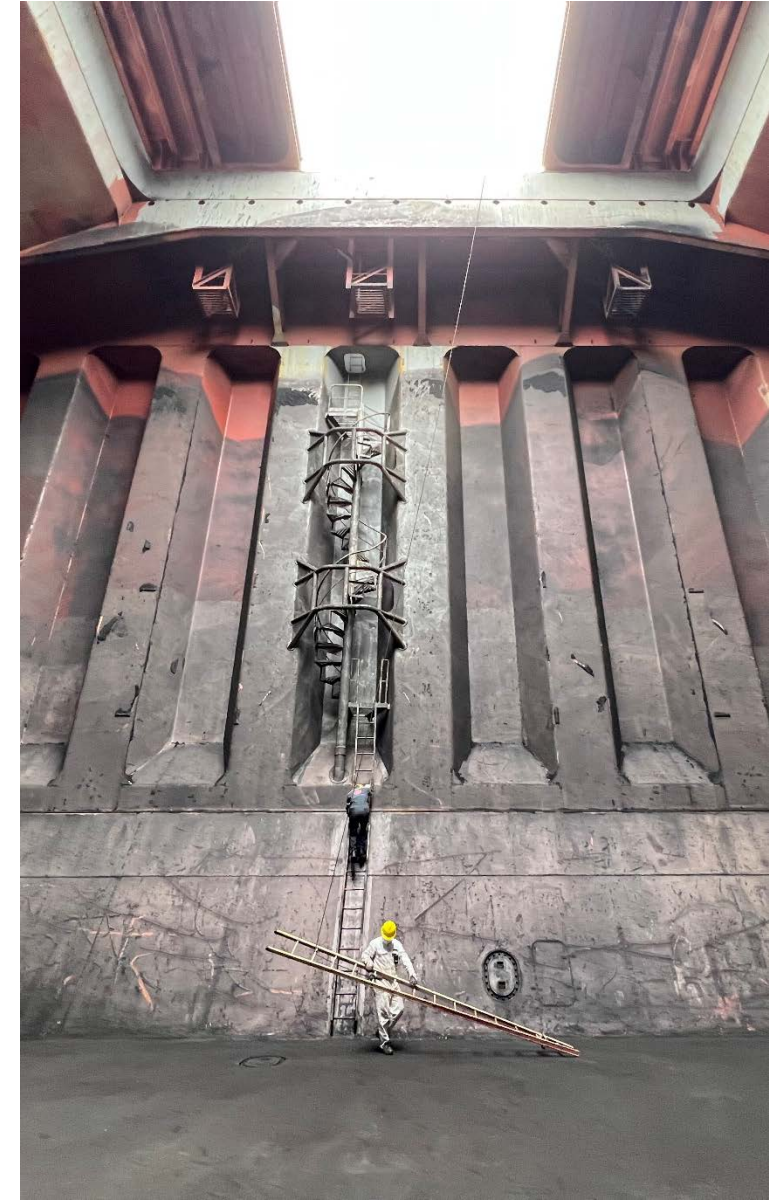
- Testing and Development Institute for Wastewater Technology at RWTH Aachen University e.V. (PIA e.V.)
- Testing Institute for Wastewater Technology GmbH (PIA GmbH)
- Chair of International Maritime Law and Environmental Law, International Law and Public Law at the Faculty of Law of the University of Hamburg

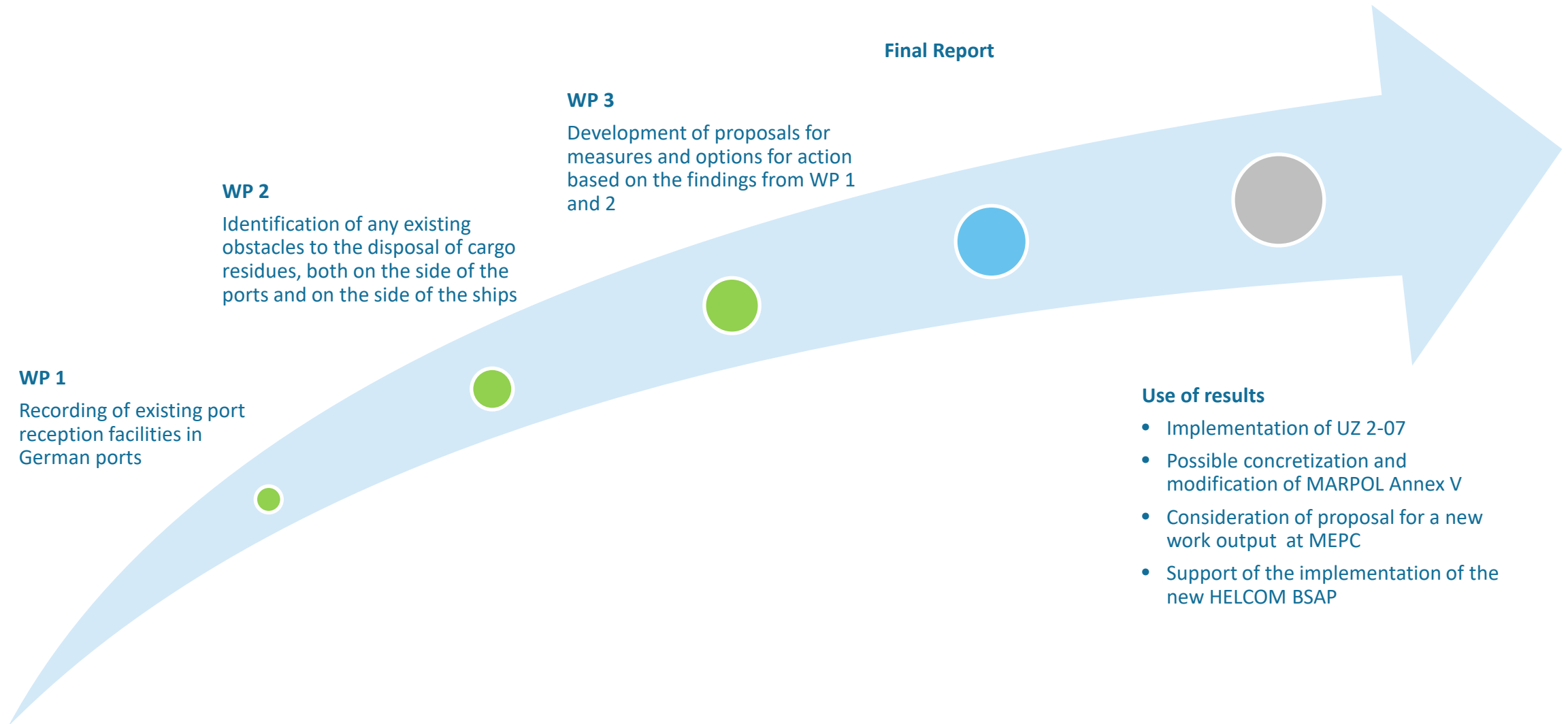
Consultative Group: including administrations, ports, water ways police, PSC, shipping industry, handling and disposal companies ...

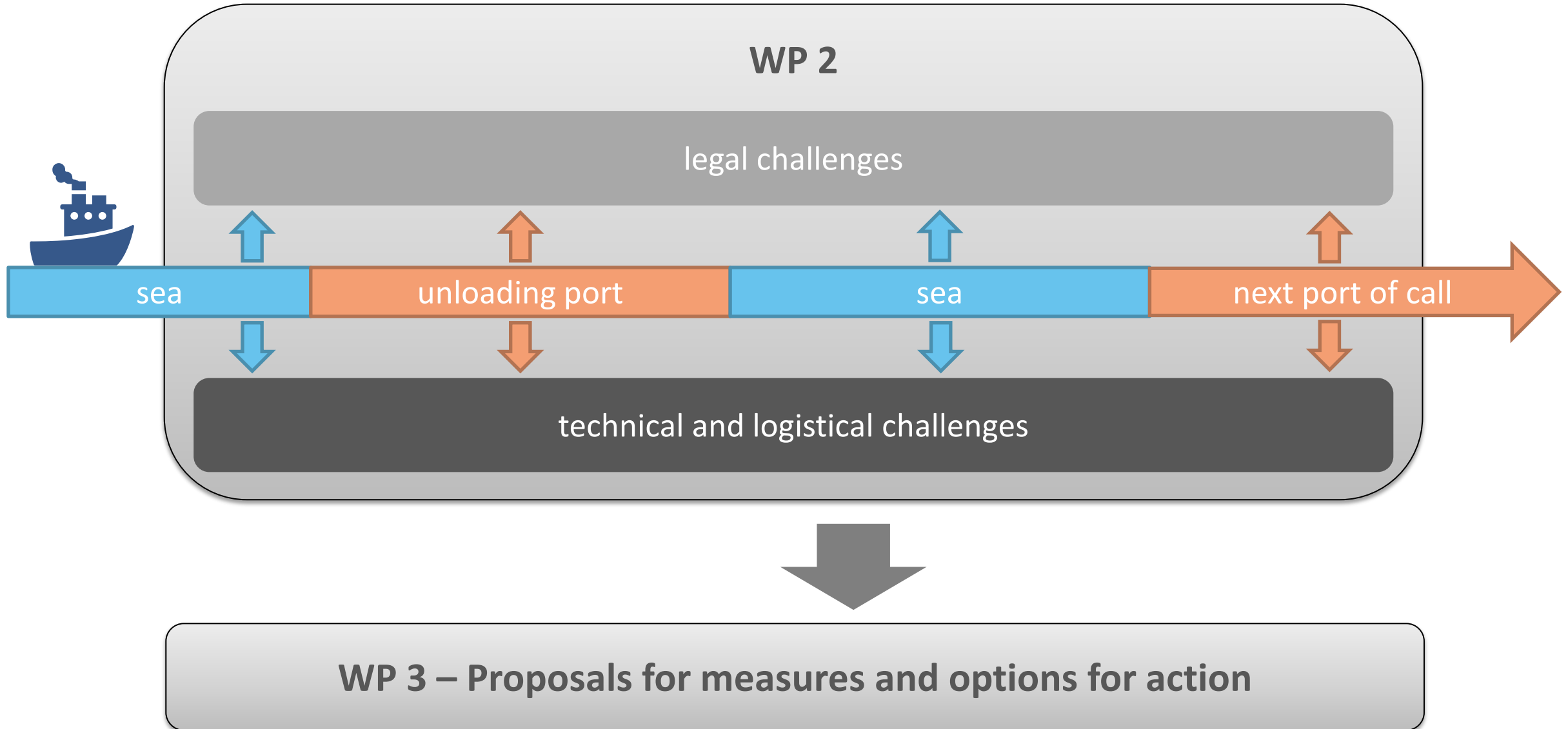


Background and Aim of the Project

- **German programme of measures for the implementation of the MSFD**
 - new measure UZ2-07 “Working towards a reduction in the discharge of cargo residues from solid bulk cargoes into the sea“
 - Project
 - covers scope of measure component 1 (possible need for concretization and amendment of MARPOL Annex V)
- **HELCOM Baltic Sea Action Plan (BSAP)**
 - “Study the adequacy and use of port reception facilities (PRF) for the International Convention for the Prevention of Pollution from Ships (MARPOL) Convention Annex V cargo residues by 2024 and, based on this information, ensure adequate PRFs in Baltic Sea ports for cargo residues classified as non-HME substances under MARPOL Annex V and further ensure incentives for ships to use them by 2027” (Action S17)
 - Project findings were communicated to IC MARITIME 2-2023







Example on Challenges and proposed actions



Challenge 8 - Insufficient options for entries in Garbage Record Book (GRB), Part 2

Description of the challenge

MEPC.277(70) requires a garbage record book (GRB) to be kept on board, documenting the discharges of cargo residues into the sea and the shore-based disposals to a PRF. The following figure shows the information contained in the GRB. It is basically divided into the categories "J" for non-HME cargo residues and "K" for HME cargo residues. For this purpose, the position of the ship at the beginning and end of the discharge and the quantity of cargo residues discharged by category must be entered for discharges into the sea. For disposals ashore, the quantity and, as a position, the corresponding port must also be entered. It is not clear from the wording of MEPC.277(70) whether shore disposals only have to be recorded if they are made to a PRF or whether disposals to a cargo handling company also have to be recorded. Correctly, however, cargo handling companies should be functionally classified as PRFs.

During a random check of the waste diaries as part of the questionnaire campaign, it was observed that the entries made are not always clear, as was confirmed by the enforcement authorities in the advisory group.

Example on Challenges and proposed actions

Description of the challenge

The following figure shows a random sample of a GRB:

J - Cargo residues (non-HME)			K - Cargo residues (HME)			
Discharges under regulations 4 (Discharge of garbage outside special areas) and 6 (Discharge of garbage within special areas)						
Date/Time	Position of the ship (latitude / longitude) or port if discharged ashore	Category	Estimated amount discharged		Start and stop positions of the ship for discharges into the sea	Certification/ Signature
			Into sea (m ³)	To reception facilities or to another ship (m ³)		
					START: 1300H $\phi = 47^{\circ} 15.4N$ $\lambda = 007-26.5W$	
		"J"	0.40 m ³ WHEAT		STOP: 1500H $\phi = 46-55.4N$ $\lambda = 007-44.4W$	
					START: 0900H $\phi = 25^{\circ} 33.9N$ $\lambda = 020-56.5W$	
			30.0 m ³ WATER		STOP: 1400H $\phi = 24^{\circ} 38.1N$ $\lambda = 021-22.9W$	

Example on Challenges and proposed actions



Description of the challenge

It shows that the entry for the discharge of wash water (line 4) was made without an indication of the waste categories J or K. It is therefore unclear which category of cargo residues was discharged or whether only wash water without cargo residues was discharged to sea. As reported in the advisory group, the quantities of only wash water are often entered in the GRB when cargo spaces are washed for the second time. However, the entries in the GRB are intended for the discharge and disposal of cargo residues of waste categories J and K, not for pure wash water.

In the given entry, it is unclear whether the entry is incorrect, the contained cargo residue was just not entered or if pure wash water was discharged, which normally wouldn't have to be entered in the GRB. It could not be clarified on board why a quantity of wash water was entered here without specifying the cargo residue.

However, it shows that it is not sufficiently clear from the current version of the GRB what information is to be entered.

Example on Challenges and proposed actions



Proposed Action 1 (C8)	Provide guidance on entries in the GRB, Part 2 and insert an additional column for wash water
Objective and detailed description of the action	<p>As the description of the challenge shows, it is not exactly clear for the ship's crew what entries have to be made. A clarification, e.g. in the form of a "unified interpretation" with instructions for making entries, would be advisable.</p> <p>This would also support the water police for their inspections of ships, in which the ship equipment, approvals and documentation required by MARPOL are checked on board.</p>
Level of implementation	legal
Implementation of the action through	IMO
Affected legislation	MARPOL, Annex V
Further remarks	-

Challenges (C) and associated proposed actions



C1: Insufficient accessibility and availability of information on the use of Port Reception Facilities (PRF)

Proposed actions:

- National coordination of the data entered in the GISIS database
- Adaptation of GISIS regarding cargo residues
- National guidance on port waste management plans (PWMP) according to the PRF Directive

C2: No statistical recording / documentation of quantities of cargo residues

Proposed actions:

- Evaluation of reported quantities in the National Single Window (NSW)
- Requirement on data collection of landed / disposed quantities of cargo residues

C3: Lack of clear distinction between cargo residues being product or waste

Proposed actions:

- Clear classification of product residues as product or waste taking into consideration the cleanliness of cargo holds

Challenges (C) and associated proposed actions



C4: No distinct waste code

Proposed actions:

- Introduction of a distinct waste code
- Guidance on data collection of landed /disposed quantities of cargo residues

C5: Lack of definition on cleanliness of cargo holds after unloading

Proposed actions:

- Definition on cleanliness of cargo holds and unloading condition

C6: Exemption of cargo residues from the cost recovery system

Proposed actions:

- Increasing the attractiveness of onshore disposal by inclusion in the cost recovery system

Challenges (C) and associated proposed actions



C7: NSW reporting data on disposal of cargo residues inconclusive

Proposed actions:

- Adaptation NSW - reporting data
- Adaptation NSW - declare disposals via the handling companies via NSW
- Adaptation NSW - documentation of disposal quantities of the cargo handling companies

C8: Insufficient options for entries in Garbage Record Book (GRB), Part 2

Proposed actions:

- Provide guidance on entries in the GRB, Part 2 and insert an additional column for wash water

C9: National implementation of PRF Directive partly differs in German federal states

Proposed actions:

- Unification of the implementation laws for the PRF Directive at the state level
- National guidance on port waste management plans (PWMP) according to the PRF Directive

Challenges (C) and associated proposed actions



C10: Non-availability of PRF (volumes, disposal times, waste originating from other ports, costs)

Proposed actions:

- Exchange between relevant stakeholders to coordinate joint disposal solutions
- Definition of cleanliness of cargo holds and unloading condition

C11: No official confirmation in case of PRF unavailability

Proposed actions:

- Official confirmation as evidence in case of unavailability of PRFs

C12: No local disposal option (for wash water)

Proposed actions:

- Assessment of the environmental acceptability of the disposal option

Challenges (C) and associated proposed actions



C13: Limited possibilities for control by authorities

Proposed actions:

- National coordination of the data entered in the GISIS database
- Adaptation of GISIS regarding cargo residues
- National recommendation for action on port waste management plans (PWMP) according to PRF Directive
- Clear classification of product residues as product or waste
- Adaptation NSW - documentation of disposal quantities of the cargo handling companies
- Specify and clarify entries in the GRB, Part 2
- Official confirmation as evidence in case of unavailability of PRFs

Download “Executive Summary and Excerpts”



The screenshot shows the BSH website interface. At the top, there is a navigation bar with the BSH logo and the text 'Das BSH. Schifffahrt. Klima. Daten. Und viel Meer.' followed by links for 'Kontakt', 'BSH-Login', 'Presse', 'Gebärdensprache', 'Leichte Sprache', and 'English'. Below this is a secondary navigation bar with 'Themen', 'Daten', 'Publikationen', and 'Das BSH'. A search bar with the placeholder 'Suchbegriff' and a magnifying glass icon is also present. The main content area features a breadcrumb trail: 'Startseite • Publikationen • MARPOL V: Executive Summary and Excerpts'. The title 'MARPOL V: Executive Summary and Excerpts' is prominently displayed. Below the title, the date 'Datum 11.10.2023' is shown. The main text reads: 'Evaluation of reception facilities and disposal conditions of solid bulk cargo residues Executive Summary and Excerpts of the Final Report: Challenges and proposed actions'. Further details include 'MARPOL V', 'Projektlaufzeit: 2021 - 2023', 'Erscheinungsjahr: 2023', and 'Finanzierung durch: Bundesamt für Seeschifffahrt und Hydrographie'. A download link is provided: 'Herunterladen (PDF, 1MB, Datei ist nicht barrierefrei)'. On the right side, a dark blue sidebar contains a list of navigation options: 'Allgemeine Publikationssuche', 'Nautischer Produktkatalog', 'Bezugsquellen', 'Offshore', 'Meer und Umwelt', 'Nautik und Schifffahrt', 'Seekarten', 'Themenkarten und Atlanten', and 'BSH Informationen'.

https://www.bsh.de/DE/PUBLIKATIONEN/Anlagen/Downloads/Projekte/Final-Reports/MARPOL_V_Executive_Summary.html

TUG

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