

MARINE ENVIRONMENT PROTECTION  
COMMITTEE  
71st session  
Agenda item 4

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## **HARMFUL AQUATIC ORGANISMS IN BALLAST WATER**

### **Contingency planning for ballast water management, port solution**

**Submitted by the Netherlands**

#### **SUMMARY**

<i>Executive summary:</i>	In response to the outline for the development of contingency measures under the BWM Convention, as mentioned in annex 2 of document MEPC 70/WP.10, this document introduces a contingency solution for ships with non-compliant ballast water initiated by a port in the Netherlands. The solution, InvaSave, has been embedded in a full trajectory for building, testing, fitting in port, waste management and raising awareness. The InvaSave can be used as mobile port reception facility or contingency strategy for ballast water, and has received type approval by the Dutch maritime Administration.
<i>Strategic direction:</i>	7.1. and 13
<i>High-level action:</i>	7.1.2 and 13.0.3
<i>Output:</i>	13.0.3.1
<i>Action to be taken:</i>	Paragraph 15
<i>Related documents:</i>	BWM/CONF/36; MEPC 59/INF.24; MEPC 65/2/20; MEPC 66/INF.17, MEPC 66/2/8; MEPC 70/4/4, MEPC 70/4/5, MEPC 70/4/9, MEPC 70/4/12, MEPC 70/4/14, MEPC 70/4/15 and MEPC 70/WP.10

#### **Background**

1 MEPC 70 invited submissions to MEPC 71 with draft text for guidance on contingency measures under the BWM Convention, taking into consideration the outline and the relevant topics set out in annex 2 of document MEPC 70/WP.10, with a view to finalizing the guidance at that session.

2 A frequently flagged contingency measure by ships and ports is which action to take when ships that do not comply with the Ballast Water Management (BWM) Convention, call in a port after entering into force. These ships cannot discharge their ballast water, irrespective of the cause. Non-compliance can occur due to ballast water management systems that have not performed up to par or have failed altogether, or because the ship has no ballast water management system installed.

3 Those ships that need to discharge non-compliant ballast water could treat their ballast water in port upon calling instead of installing a ballast water management system on board. The Damen InvaSave "port contingency solution" has been developed as a spin-off of the North Sea Ballast Water Opportunity project (NSBWO, EU-Interreg, 2009-2014, MEPC 59/INF.24). NSBWO aimed to stimulate regional cohesion in ballast water management, according to article 13 of the BWM Convention, and in which ports participated. The port contingency solution as presented in this document can be used as a "blueprint" for any port that needs to address distinctive environmental and ship-related circumstances, for example ports bordering Particularly Sensitive Sea Areas (PSSAs).

### **Urgency of port contingency solutions**

4 Among ports and visiting ships, confidence must grow that concrete solutions are available to curb the problems associated with ballast water that might occur when ships call in a port. In light of the entry into force of the BWM Convention, a sound planning for port contingency solutions is crucial.

5 A port contingency planning with accompanying mobile and/or shore-side facilities might be a solution for environmental circumstances, such as:

- outbreaks of marine pests and/or pathogens in which a more stringent compliance regime for all ships might be necessary as a temporary measure; and
- distinctive local circumstances, such as the close vicinity of areas of special interest such as Particularly Sensitive Sea Areas (PSSAs) or other protected areas.

It may be a solution for ship-related circumstances, such as:

- the absence of a BWM system on board;
- a malfunctioning system or incident (emergency) that caused non-compliance with the D-2 standard; and
- economical backgrounds that may lead to situations where a BWMS on board is considered not feasible or not cost-effective because of, for example, the ballast capacity or frequency of port calls.

6 Port-based contingency planning could furthermore offer a means of compliance for repair yards, who (up to now) frequently drain unmanaged ballast water from the ballast tanks by opening the docking plugs.

### **The Damen InvaSave port contingency solution**

7 As early as 2010 Groningen Seaports, the port authority in Groningen in the north of the Netherlands, took the initiative to develop a port-based contingency solution for ships with non-compliant ballast water. The port borders the International Wadden Sea, an UNESCO World Heritage Site. The Wadden Sea has been designated as a PSSA since 2002.

8 An impetus to act on behalf of a port was roused in the early years of the North Sea Ballast Water Opportunity (NSBWO) project. During the meeting of NSBWO in 2012, representatives of Groningen Seaports met with the Dutch company Damen Shipyards. Damen Shipyards was asked to act as a ballast water contingency service provider and develop a solid port-based solution for non-compliant ships: the Damen InvaSave.

9 Stakeholders in this contingency solution included port authorities, waste management companies, a test facility for ballast water management systems, an ecological research institute and governmental representatives. The presence of these participants allowed for a complete trajectory that included having it built by the shipyard, making it fit for use in the port as a pilot. Alongside the materialization of the InvaSave, a certification trajectory was completed with the Netherlands Administration and a BWM test facility.

10 In addition to the guidelines contained in IMO resolution MEPC.174(58), the InvaSave has been tested directly after treatment to verify that the system can achieve D-2 compliance in its capacity as external treatment unit. The system is certified to achieve biological efficacy at direct treatment (T-0), with no required holding time.

11 The filter backwash of the InvaSave cannot be discharged to the surface water without treatment. Since the received ballast water can be taken in from a different area, the backwash contains potential invasive species. Therefore, a secondary treatment is installed to clean the filter backwash from organisms. The secondary treatment is included in the type approval certificate of the BWM system.

#### **Contingency solution as added value for a port**

12 A vessel that cannot discharge its unmanaged ballast water cannot load all the cargo the charter wishes the vessel to transport. The financial losses can lead up to hundreds of thousands of euros including consequential damage, claims, etc.

13 Ports should realize that Ballast Water Treatment Units (BWTU) will show defects during the implementation phase of the Convention. In the 6th GEF-UNDP-IMO GloBallast Partnerships Programme R&D Forum in Canada, a large shipowner presented that the defect rate of the 50+ BWTUs installed on his fleet is close to 40%. However, it is expected that the defect rate will go down in the further future.

14 A ballast water contingency service provider has an added value for ports dealing with distinctive environmental circumstances, and will prevent the financial losses due to ship-related circumstances.

#### **Action requested of the Committee**

15 The Committee is invited to note the information contained in this document and take action as appropriate.

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