

MARINE ENVIRONMENT PROTECTION  
COMMITTEE  
78th session  
Agenda item 4

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## HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

### Application of the BWM Convention to ships operating at ports with challenging water quality

Submitted by INTERTANKO

#### SUMMARY

*Executive summary:* This document presents updated information on reports submitted by INTERTANKO members relating to ships that experienced issues with their ballast water management systems (BWMS) at ports with challenging water quality (PCWQ)

*Strategic direction, if applicable:* 1

*Output:* 1.22

*Action to be taken:* Paragraph 12

*Related documents:* PPR 5/23/2; MEPC 71/4/21; MEPC 74/INF.22; MEPC 76/4 and Corr.1, MEPC 76/4/5, MEPC 76/4/6, MEPC 76/4/7, MEPC 76/4/8; MEPC 77/4/8, MEPC 77/16 and MEPC 77/WP.10

#### Introduction

1 This document is submitted as an update to document MEPC 76/4/7. It provides information on reports submitted by INTERTANKO's members on situations when their ships experienced issues with their ballast water management systems (BWMS) at ports with challenging water quality (PCWQ). To date, 468 reports have been received from 192 different ports.

2 Annex 2 of document MEPC 77/WP.10 identified fundamental elements that would need to be taken into consideration for future guidance on measures that may be taken when BWMS encounter challenging uptake water quality. During the Ballast Water Review Group discussion at MEPC 77, the Group recognized that the focus should be on situations where water quality effectively renders a BWMS inoperable (primarily due to parameters such as total suspended solids (TSS) and turbidity). The approach is based on when the BWMS may not be able to adequately treat water to meet the discharge standard due only to water quality issues (i) when the BWMS is effectively rendered inoperable; or (ii) if its self-monitoring system shuts the BWMS down due to exceedance of its operational limits; or (iii) based on clear criteria (e.g. TSS) for predetermining specific ports.

3 This document provides quantitative information relating to the ongoing practical and operational challenges associated with using BWMS in PCWQ.

### **Reports submitted by INTERTANKO's members**

4 Between 12 March 2021 and 2 March 2022, INTERTANKO collected information on ports where INTERTANKO's members experienced issues with their ships' BWMS due to port water conditions. A total of 468 reports have been received covering occurrences between July 2019 and March 2022.

5 While INTERTANKO's membership represents just over 4,100 tankers, the member companies that submitted reports to INTERTANKO regarding their experience at PCWQ operate only 1,126 tankers. Such a relatively high number of reports from such a small number of ships suggests that the scale of the challenge is significant, especially when reflecting on the world merchant fleet of 53,973 ships\*.

6 Reports have been received from ships at 192 ports where challenging water conditions affected the effectiveness of BWMS. A summary of some of the findings are reflected below:

- .1 there were 72 occurrences where the BWMS failed and 66 occurrences where the BWMS operated at reduced treatment rates due to the challenging port water conditions;
- .2 the BWMS needed to be bypassed on 176 occasions due to physical limits/failure. It was necessary to bypass the BWMS on 26 occasions due to system design limitation (SDL) exceedance; and
- .3 there were 14 occurrences that resulted in the ship being delayed for up to six hours with an additional three reports of ships being delayed between 10 and 18 hours.

7 INTERTANKO's members reported that reduced ballasting rates have been occurring primarily in ports with heavy sedimentation, which has caused filter blockages and reduced UV transmittance. This has caused the BWMS to either fail or require bypassing in order to complete the ballasting operation. Details of factors that attributed to the BWMS either failing or requiring bypassing are provided below:

- .1 16 occurrences related to filters being clogged due to muddy waters;
- .2 five BWMS tripped due to a motor fault; and
- .3 one incident of failure of multiple fuses of the ozone generator.

8 Other than issues related to heavy sedimentation, there were two occurrences of BWMS being affected by cold water in New Jersey and Nakhodka. The temperatures were reported to be 6°C and 1°C, respectively.

9 On 23 occasions, the affected ships subsequently conducted ballast water exchange plus ballast water treatment as a contingency measure.

10 On 10 occasions, the affected ships bypassed the BWMS due to clogged filters but found the system to be in good working condition.

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\* UNCTAD Handbook of Statistics 2021

11 The following 11 ports had eight or more occurrences related to BWMS not being able to operate at optimal level:

- .1 Thames, United Kingdom (31 reports);
- .2 Ohio, United States (17 reports);
- .3 New Orleans, United States (12 reports);
- .4 Tranmere, United Kingdom (10 reports);
- .5 Bintulu, Malaysia (9 reports);
- .6 Bordeaux, France (9 reports);
- .7 Hamburg, Germany (9 reports);
- .8 Alaska, United States (8 reports);
- .9 Brunsbuttel, Germany (8 reports);
- .10 Donges, France (8 reports); and
- .11 Haldia, India (8 reports),

**Action requested of the Committee**

12 The Committee is invited to take note of the information contained in this document.

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