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HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

Proposal to encourage port State control inspections during the experience-building phase

Submitted by BEMA

SUMMARY

Executive summary: This document presents industry views and information intended to encourage port State control conducting meaningful inspections of installed ballast water management systems on ships operating in their ports in accordance with the requirements of the Ballast Water Management Convention during the ongoing experience-building phase.

*Strategic direction,
if applicable:* 1

Output: 1.25

Action to be taken: Paragraph 22

Related documents: MEPC 71/WP.8; MEPC 77/4/3, MEPC 77/4/10; MEPC 78/4/1, MEPC 78/4/12, MEPC 78/INF.17; MEPC 79/WP.6; MEPC 80/4/4, MEPC 80/4/8, MEPC 80/INF.18; resolutions MEPC.290(71), MEPC.297(72) and MEPC.300(72)

Introduction

1 The experience-building phase (EBP) was established with resolution MEPC.290(71), through which the IMO urged "port States, flag States and other stakeholders to gather, prepare and submit data to the ballast water experience-building phase, taking into account the *Guidelines for port State control under the BWM Convention* (resolution MEPC.252(67)), *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)* (BWM.2/Circ.42/Rev.1) and the survey guidelines under the Convention".

2 A goal of the EBP is to monitor implementation of the Ballast Water Management Convention (hereafter, Convention), and, in particular, it established a non-penalization period for shipowners and operators while experience is gained. A report of the EBP data gathered and submitted to IMO was published as document MEPC 78/4/1.

3 As reported in that document, as well as other submissions to IMO, implementation of the Convention has revealed operational difficulties for ships operating in ports with challenging water quality (PCWQ). Reliability and suitability of ballast water management systems (BWMS) has been raised as a potential contributing factor. In-depth discussions regarding PCWQ took place during MEPC 77, 78 and 79 (MEPC 77/WP.10, MEPC 78/WP.8, MEPC 79/WP.6), and agreed guidance for industry is pending.

4 Challenges for port State control to conduct practical and meaningful sampling and analysis to test for compliance with the D-2 standard have also been reported (e.g. MEPC 78/4/12, MEPC 78/INF.17, MEPC 77/4/3, MEPC 77/4/10), and the EBP report indicated fewer than 1% of inspections involved sampling and analysis of ballast water. This aspect of implementing the Convention has been noted to relate, at least in part, to the lack of available verified compliance monitoring devices (CMDs).

5 Considering these specific implementation challenges, this document presents views and information from an industry perspective that highlights the importance of implementing the Convention and, specifically, port State control inspections.

Discussion

6 Through the data gathering and analysis plan (DGAP), the EBP allowed time for data gathering, analysis and reporting by all stakeholders (flag States, port States, industry NGOs, BWMS manufacturers, etc.) to support a broad evaluation of Convention implementation. In response to concerns of shipowners and operators (resolution MEPC.290(71)), the EBP also provides for non-penalization due to exceedance of the D-2 performance standard, provided that:

- .1 the BWMS is approved in accordance with regulation D-3.1;
- .2 the BWMS has been installed correctly;
- .3 the BWMS has been maintained in accordance with the manufacturer's instructions;
- .4 the Ballast Water Management Plan approved in accordance with regulation B-1 of the Convention has been followed, including the operational instructions and the manufacturer's specifications for the BWMS; and
- .5 either the self-monitoring system of the BWMS indicates that the treatment process is working properly, or the port State has been advised that the BWMS is defective prior to the discharge of any ballast water.

7 The EBP report (MEPC 78/4/1) noted that the 21 flag States that submitted data represented 16,199 ships to which the Convention applied. Of these ships, although the D-2 standard applied to 13,971, only 7,329 (51.8%) were reported to be fitted with a type-approved BWMS. The data additionally noted 512 deficiencies (of 45,170 individual inspections) and 758 accidents and defects relating to ballast water management operations (regulation E-1.7 of the Convention).

8 Document MEPC 78/4/1 further provided data from 19 Administrations submitted in accordance with the data gathering and analysis plan (DGAP) indicating approximately a 90% satisfactory inspection rate from 83,376 individual ship inspections. This data noted that the most frequently reported deficiencies were related to the Ballast Water Record Book (BWRB) (greater than 70% of deficiencies). Fewer than 1% of inspections were noted to have involved the collection and analysis of ballast water samples for compliance.

9 While document MEPC 78/4/1 provides a substantive data set, the number of Administrations that reported data (21) or that reported conducting port State control inspections (19) is limited. Recognizing that data collection faced some challenges (MEPC 78/4/1, paragraphs 2.1.5 to 2.1.7) and noting the non-penalization component of the EBP, the number of reported enforcement actions is also limited. For example, as noted in paragraph 5 above, document MEPC 78/4/1 (paragraph 12) highlights that just 51.8% of ships that were subject to regulation D-2 were fitted with a type-approved BWMS; however, a commensurate number of deficiencies were not reported.

10 As interested industry stakeholders, the Ballastwater Equipment Manufacturers' Association (BEMA) notes that it strongly supports wider implementation and regular performance of port State control inspections that verify the installation of BWMS type-approved in accordance with resolution MEPC.300(72) and BWMS use for all ballasting operations. In BEMA's view, the occurrence of port State control inspections has direct implications on related topics such as PCWQ, compliance testing and BWMS operation and reliability.

Ports with challenging water quality

11 As mentioned above in paragraph 2, implementation has revealed operational difficulties related to PCWQ for some ships in various global port locations. During MEPC 78 and 79, the Ballast Water Review Group (BWRG) continued the in-depth discussions that began during MEPC 77 regarding the fundamental issues of PCWQ. The discussions demonstrate divergent views on several aspects such as actions to be taken when PCWQ are encountered, how to determine whether water is indeed "challenging", what obligations crews have to attempt using the installed BWMS, and the overall approach of how to provide industry with needed guidance.

12 As noted in document MEPC 79/WP.6, BWMS maintenance, issues with crew training, and lack of familiarization with the BWMS are relevant issues that have been raised, and these can create situations where a BWMS is not operating as expected. The system may have the appearance of experiencing problems associated with PCWQ when, in fact, the water quality is not outside the normal operational parameters of the system, when properly installed, operated, maintained and repaired (when necessary) by an effective and trained crew. Port State control inspections can identify these aspects of BWMS operations through inspection of onboard documentation (i.e. BWRB) and data from BWMS self-monitoring systems.

Compliance testing

13 The ability for ballast water sampling and analysis to be performed practically by port State control has been raised as a challenge for conducting port State control inspections (MEPC 80/4/4, annex 3, table).

14 At this time, there are no rapid compliance monitoring devices (CMD) which have been verified in accordance with a standardized protocol that can be used to confidently determine whether a discharge is compliant with the D-2 standard in a rapid manner. The most reliable method to determine compliance currently remains performing discharge testing with a qualified onboard science team or an independent third-party commercial testing organization. This creates an undue burden to port State control to conduct meaningful testing on a regular basis.

15 The report of the Correspondence Group on Development of a Protocol for Verification of Ballast Water Compliance Monitoring Devices was submitted to PPR 10 (PPR 10/17), and approval of a final protocol is pending. In the interim, and noting that document MEPC 78/4/1 indicated only 51.8% compliance with regulation B-3, BEMA encourages port States to conduct inspections related to the onboard compliance of ships with the Convention, including but not limited, to regulations B-1 (Ballast Water Management Plan), B-2 (Ballast Water Record Book) and B-3 (Ballast water management for ships), including the modified implementation schedule (resolution MEPC.297(72)). These are reliable and practical mechanisms by which compliance can be inspected, and that do not require biological efficacy testing using CMDs or other scientific protocols. As such, there is no need for port State control to wait for verified CMDs to begin conducting compliance inspections and contributing valuable data to the EBP.

Impacts to BWMS operation and reliability

16 Manufacturers want to have the installed BWMS operated regularly and maintained in accordance with the operations manual, as this helps to ensure system reliability and longevity.

17 A lack of compliance inspections can lead to a false sense of low risk for a ship to be found non-compliant as a result of the BWMS not operating properly. In turn, this can lead to BWMS not being operated for all ballasting operations, which can cause an installed BWMS to sit idle for extended periods of time. Low risk for being found non-compliant can have the unintended consequence of incentivizing ship owners to defer maintenance on the BWMS. Each of these situations increases the chances of mechanical failure, similar to what can be expected of any other machinery utilized in onboard or onshore applications.

18 Considering the emphasis placed on the need for BWMS that operate reliably, this highlights the necessity for compliance inspection data that can identify the root cause for a BWMS to be reported as non-operational. For instance, a compliance inspection can help determine if a BWMS was fully operational before the ship encountered CWQ and if the BWMS was fully operational after leaving a PCWQ (i.e. the failed operation was solely due to CWQ). A compliance inspection can also help determine if a BWMS has been operated and maintained regularly, or if a reported failure is the result of the BWMS being allowed to sit idle or maintenance that has been deferred.

19 In this way, increased port State control inspections can positively impact gathering data required to better understand reported BWMS failures and the relation to operational reliability, and, therefore, the possible need to improve BWMS by modifying the equipment and existing type approval (reference MEPC 80/INF.18) versus the need to manage ballast water in PCWQ, as discussed in document MEPC 80/4/8.

Proposal

20 Noting that the Correspondence Group on Review of the BWM Convention established by the Committee at MEPC 78 (MEPC 78/17, paragraph 4.33) has completed its work and submitted a report to this session (MEPC 80/4/4), as well as the continuation of the EBP and the non-penalization element of the EBP through the Convention review stage as set out in operative paragraph 4 of resolution MEPC.290(71), the inspections noted in paragraph 15 above should be carried out in order to inform ships of noted deficiencies to the requirements of the Convention but should not result in penalization of the ship due to exceedance of the D-2 standard provided that the EBP conditions for non-penalization are met (see paragraph 5 above)

21 BEMA proposes that the Committee encourage all signatory Administrations of the BWM Convention to have increased focus on port State control inspections of ships and full implementation of the EBP established by resolution MEPC.290(71). BEMA believes this will have the benefit of increasing ships' use of BWMS and ensure that the goals of the Convention are met.

Action requested of the Committee

22 The Committee is invited to consider the proposal presented herein and take action as appropriate.
