

### MARINE ENVIRONMENT PROTECTION COMMITTEE 80th session Agenda item 4

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HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

Comments on the proposed temporary guidance on the application of the BWM Convention to ships operating in challenging water quality

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SUMMARY	
Executive summary:	This document comments on the proposed temporary guidance on the application of the BWM Convention to ships operating in challenging water quality conditions and suggests alternate principles for future discussion.
Strategic direction, if applicable:	1
Output:	1.25
Action to be taken:	Paragraph 9
Related documents:	MEPC 80/4/6, MEPC 80/4/8, MEPC 80/4/13, MEPC 80/4/16 and MEPC 80/4/17

### Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies (MSC-MEPC.1/Circ.5/Rev.4) and provides comments on document MEPC 80/4/8 (proposed temporary guidance on the application of the BWM Convention to ships operating in challenging water quality conditions), as well as suggesting alternate principles for discussion.

# Background

2 At the seventy-ninth session of the Marine Environment Protection Committee (MEPC), interested Member States and international organizations were invited to submit concrete proposals on guidance on the application of the BWM Convention to ships operating in challenging water quality (CWQ). Document MEPC 80/4/8 proposes temporary guidance for ships operating in challenging water quality conditions. The co-sponsors are grateful for the proposed temporary guidance and for a single document that covers the breadth of issues associated with CWQ.



3 The co-sponsors draw attention to several technical and conceptual flaws in document MEPC 80/4/8. This includes:

- .1 the overall guidance omits accountability of ballast water management system (BWMS) manufacturers and feedback mechanisms to them, Administrations, and recognized organizations;
- .2 process for determining CWQ conditions (paragraph 26 of the annex) and suggested mitigation measures in paragraph 27 of the annex; and
- .3 it is difficult to understand the compelling need for the proposed amendments to the Guidelines (G4) in paragraphs 22 to 24 of document MEPC 80/4/8.

### Guidance for ship crews as part of OEMM

4 Ideally, guidance should be included in the Original Equipment Manufacturer's Manual (OEMM). Document MEPC 80/4/13, paragraphs 10 to 13, discuss the crew's reliance on the OEMM for operating procedures under CWQ conditions. The co-sponsors believe it is premature to develop flow charts until OEMM procedures are agreed upon, nor do the co-sponsors believe it would be necessary to offer advice on laminating documents as described in paragraph 5 of document MEPC 80/4/8. Not including standard CWQ procedures in the OEMM may shift accountability away from BWMS manufacturers. The co-sponsors suggest all stakeholders share responsibility for effective results rather than holding only crew members accountable.

### Process for determining CWQ conditions and mitigating measures

5 Document MEPC 80/4/8, paragraphs 19 and 26 of the annex, introduces a process for determining CWQ conditions. Much of the guidance seems to repeat basic operational procedures and many crews may not find its seven steps (paragraph 19 of the annex) helpful in a port with high sediment level. Paragraphs 16 to 19 of document MEPC 80/4/6 explain how, in such cases, crew members are aware of CWQ conditions, but are unable to mitigate them because of technology gaps. Furthermore, the suggested mitigation measures in paragraph 27 of the annex to document MEPC 80/4/8 may not work since they do not mitigate CWQ issues. In the following points, these are explained:

- .1 The suggested mitigation measures to address any BWMS warnings and/or alarms in accordance with the OEMM are very basic and already in practice on board ships. Furthermore, it is not necessary to consult the manufacturer for each case, and in practice it will not be possible. The focus should instead be on developing comprehensive instructions for troubleshooting to ensure a smooth resolution. Document MEPC 80/4/13, paragraph 12, highlights the significance of clear instructions in the OEMM.
- .2 the manual backflushing controls for filters will not mitigate the problem. It is explained in document MEPC 80/4/6, paragraphs 22 and 23, how most pre-treatment filters switch to self-cleaning backwash mode repeatedly. The issue is not initiating a backflush, but the gap in the technology to remove particles stuck in the filter, which cannot be removed by repeated backflushing and require manual cleaning.
- .3 A suitable back pressure at a high differential filter pressure is suggested but not specified, as a result this mitigation measure is vague. The specified back pressure in the OEMM or the maximum achievable back pressure is not enough to remove particles stuck in the filter. A solution to this problem is exactly what the industry needs.

- .4 In IMO mode, most UV systems start at maximum intensity and step down when the D-2 standard is achieved, but remain at maximum intensity if the D-2 standard is not achieved. In USCG mode, UV intensity remains at maximum level regardless of whether the D-2 standard is achieved or not. It is unlikely that maximizing UV power and intensity will solve any problem since the BWMS cannot cope with turbid water even at maximum UV intensity, and continued use at maximum intensity reduces bulb life.
- .5 Mitigation measures such as progressive reduction of ballast water flow rates will only delay the filter clogging and not resolve the problem. Port congestion and increased GHG emissions are also factors to consider. The co-sponsors request that type approval standards be revised to develop BWMS that allow ships operating in CWQ ports to continue cargo operations in accordance with charter party requirements and agreed rates with the terminal.
- .6 Document MEPC 80/4/8, paragraph 28, contains normal practices that ship crews follow in normal conditions, and will not assist in resolving any CWQ issues either.

## Consideration of the Guidelines (G4)

6 In paragraphs 22 to 24 of document MEPC 80/4/8, the compelling need for the proposed amendments to the Guidelines (G4) is not adequately explained. In paragraphs 10 to 13, document MEPC 80/4/13 explains how there are very limited data to attribute BWMS bypass to crew training. Further training may not resolve CWQ issues. There may be underlying issues to be addressed such as OEMM lacking specific procedures for crews to follow under CWQ conditions and a technology gap that may prevent treating CWQ to D-2 standards.

7 CWQ discussions will need to prioritize resolution of fundamental issues and collaboration between stakeholders. Document MEPC 80/4/8, paragraphs 14 to 21, suggest three areas for future discussions. The co-sponsors disagree with elements in the proposed areas and suggest alternative principles in paragraph 8 for future discussions, based on the following:

- .1 There is a technology gap and it will not be fair to hold only the ship crew accountable for using BWMS in CWQ with cargo-related operational requirements. It is essential that all stakeholders have a sense of collective responsibility.
- .2 In the case of pre-emptive bypassing of BWMS, the concern is that, without proper control over BWMS bypassing, it is impossible to determine if the pre-emptive action was genuinely necessary. Additionally, document MEPC 80/4/16, paragraph 13, highlights factors shipowners and operators should consider when bypassing the BWMS, which should be the last resort option. Based on these considerations, the co-sponsors support the proposal for developing pragmatic principles for defining CWQ taking into account access to existing technology.
- .3 The post-bypass decontamination procedure does not appear to be based on any studies that measured remaining organisms in ballast water after bypass to support carrying out ballast water exchange for five times the tank volume. It is not clear why the use of exchange plus treatment be "approved" in the Ballast Water Management Plan, as the bypass and recovery are

unique operational events. Classification societies and flag Administrations are responsible for ensuring that only type approved BWMS are installed on ships, as outlined in document MEPC 80/4/17. There is a need to consider how the type approved BWMS could be improved to meet the D-2 requirements before further approvals for installation on ships are granted.

## Proposal

#### Alternate principles for future discussion on the matters related to CWQ

8 The co-sponsors request that the Committee consider the following issues when discussing CWQ matters at a future session:

- .1 develop pragmatic principles for defining challenging water quality taking into account access to existing technology;
- .2 collecting data from various stakeholders on ports with challenging water quality issues, through GISIS platform, so that expert groups can create water quality benchmarks and classify ports accordingly; and
- .3 how type approved BWMS can be improved to meet D-2 standards while maintaining cargo operations as per terminal rate and charter party requirements under CWQ condition.

### Action requested of the Committee

9 The Committee is invited to consider the discussion in paragraphs 3 to 7 and the proposal in paragraph 8 and take action as appropriate.