



HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

Use of drinking water as ballast water

Submitted by Germany, Norway, The Netherlands, the United Kingdom and the International Chamber of Shipping

SUMMARY

Executive summary: This document discusses if drinking water is an additional ballast water management option. It shows an evaluation of compliance of drinking water from the European Union with the D-2 standard, it presents a possible application procedure for approval for the use of active substances in drinking water and it shows examples of possible additional other requirements or procedures.

Strategic direction: 7

High-level action: 7.1.2

Planned output: 7.1.2.3

Action to be taken: Paragraph 12

Related documents: MEPC 59/2/17, MEPC 59/24, MEPC62/24

Introduction

1. The Netherlands, in seeking to implement the Ballast Water Management Convention, has received an enquiry from industry as to whether drinking water, that has been taken from a public water system and used as ballast water, would comply with the Convention.

2. A comparable enquiry was made in document MEPC 59/2/17, in which the United Kingdom requested clarification from the Committee as to whether potable water, that is generated on board a ship and used as ballast water, would comply with the Convention. The Committee then noted the extensive discussions held by the Review Group on this matter, including the intent of the usage of the water, the definitions of ballast water and potable water, and the chemicals that could be potentially discharged (particularly residual chlorine) and agreed that if the usage is for ballast water then this should be subject to the Ballast Water Management Convention. As such, the Committee agreed that there are options available under the Guidelines (G8 or G9), as appropriate, or under the "Procedure for assessing other methods of ballast water management" and noted the intention to re-visit

this issue when this procedure would be finalized. The “Procedure for approving other methods of ballast water management in accordance with Regulation B-3.7 of the BWM Convention” has meanwhile been finalized and Resolution MEPC.206(62) was subsequently adopted on 15 July 2011. So the time has come to revisit this issue.

The Issue

3. Implementation of the Convention is likely to prove particularly difficult for smaller ships, such as offshore supply vessels, tugs and workboats and fishing vessels. These ships occasionally take on board or discharge small volumes of ballast water and are required to comply with the Convention. However, due to the limited availability of physical space to either retrofit or install on board a ballast water management system, compliance with the D-2 standard of the Convention will be challenging. Use of drinking water taken from a public water system as ballast water could provide a reasonable solution to enable smaller ships to comply with the Convention.

4. It is not expected that drinking water will be used in huge quantities though. That is because of the relative high costs of drinking water, especially for large vessels with a large amounts of ballast water. Furthermore there is the physical limitation of the drinking water being available during operations when ballasting is needed.

Drinking water as ballast water

5. We have has considered three elements to evaluate if drinking water is an additional ballast water management option:

1. Does drinking water comply with the D-2 standard?
2. What procedure for approval for the use of active substances in drinking water is needed?
3. Which other requirements or procedures are needed?

6. Does drinking water from the European Union comply with the D-2 standard? Drinking water from the European Union generally complies with the standards from The Drinking Water Directive (98/83/EC) of the European Union for the quality of drinking water that applies to public water systems. The European Drinking Water Directive have been compared with the D-2 standard of the Ballast Water Management Convention, as far as possible. It has been ascertained that the D-2 standard is not exceeding the standards in stringency.

	IMO BWM Convention D-2 standard	European Drinking Water Directive (98/83/EC) Annex I
Viable organisms ≥ 50 µm in minimum dimension	< 10 per m ³	not present in drinking water
Viable organisms < 50 and ≥ 10 µm in minimum dimension	< 10 per millilitre	not present in drinking water
Toxicogenic <i>Vibrio cholerae</i>	< 1 cfu per 100 ml	-
<i>Escherichia coli</i>	< 250 cfu per 100 ml	max. 0 cfu per 100 ml
Intestinal Enterococci	< 100 cfu per 100 ml	max. 0 cfu per 100 ml

7. Throughout the production process of drinking water a continuous measurement and control is normally being carried out, focusing on pathogens (e.g. E-coli and Enterococci) which have a typical dimension of 1-5 micrometres, well below the D-2 standard (10 or 50 micrometres). It can therefore be concluded that viable organisms with a larger minimum dimension than micro-organisms should not be present in drinking water from the European Union.

8. Can the use of active substances in drinking water be approved by the Organization? MEPC59 agreed already that there are options available under the Guidelines G9, as appropriate. However, the usual application procedure poses a problem in the case of drinking water. For approval under G9 the Administration of a Ballast Water Management System normally makes an application to the IMO, and GESAMP is asked to give advice for that application. The applicant Administration has to sign a Letter of Agreement as required by IMO Circular BWM.2/C trc.L2. The Administration will then pay the fee in connection with the proposal for approval, in respect of the services provided by the GESAMP-Ballast Water Working Group.

9. However, in the case of drinking water there is no clear singular administration or producer to which the proposal for approval can be assigned. A possible way forward could be that the Committee asks advice for approval of drinking water with specific characteristics to the GESAMP-Ballast Water Working Group. Fees for this advice could possibly be financed through the unspent balance of the GESAMP Trust Fund on BWM Convention.

10. Which other requirements or procedures are needed? The example of the United States could be taken as a first proposal. In its rule '*Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters*', the United States Coast Guard decided on March 23, 2012 to include an additional ballast water management option for use of drinking water from a U.S. public water supply meeting the drinking water standards. In order to make use of this additional ballast water management option, ships using drinking water from a public water supply as ballast water must maintain a record of which public water supply they received the drinking water and a receipt, invoice, or other documentation from the public water supply indicating that drinking water came from that system. Ships using drinking water from a public water supply must furthermore use such drinking water exclusively for ballast water under strict conditions. Ships using drinking water from a public water supply as ballast must have either (i) previously cleaned the ballast tanks (including removing all residual sediments) and not subsequently introduced ambient water; or (ii) never introduced ambient water to those tanks and supply lines.

11. Furthermore, requirements could be discussed to avoid too much discharge of drinking water in certain areas, e.g. including a range of ballast water capacity to be discharged.

Action requested of the Committee.

12. The Committee is invited to consider the information in this submission and take action as appropriate.
