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HARMFUL AQUATIC ORGANISMS IN BALLAST WATER

Proposal on guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks

Submitted by Japan, ICS, IACS and CLIA

SUMMARY

<i>Executive summary:</i>	This document provides draft guidance for the temporary storage of treated sewage and grey water in ballast water tanks. It takes into consideration related documents drafted for and discussed in prior sessions and seeks to incorporate such considerations into a revised guidance for the Committee's consideration and action as needed.
<i>Strategic direction, if applicable:</i>	1
<i>Output:</i>	1.25
<i>Action to be taken:</i>	Paragraph 10
<i>Related documents:</i>	MEPC 79/4/8, MEPC 79/4/11; MEPC 80/4/12 and MEPC 80/WP.13

Introduction

1 At MEPC 79, the Ballast Water Review Group (BWRG) agreed that a guidance for the temporary storage of treated sewage (TS) and grey water (GW) in ballast tanks should be developed to ensure this practice is completed in an environmentally sound manner, including measures for the avoidance of contamination of the ballast water tanks.

2 At MEPC 80, due to time constraints, the BWRG was unable to finalize a proposed draft guidance on the temporary storage of grey water or treated sewage in ballast water tanks. As such, the Committee invited interested Member States and international organizations to work through intersessional correspondence and submit further concrete proposals to this session for such guidance.

Discussion

3 The guidance should be developed using both documents MEPC 79/4/11 and MEPC 80/4/12 as the basis, while also taking into consideration elements of document MEPC 79/4/8.

4 According to these documents, the co-sponsors consider that there is consensus on the following points:

- .1 Grey water and/or treated sewage should not be mixed with ballast water. The ballast water tank should be emptied before and after the temporary storage of grey water and/or treated sewage.
- .2 The discharge of the ballast water should comply with the Ballast Water Management Convention. Treated sewage and grey water, when temporarily stored in ballast water tanks, does not change characteristics or function, and, therefore, are not considered "ballast water". The discharge of treated sewage should comply with MARPOL Annex IV.
- .3 The storage of untreated sewage and comminuted and disinfected sewage using a sewage comminuting and disinfecting system, in accordance with regulation 9.1.2 of MARPOL Annex IV, in a ballast water tank is outside the scope of this guidance.
- .4 The guidance should be developed to set out uniform procedures to ensure compliance with the Ballast Water Management Convention, particularly the D-2 standard, when the ballast water tanks are returned to ballast water storage.
- .5 When ballast water tanks are returned from TS/GW storage back to ballast water tanks, the ballast water tanks, pumps and pipelines associated with the ballast water tanks should be flushed. If the ship is unable to flush, these should be pumped with appropriate volume.
- .6 The hull strength and stability of the ship should not be compromised.
- .7 The procedure of tank flushing, etc., should be included in the Ballast Water Management Plan of the ship and subsequently be approved by the Administration.
- .8 The change in the type of stored water in the ballast water tank should be recorded in a Ballast Water Record Book.

5 Document MEPC 80/4/12 indicates that the ballast water tank is to be temporarily isolated from the ballast system during the temporary storage of TS/GW. Document MEPC 79/4/11 indicates that existing ships may have difficulties with physical separation or isolation of the pumps and pipelines from those of the ballast system. Document MEPC 79/4/8 indicates that the pumps and pipelines from TS/GW should be separated from those of the ballast system, or, at least, a means of physical isolation between the ballast system and TS/GW system should be provided. Means of isolation can include blanks, spectacle flanges, valves, pipeline blinds, etc. The co-sponsors are of the view that the ballast water tank should be temporarily isolated from the ballast system when the tank is temporarily storing TS/GW with appropriate measures.

6 The co-sponsors note in document MEPC 80/4/12 that its sponsor, IACS, has concluded that a requirement should be made for distinguishing between new ships and existing ships. MARPOL does not require mandatory holding tanks for the storage of TS/GW. Providing independent TS/GW holding tanks can be one option for new ships. However, some new ships may not be provided with such holding tanks. Considering these situations, the co-sponsors are of the view that this guidance should provide uniform procedures for ships, both existing and new, that need to utilize ballast water tanks for the temporary storage of TS/GW.

7 The co-sponsors note in document MEPC 79/4/8 that its sponsor, China, concludes that the dishwater from the kitchen should be skimmed or degreased before temporary storage in the ballast water tank. However, the co-sponsors are of the view that these issues are out of the scope of this guidance. MARPOL does not have any requirement for storing TS/GW. Regarding the water properties of TS/GW and the impact for tank coating by storing TS/GW, they should be assessed considering MARPOL. These issues should be included in the guidance after those assessments.

8 Regarding paragraph 4.5 of this document, the co-sponsors note that the co-sponsors of documents MEPC 79/4/11 and MEPC 80/4/12 conclude that any water used for flushing or pumping should meet the D-2 standard. Some delegations indicate that it may be difficult for ships installed with ballast water management systems with UV irradiating during both ballasting and deballasting processes to use any water meeting the D-2 standard for flushing or pumping. The co-sponsors note that document MEPC 80/4/12 concludes that it should be permitted for the same water from the same location to be used and discharged at the same location. The co-sponsors are of the view that the ship should select appropriate water, such as treated ballast water or generated fresh water, taking into account the subsequent ballast water management.

Proposal

9 In light of the discussion as written in paragraphs 3 to 8 above, the co-sponsors have prepared draft guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks, as set out in the annex of this document.

Action requested of the Committee

10 The Committee is invited to consider, with a view to approval, the draft guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks, as set out in the annex of this document, and take action, as appropriate.

ANNEX

DRAFT GUIDANCE FOR THE TEMPORARY STORAGE OF TREATED SEWAGE AND/OR GREY WATER IN BALLAST WATER TANKS

Introduction

1 The purpose of this guidance is to provide a procedure for the temporary storage of treated sewage and/or grey water in ballast water tanks.

2 Ship owners, ship operators, Masters, and Officers of ships with temporary storage of treated sewage and grey water in ballast water tanks should properly implement this procedure.

3 There are exceptional situations where, to comply with coastal State regulations or inadequate reception facilities at ports and terminals, it may become necessary to store treated sewage or grey water in ballast water tanks.

Definitions

4 "Ballast water" means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of the ship (article 1(2) of the BWM Convention).

5 "Treated ballast water" means water that is treated by a ballast water management system (BWMS) to comply with regulation D-2 of the BWM Convention.

6 "Treated sewage (TS)" means sewage that is treated by a sewage treatment plant in accordance with regulation 9.1.1 of MARPOL Annex IV.

7 "Grey water (GW)" means drainage from dishwater, galley sink, shower, laundry, bath and washbasin drains and does not include drainage from toilets, urinals, hospitals, and animal spaces, as defined in regulation 1.3 of MARPOL Annex IV, nor drainage from cargo spaces (paragraph 2.7 of resolution MEPC.227(64), as may be amended).

8 "Ballast water tank (BW tank)" means any tank, hold, or space used for the carriage of ballast water (paragraph 2.2 of Guidelines (G4) (resolution MEPC.127(53) as amended). As per regulation A-1.2 of the BWM Convention, "ballast water capacity means the total volumetric capacity of any tanks, spaces or compartments on a ship used for carrying, loading or discharging ballast water, including any multi-use tank, space or compartment designed to allow carriage of ballast water." Combined tanks are, therefore, regarded as ballast water tanks for the purposes of the BWM Convention.

General matters for application

9 Temporary storage of TS/GW in BW tanks should only be used as an option in specific ports and areas which restrict the discharge of TS/GW.

10 This guidance applies to a ship, which conducts ballast water management that at least meets the standard described in regulation D-2 of the BWM Convention before/after the temporary storage of TS/GW in BW tanks.

11 Mixing ballast water and TS/GW in a BW tank without carrying out the procedures of this guidance should be avoided.

12 The storage of untreated sewage in a BW tank is outside the scope of this guidance.

13 In case a ship stores TS/GW temporarily in its BW tanks, the ship should make periodic special considerations for those BW tanks' coatings to prevent corrosion.

General guidance

14 If the use of a particular BW tank is changed for the temporary storage of TS/GW in line with this guidance, such BW tank should be solely used for storing it. If the use of the BW tank needs to be reverted to storage of ballast water, the ship should follow this guidance again.

15 In case a ship uses BW tanks(s) to store TS/GW, the ship should meet the following technical measures when transferring TS/GW to BW tank(s):

- .1 TS and GW should be transferred one at a time.
- .2 Ships should take appropriate measures to prevent contamination of BWMS by TS/GW and to prevent accidental discharge of TS/GW within restricted waters. (e.g. closing the valves or using blanks, spectacle flanges and pipeline blinds or using isolated pump and pipeline, dedicated portable hose, and/or using a lockout/tagout).

16 In case a ship changes the use of a BW tank to store TS/GW, the BW tank should be properly emptied using the BWMS to remove any residual ballast water and sediments as far as practical (with reference to paragraph 1.3 of Guidelines (G4) (resolution MEPC.127(53) as amended). Use the ejector/eductor if possible.

17 In case a ship changes the use of a BW tank from TS/GW storage back to ballast water storage, the ship should follow the following procedures:

- .1 The contents of the BW tank(s) should be discharged. The BW tank, pipes, and dual-purpose pumps should be flushed with at least the same volume of the temporary stored TS/GW. If the ship is unable to flush, at least 3 times the volume of each designated BW tank(s) should be pumped consecutively.
- .2 Ships should use the appropriate water for flushing or pumping taking into account the subsequent ballast water management, such as treated ballast water or generated fresh water.

18 The hull strength and stability of the ship should not be compromised.

19 The arrangements for the temporary storage of TS/GW in the BW tanks and operations of the discharge of ballast water and TS/GW should adhere to the following principles:

- .1 the discharge of ballast water and sediments should be in compliance with the BWM Convention; and
- .2 the discharge of TS should be in compliance with MARPOL Annex IV where relevant. Any local TS/GW discharge requirements should also be considered.

20 The Ballast Water Management Plan (BWMP) of the ship should include a ship-specific change-over procedure, from ballast water storage to TS/GW storage and back to ballast water storage, including pump and piping associated with the dual-purpose BW tanks, with specific details on how the flushing is conducted.

21 The Ballast Water Record Book (BWRB) should have an entry with the type of water being stored. The following items should be recorded in the ship's BWRB as item code H (previous code 3.6) (additional operational procedure and general remarks):

- .1 date, time and location of change of the use of a BW tank;
- .2 type of water to be stored after the change of use (e.g. treated sewage, grey water or ballast water); and
- .3 implemented procedure for the change of the use of a BW tank (e.g. after the discharge of TS/GW, BW tank was flushed in accordance with the procedure described in the BWMP)

22 An entry should be made in the Sewage/relevant Record Book, which should at least include the following information:

- .1 the date, time, position of ship (latitude and longitude), and the estimated or measured amount of loading TS/GW of the BW tank; and
 - .2 relevant information about tank flushing before the transfer of the BW tank to BW tank, such as the date, time and location of tank washing; details of tank flushing water, such as generated freshwater, or treated ballast water.
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