

SUB-COMMITTEE ON BULK LIQUIDS AND
GASES
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Agenda item 4

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ADDITIONAL GUIDELINES FOR IMPLEMENTATION OF THE BWM CONVENTION

Proposed amendments to BWM.2/Circ.28 and resolution MEPC.175(58)

**Submitted by Liberia, the Marshall Islands, ICS, INTERTANKO, INTERCARGO,
InterManager, IPTA, IPPIC and NACE International**

SUMMARY

Executive summary: This document has been submitted to propose amendments to BWM.2/Circ.28 and resolution MEPC.175(58) as invited by MEPC 64. The proposed amendments are intended to improve the robustness and transparency of the Type Approval process and the associated approval documents and certificates.

Strategic direction: 2

High-level action: 2.0.1

Planned output: 2.0.1.8

Action to be taken: Paragraph 8

Related documents: BLG 17/2/1; MEPC 64/2/17; MEPC 64/2/18, MEPC 64/23 and MEPC 64/WP.8

1 The co-sponsors of this document fully support the practical and achievable implementation of international requirements for ballast water management and are of the view that the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention) is the most appropriate vehicle to achieve this objective.

2 The proposals contained in documents MEPC 64/2/17 and MEPC 64/2/18 were considered during the MEPC 64 deliberations on the need to revise the Guidelines for the approval of ballast water management systems (G8). The Committee decided not to open the Guidelines (G8) for revision at this stage and instead it was agreed that the proposals to improve the robustness and applicability of the Type Approval process contained in the two submissions should be taken into account by the expansion of BWM.2/Circ.28 and revision of resolution MEPC.175(58). BLG Sub-Committee was instructed to commence this work taking into account paragraph 16 and the text contained in annex 1 of document MEPC 64/WP.8 and the relevant submissions by Member States and observers (please refer to subparagraphs 2.38.4 and 2.38.5 of document MEPC 64/23).

Proposed amendments to resolution MEPC.175(58)

3 The co-sponsors believe that the revised text for paragraph 1.4 of resolution MEPC.175(58), as contained in 64/WP.8, provides a sound basis for improving the transparency of the Type Approval (TA) documentation. In particular, the co-sponsors support the inclusion in this revised text of salinity, temperature, total suspended solids as well as the need to provide access to the full-scale land-based and shipboard test results. Such information was commented on in documents MEPC 64/2/17 and MEPC 64/2/18 as being beneficial for inclusion in the TA documentation.

4 Section 1 of the annex to this document adds additional points to the draft text in MEPC 64/WP.8, paragraph 1.4, which the co-sponsors believe encompass additional matters and subsequent proposals provided during the Review Group discussion at MEPC 64 as well as additional points raised in documents MEPC 64/2/17 and MEPC 64/2/18. The proposals for new text in section 1 of the annex are provided in ***bold italics*** for ease of reference. The following provides a justification and background to three key proposed amendments contained in section 1 of the annex:

- Treatment rated capacity (TRC): the inclusion of subparagraphs 4.7 and 5.3 of the operative paragraphs are intended to cover the concerns regarding maximum, minimum as well as fluctuations in flow rates and their consequential impact on the ballast water management system (BWMS) such as filtration rates, as expressed in MEPC 64/2/17, paragraph 5.6 and MEPC 64/2/18, paragraph 10.4.
- Operating parameters of the BWMS during shipboard tests: the inclusion of subparagraph 6.2 stems from the need to ensure that a shipowner is able to determine the standard operating condition of the BWMS and what is required in terms of dosage, electrical current etc. to ensure the BWMS continues to treat the ballast water according to the discharge standard. Additionally, this may provide assurance that commercially available installed equipment conforms to the design used during testing under the Guidelines (G8) and as necessary the Procedure (G9).
- Energy efficiency of the BWMS: paragraph 6.3 is a direct response to the importance of ship energy efficiency and the adoption of amendments to MARPOL Annex VI. Shipowners and ship builders need to understand the significance of the BWMS in terms of energy efficiency and the impact on the vessel's Ship Energy Efficiency Management Plan.

Proposed amendments to BWM.2/Circ.28

5 Sections 2 and 3 of the annex to this document provide amendments to BWM.2/Circ.28 in line with both documents MEPC 64/2/17 and MEPC 64/2/18 as well as the outcome of discussion within the Review Group at MEPC 64 as reflected in paragraph 16 of MEPC 64/WP.8.

6 Section 2 of the annex to this document provides proposed amendments to expand BWM.2/Circ.28 in line with the issues identified in paragraphs 16.1, 16.2, 16.3, 16.4 and 16.7 of MEPC 64/WP.8.

7 Section 3 of the annex to this document provides additional amendments to BWM.2/Circ.28 as per paragraph 16.8 of MEPC 64/WP.8. The following provides a background and justification for these additional amendments:

- Ballast tank coatings: the proposal to amend paragraph 2.1 to reference the MEPC agreed corrosion test procedures that have been derived from the IPPIC and NACE standards which reinforces the Procedure (G9) will ensure that Administrations, BWMS manufacturers, shipbuilders and shipowners are aware of corrosion and coating testing and its significance in relation to the potential impact of the use of a BWMS that uses Active Substances on ballast tank coatings and other ship parts.
- BWMS installation safety and hazard assessment: the new text in paragraph 5.2.13 reflects the need to ensure that all relevant safety rules and recommendations from both the Organization and class societies are taken into account during the installation of the BWMS. This will provide an overview of the practical elements associated with the installation, operation and maintenance of the BWMS on ships in operation.
- Type Approval certificate and documentation: the amendments to paragraph 6.1 provide a direct reference to the Type Approval certificate and documentation which the co-sponsors feel has been expanded significantly following MEPC 64 to include additional data and information. As such the full documentation in the revised resolution MEPC.175(58) should be referenced in the Administration's submission to the Organization.

Action requested of the Sub-Committee

8 The Sub-Committee is invited to take into account the proposed amendments in this submission during its consideration of BWM.2/Circ.28 and resolution MEPC.175(58).

ANNEX 1

SECTION I - PROPOSED AMENDMENTS TO RESOLUTION MEPC.175(58)

Preamble text to be inserted:

"1 INVITES Member States, when approving a ballast water management system in accordance with the Guidelines for approval of ballast water management systems (G8), to report the following information to the Organization:

- .1 approval date;
- .2 name of the Administration;
- .3 name of the BWMS;
- .4 a copy of the Type Approval Certificate which includes details on all limiting conditions on the operation of the BWMS as follows:
 - .1 salinity;
 - .2 temperature;
 - .3 total suspended solids;
 - .4 minimum **and maximum** UV-Transmittance where appropriate;
 - .5 means to account for changes in UV-transmittance (including information on **reducing** flow-rates when transmittance is reduced) where appropriate;
 - .6 **Total Residual Oxidant (TRO)** level where appropriate;
 - .7 **minimum and maximum treatment rated capacity as verified by the full-scale land based and/or shipboard tests;**
 - .8 **limiting conditions which have been stipulated within the approval in accordance with Procedure (G9) as appropriate; and**
 - .9 any other limiting conditions which may render the system unable to meet the discharge standard in regulation D-2,
- .5 **an** annex to the Type Approval Certificate **which** contains the test results of the land-based and shipboard test runs, and information on testing conditions, including:
 - .1 numerical salinity range;
 - .2 temperature range;
 - .3 **flow rates and duration; and**
 - .4 **where appropriate transmittance and turbidity levels,**
- .6 access as soon as possible and preferably in electronic form, to the land-based test protocol according to which testing was undertaken, including details on:
 - .1 the use **and species** of natural, cultured or mixed test organisms;
 - .2 the shipboard test protocol **including the operating parameters of the system during successful treatment operations, for example dosage rates, UV intensity and electrical current applied;**
 - .3 **energy consumption of system under normal Treatment Rated Capacity (TRC);**
 - .4 the full test report of the land-based test including all **discounted**, failed and invalid tests;

- .5 the full test report of the shipboard test including all **discounted**, failed **and** invalid tests, and detailed information of the test set up and actual flow rate at each test cycle;
 - .6 QA/QC documentation of the test facility **and the protocols and procedures adopted; and**
 - .7 **national accreditation** of the test facility,
- .7 a description of the Active Substance(s), if employed; and
- .8 identification of the specific MEPC report and paragraph number granting Final Approval in accordance with the *Procedure for approval of ballast water management systems that make use of active substances (G9)*, adopted by resolution MEPC.169(57).
- 2 INSTRUCTS the Secretariat to make such information available by an appropriate means."

SECTION II – PROPOSED AMENDMENTS TO BWM.2/CIRC.28

Paragraphs 3.1.14 and 3.1.15 to be amended with a new paragraph 3.1.16 included as follows:

- ".14 clarified the following, when submitting the Type Approval application for full-scale testing:
- .1 verification of the different salinity ranges (fresh water, brackish and marine water) in which the BWMS will operate;
 - .2 verification of the different temperature ranges (cold, temperate and tropical conditions) in which the BWMS will operate;
 - .3 verification of the different sediment loads under which the BWMS will operate;
 - .4 verification of the minimum effective treatment flow rate as well as the maximum Treatment Rated Capacity (TRC) including the duration of these tests; and
 - .5 suggestions for improvements of the installation related to safety or additional testing R&D,
- .15 made all laboratory-scale and full-scale land-based test results and documentation available, including all discounted, failed and invalid tests, to the Administration; and
- .16 made all shipboard test results and documents available, including all discounted, failed and invalid tests as well as detailed information of the test set up and flow rate at each test cycle, to the Administration."

Insert new paragraphs 5.3.4, 5.3.5 and 5.3.6 as follows:

- ".4 in accordance with resolution MEPC.175(58)¹ the Type Approval Certificate should include details on all limiting conditions as follows:
- .1 salinity;
 - .2 temperature;
 - .3 total suspended solids;
 - .4 minimum and maximum UV-Transmittance where appropriate;

¹ New resolution MEPC.175(58) reference to be inserted once adopted.

- .5 means to account for changes in UV-transmittance (including information on reducing flow-rates when transmittance is reduced) where appropriate;
 - .6 Total Residual Oxidant (TRO) level where appropriate;
 - .7 the minimum effective treatment flow rate as well as the maximum Treatment Rated Capacity (TRC) as verified by the land based and/or shipboard tests;
 - .8 limiting conditions which have been stipulated within the approval in accordance with Procedure (G9), as appropriate; and
 - .9 any other limiting conditions which may render the system unable to meet the discharge standard in regulation D-2,
- .5 a BWMS that has not been tested within the conditions and/or ranges specified in 5.3.4 above and as per the Type Approval Certificate cannot be considered as being capable of operating outside the parameters under which it has been tested;
- .6 an annex to the Type Approval Certificate which should contain the test results of the land-based and shipboard test runs, and information on testing conditions in which the system has tested as operating correctly, including:
- .1 numerical salinity range;
 - .2 temperature range;
 - .3 flow rates and duration;
 - .4 where appropriate transmittance and turbidity levels."

SECTION III – ADDITIONAL PROPOSED AMENDMENTS TO BWM.2/CIRC.28

In paragraph 2.1, insert the following text as a new bullet between bullet points 7 and 8:

- "- relevant MEPC agreed corrosion testing recommended under the Procedure (G9) assessment contained in the GESAMP-BWWG methodology that has been derived from the IPPIC and NACE standard test methods to determine the potential corrosion effects from the use of BWMS using Active Substances; and"

In paragraph 5.2, replace subparagraph .13 with the following:

- ".13 a safety and hazard assessment of the installation, operation and maintenance of the BWMS on the shipboard test is undertaken and approved in line with the technical guidance developed by the Organization, and includes as a minimum:
- .1 any potential impact on the crew health and safety; and
 - .2 references to the classification society safety and hazard rules and recommendations."

Replace paragraph 6.1 with the following:

"6.1 The Administration should forward a report of the Type Approval process to the Organization including the relevant documentation as specified in resolution MEPC.175(58)²."

² New resolution MEPC.175(58) reference to be inserted once adopted.