

MARINE ENVIRONMENT PROTECTION  
COMMITTEE  
73<sup>rd</sup> session  
Agenda item 15

MEPC 73/15/XX  
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## WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

**New work output on efficient identification and enhancement of safety, technical, operational and documentation review and amendment for improvement and consistent implementation of the Ballast Water Management Convention**

**Submitted by Denmark, Ireland, Singapore and ICS**

### SUMMARY

*Executive summary:* This document proposes a new work output for the current biennium agenda of MEPC in relation to the “Efficient identification and enhancement of safety, technical, operational and documentation review and amendment for improvement and consistent implementation of the Ballast Water Management Convention” with a target completion date of 2023.

*Strategic Direction, if applicable:* 1 and 6

*Output:* No Related Provisions

*Action to be taken:* Paragraph 22

*Related documents:* MEPC 72/17, MEPC 72/4/4, MEPC 72/4/8, MEPC 72/4/9; MEPC 72/WP.9, A30/Res.1110

### Introduction

1 The International Convention for the Control and Management of the Ships Ballast Water and Sediments (BWM Convention) came into force on 8 September 2017. Under the BWM Convention, all applicable ships are required to comply with regulation D-1 (Ballast Water Exchange Standards) or regulation D-2 (Ballast Water Performance Standards) as applicable. Under the BWM Convention, a ship is defined as “a vessel of any type whatsoever operating in the aquatic environment and includes submersibles, floating craft, floating platforms FSUs and FPSOs”.

2 At MEPC 72, the Committee received submissions highlighting significant safety, technical and operational challenges faced by certain ship types in relation to meeting the requirements of with the BWM Convention. However, in the absence of an appropriate work output, the related important implementation discussions could not be undertaken nor could appropriate decisions be made by the Committee. Now that the BWM Convention has come into force and actual implementation is rolled out, the co-sponsors reasonably anticipate that there will be further similar significant implementation issues which will need to be raised in the near future for the consideration of this Committee or needing to be referred to the Pollution Prevention and Response Sub-Committee (PPR). The Committee may also recall that it has additionally previously identified, e.g. in detailed discussions concerning PSC inspections, matters relating to the text of the BWM Convention which ideally needed amendments but could only be addressed by adopting guidance since the Convention had at that time not entered into force. Now that the Convention has entered into force, the BWM Convention text should, as a matter of priority, be amended such that it incorporates the key elements of the guidance.

3 Taking into account the discussions and decisions of MEPC 72 on various submissions related to the BWM Convention, this document proposes a new work output for the *“Efficient identification and enhancement of safety, technical, operational and documentation review for the improvement and consistent implementation of the BWM Convention”* with a target completion date of end 2023.

### **IMO’s Objectives**

4 The proposed new work output will facilitate IMO member States and relevant stakeholders being able to share information and highlight areas of the BWM Convention that need *urgent* attention, discussions and appropriate decisions made in an efficient and timely manner. With the BWM Convention now in force, this process of information sharing and highlighting urgent implementation issues would facilitate more effective and consistent implementation – such as drawing up of relevant guidance documents, circulars, amendments to the BWM Convention. More effective and consistent implementation of the BWM Convention is aligned with the IMO’s Strategic Direction (SD) 1 (improve implementation) and SD 6 (ensure regulatory effectiveness).

### **Need**

5 With the BWM Convention coming into effect, the co-sponsors anticipate that safety, technical and operational issues or challenges will start emerging. These should be appropriately addressed in a timely manner for the effective and uniform implementation of the BWM Convention to ensure the safety of the ship and crew plus the protection of the marine environment. Examples of such issues or challenges are highlighted in MEPC 72/4/8 (submitted by Turkey) and MEPC 72/4/9 (submitted by Denmark/Singapore).

6 Apart from safety, technical and operational issues, there may also be instances where documentation matters need to be addressed. For example, based on discussion of the document MEPC 72/4/4 (submitted by IACS), the Committee invited Member Governments and international organizations to submit proposals to clarify when elements introduced by the *Guidance on contingency measures under the BWM Convention* should be included into ballast water management plans. However, there is no specific output as yet for such

submissions. Submissions of appropriate “contingency measures” accepted by port States are also expected to be shared in the future. Another example is: how compliance with the BWM Convention under Regulation B 3.6 (shore reception facility) / Regulation B 3.7 (other methods of ballast water management) can be reflected on the International Ballast Water Management Convention Certificate (IBWMC), which only has provision for endorsing compliance with Regulations D1, D2 and D4. There is also no work output for Administrations to submit proposals under Regulation B 3.7 (other methods of ballast water management) seeking for “approval in principal” by the Committee as alternatives to the requirements of ballast water management for ships. Furthermore, as highlighted in paragraph 2, there is a need for an output which facilitates urgent amendments to the text of the BWM Convention to take on board guidances and make the BWM Convention fit for purpose. One such example was the Committee’s adoption at MEPC 67 of Resolution MEPC.252(67) *Guidelines for Port State Control Under The BWM Convention* in which the Committee invites Governments to adopt a Four Stage Inspection Approach which differs from what is currently described in Article 9 of the Convention.

7 At this point, it is also worth recalling that MEPC 71, preferring to develop most improvements to the BWM Convention as a package following a systematic and evidence-based approach, and to identify aspects of the implementation that are working well and shed light on issues that require further attention, agreed to establish an experience-building phase (EBP) associated with the BWM Convention. MEPC 72 then approved the data gathering and analysis plan (DGAP) for the EBP. It is expected that the EBP data will be submitted as per the reporting template, collated, and further discussed at future Committee sessions. The co-sponsors of this document believe that the new work output will thus complement the discussions pertaining to the EBP for a holistic review and discussions within a reasonable period of time.

8 Further, this paper’s proposal for a new work output responds to the observations of the Ballast Water Review Group at MEPC 72. The group noted that, with the BWM Convention in force, the consideration of matters related to ballast water management should be done in a more organised manner, with a view that work under this general agenda item be structured under specific outputs.

### **Analysis of the Issue**

9 Before the BWM Convention came into force, general discussions on various matters under Agenda 4 “Harmful aquatic organisms in ballast water” were undertaken to facilitate the smooth entry into force of the BWM Convention. With the BWM Convention in force, there is a need to have a work output whereby experience, challenges, benefits, best practices, etc. could be shared and appropriate actions could be undertaken.

10 Currently there are only two work outputs (Reference A30/Res.1110), namely:

- a) Output number 1.14: Revised guidance on ballast water sampling and analysis; and
- b) Output number 1.15: Revised guidance on methodologies that may be used for enumerating viable organisms

While these two work outputs remain important, they are limited to matters on sampling, analysis and test methodologies. A more comprehensive discussion is required on safety, technical, operational and documentation issues of implementation, and how to address these in a practical, feasible and systematic manner. It is submitted that a new work output is desirable.

### **Analysis of the implications**

11 The new work output should not have any cost implications on the marine industry or lead to increased administrative burden. On the contrary, the output is intended to allow for a platform where real challenges or best practices can be shared, discussed and necessary actions taken. For example, document MEPC 72/4/9 (submitted by Denmark/Singapore) highlights the safety, technical and operational challenges faced by unmanned non self-propelled barges to conduct ballast water exchange to meet the D1 standards.

12 Similarly, no additional costs are anticipated for IMO Member States. Instead, IMO Member States (and industry) could benefit from the results of discussions on the various implementation issues e.g. guidance developed for better consistent global implementation and BWM Convention text amended as necessary. More consistent implementation globally should result in reduced port State interventions, and the reduced disruptions would benefit shipping operations and businesses.

13 Relevant changes to the BWM Convention, issuance of relevant circular(s), guidance(s) etc. may be anticipated in the future, based on the submissions under the new work output, if approved. However, such changes, if deemed not urgent by the Committee, could be undertaken by the EBP as a package. As such, documents submitted under the proposed new work output and the DGAP of the EBP could supplement each other to ensure proper consideration are given to proposals submitted under the new work output.

14 The proposed new work output contributes to the strategic directions in the Organization's Strategic Plan and would also not affect the timely delivery of other outputs in the Committee's existing work programme. As most of the pressing issues of the BWM Convention have been dealt with before the BWM Convention came into force, the number of documents submitted under the proposed new work output is expected to be manageable. In managing the anticipated work from the new work output, the Committee could forward relevant submissions to the review group (if established) for the EBP or PPR, as appropriate.

### **Benefits**

15 IMO, Member States and the maritime industry could realise the following benefits from the proposed work output:

- .1 demonstrable commitment to improving environmental benefits and effective compliance outcomes of the BWM Convention in line with IMO's new Strategic Plan;
- .2 potential safety issues minimised, environmental objectives achieved, issues related to sustainability of compliance addressed, appropriate and port State intervention implemented;

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- .3 best practices can be shared among Member States and the shipping industry helping to improve and align efforts for better consistent implementation;
  - .4 shipowners also stand to benefit where the work output produces more clear guidance or clarity on mandatory requirements;
  - .5 consideration of matters related to ballast water management will be done in a more organised manner given that the BWM Convention has now entered into force, and efforts aligned; and
  - .6 submissions and discussions under the new work output can supplement work on the EBP front, in addition to the DGAP.

### **Industry standards**

16 The current standards, methods and technology for managing ballast water do not cover some previously unforeseen challenges and issues which have started to appear since the entry into force of the BWM Convention. This new work output will contribute to the clarification or refinement of these standards, methods and technologies, so as to ensure that the BWM Convention continues to be globally implemented in a practical manner, and a level playing field is maintained.

### **Output**

17 The following three specific agenda items are proposed under this new work output for the Committee's consideration:

- .1 *“Safety, technical and operational matters for specific ship types for improved and consistent implementation of the Ballast Water Management Convention”* – under this item, the scope of documents submitted could include ship specific issues that need attention and guidance for complying with the mandatory requirements, including other methods of compliance that meet at least the same level of protection, as mandated by the BWM Convention, to the marine environment, human health, property or resources;
- .2 *“Documentation review of the Ballast Water Management Convention impacting the certification of a ship that require attention in addition to the Data Gathering and Analysis Plan (DGAP) of the Experience Building Phase (EBP)”* – noting that the EBP (Resolution MEPC.290(71)) urges 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 BWM Convention only, under this item, applicable changes to documentation could be proposed to refine current templates, guidelines, circulars, etc in addition to the DGAP of the EBP. Some examples are highlighted in para 6 above; and

- .3 *“Alignment of Article 9 of the BWM Convention in line with the invitation to Governments to adopt a Four Stage Inspection Approach as set out in Resolution MEPC.252(67) Guidelines for Port State Control Under The BWM Convention”.*

18 The discussions on all three proposed agenda items is expected to go beyond one biennium in order to be completed. A realistic timeframe is until 2023 (biennium agenda 2022 – 2023), with a possible extension if required. It is expected that, in view of the new installation timeline of ballast water management systems on ships and the timeline of the EBP adopted by MEPC 72, this proposed timeline for the new output (with the three agenda items) is reasonable.

### **Human Element**

19 The completed human factors checklist (MSC-MEPC.7/Circ.1) is set out in annex 2 to this document.

### **Priority/urgency**

20 The proposed agenda items are considered urgent for the following reasons:

- .1 certain information and issues have arisen prior to and since the BWM Convention came into force which require immediate attention for the effective, practical and safe implementation of the BWM Convention. There is however currently no relevant work output under which urgent issues already identified, and information relating to emerging issues concerning safety, technical and operational matters of the BWM Convention can be considered, analysed and addressed in a timely manner;
- .2 while the EBP DGAP is a step in the right direction for addressing implementation issues, the emerging implementation issues go beyond the EBP DGAP. These other issues should be addressed for safe, practical, effective and globally consistent implementation of the BWM Convention's requirements;
- .3 certain documentation issues, revision of guidelines, etc., could also be promptly initiated based on the experience gained and challenges faced.

21 As such, it is proposed that new high priority items listed in para 17 above should be added to the biennial agenda and work programme of the MEPC beginning in 2019.

### **Action requested of the Committee**

22 The Committee is invited to consider this proposal and to take action as appropriate for the following:

- .1 approve a new proposed work output incorporating the three priority agenda items (para 17);
- .2 approve the timeline for the proposed output (para 18); and

- .3 include the proposed output to the biennial agenda and work programme of the MEPC beginning in 2019 (para 21).

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### CHECKLIST FOR IDENTIFYING ADMINISTRATIVE REQUIREMENTS

<p>This checklist should be used when preparing the analysis of implications required in submissions of proposals for inclusion of outputs. For the purpose of this analysis, the term "administrative requirement" is defined, in accordance with resolution A.1043(27), as an obligation, arising from a mandatory IMO instrument, to provide or retain information or data.</p> <p><b>Instructions:</b></p> <p>(A) If the answer to any of the questions below is <b>YES</b>, the Member State proposing an output should provide supporting details on whether the requirements are likely to involve start-up and/or ongoing costs. The Member State should also give a brief description of the requirement and, if possible, provide recommendations for further work, e.g. would it be possible to combine the activity with an existing requirement.</p> <p>(B) If the proposal for the output does not contain such an activity, answer <b>NR</b> (Not required).</p> <p>(C) For any administrative requirement, full consideration should be given to electronic means of fulfilling the requirement in order to alleviate administrative burdens.</p>		
<p>1 Notification and reporting? Reporting certain events before or after the event has taken place, e.g. notification of voyage, statistical reporting for IMO Members, etc.</p>	<p>NR</p> <p>✓</p>	<p>Yes</p> <p><input type="checkbox"/> Start-up</p> <p><input type="checkbox"/> Ongoing</p>
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
<p>2 Record keeping? Keeping statutory documents up to date, e.g. records of accidents, records of cargo, records of inspections, records of education, etc.</p>	<p>NR</p> <p>✓</p>	<p>Yes</p> <p><input type="checkbox"/> Start-up</p> <p><input type="checkbox"/> Ongoing</p>
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
<p>3 Publication and documentation? Producing documents for third parties, e.g. warning signs, registration displays, publication of results of testing, etc.</p>	<p>NR</p> <p>✓</p>	<p>Yes</p> <p><input type="checkbox"/> Start-up</p> <p><input type="checkbox"/> Ongoing</p>
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
<p>4 Permits or applications? Applying for and maintaining permission to operate, e.g. certificates, classification society costs, etc.</p>	<p>NR</p> <p>✓</p>	<p>Yes</p> <p><input type="checkbox"/> Start-up</p> <p><input type="checkbox"/> Ongoing</p>
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
<p>5 Other identified requirements?</p>	<p>NR</p> <p>✓</p>	<p>Yes</p> <p><input type="checkbox"/> Start-up</p> <p><input type="checkbox"/> Ongoing</p>
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		



**CHECKLIST FOR CONSIDERATION OF HUMAN ELEMENT ISSUES BY IMO BODIES<sup>5</sup>**

<b>Instructions:</b> If the answer to a question below is:	
(A) <b>YES</b> , the preparing body should provide supporting details and/or recommendation for further work.	
(B) <b>NO</b> , the preparing body should give proper justification as to why human element issues were not considered.	
(C) <b>NA (Not Applicable)</b> – the preparing body should give proper justification as to why human element issues were not considered applicable.	
<b>Subject being assessed:</b> (e.g. resolution, instrument, circular being considered)	
<b>Responsible body:</b> (e.g. committee, sub-committee, working group, correspondence group, Member State)	
1. Was the human element considered during development or amendment process related to this subject?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2. Has input from seafarers or their proxies been solicited?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
3. Are the solutions proposed for the subject in agreement with existing instruments? (Identify instruments considered in comments section)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4. Have human element solutions been implemented as an alternative and/or in conjunction with technical solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
5. Has human element guidance on the application and/or implementation of the proposed solution been provided for the following:	
• Administrations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Shipowners/managers?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Seafarers?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Surveyors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
6. At some point, before final adoption, was the solution reviewed or considered by a relevant IMO body with relevant human element expertise?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
7. Does the solution address safeguards to avoid single person errors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
8. Does the solution address safeguards to avoid organizational errors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
9. If the proposal is to be directed at seafarers, is the information in a form that can be presented to and easily understood by the seafarer?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
10. Were human element experts consulted during development of the solution?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<b>11. HUMAN ELEMENT: Has the proposal been assessed against the factors below?</b>	
<input type="checkbox"/> CREWING. The number of qualified personnel required and available to safely operate, maintain, support and provide training for system.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> PERSONNEL. The necessary knowledge, skills, abilities and experience levels that are needed to properly perform job tasks.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> TRAINING. The process and tools by which personnel acquire or improve the necessary knowledge, skills and abilities to achieve desired job/task performance.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> OCCUPATIONAL HEALTH AND SAFETY. The management systems, programmes, procedures, policies, training, documentation, equipment, etc. to properly manage risks.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

<input type="checkbox"/> WORKING ENVIRONMENT. Conditions that have an impact on the safety, health and comfort of those working on board, such as noise, vibration, lighting, climate and other factors that affect crew endurance, fatigue, alertness and morale.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> HUMAN SURVIVABILITY. System features that reduce the risk of illness, injury or death in a catastrophic event such as fire, explosion, spill, collision, flooding or intentional attack. The assessment should consider desired human performance in emergency situations for detection, response, evacuation, survival and rescue and the interface with emergency procedures, systems, facilities and equipment.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> HUMAN FACTORS ENGINEERING. Human/system interface to be consistent with the physical, cognitive and sensory abilities of the user population.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<p><b>Comments:</b> (1) Justification if answers are NO or Not Applicable. (2) Recommendations for additional human element assessment needed. (3) Key risk management strategies employed. (4) Other comments. (5) Supporting documentation.</p> <p>The proposal is to identify and enhance technical, documentation and operational matters for improved and consistent implementation of the existing IMO instrument namely "Ballast Water Management Convention. This is not expected to change any existing settings with regards to human element, as it is primarily aims to enhance compliance and consistent implementation of the Convention to address environmental matters.</p>	