BWM Convention
Ratify, Implement, Enforce

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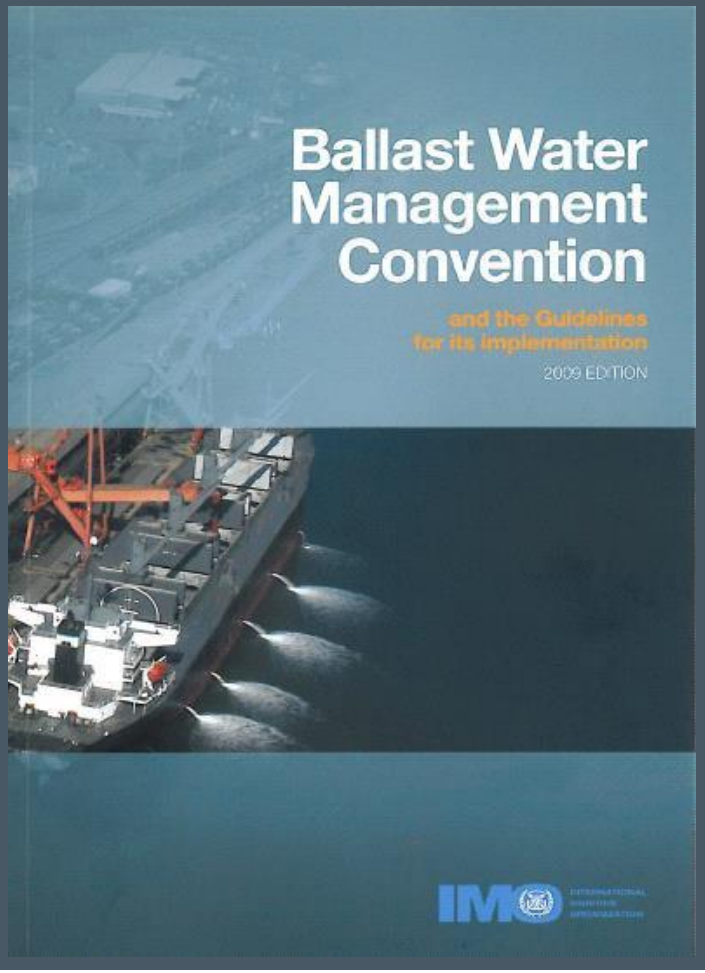
ICAIS Oct 2017

Ballast Water Management Convention



- Adopted 13 February 2004
- In Force Sept 8 2017
- Ratification 65 states
- 73.92% world GT

BWM Convention Text

- Articles
- Regulations
  - –General
  - –Management and Control Requirement
  - –Special Requirements for certain areas
  - –Standards for Ballast Water Management
  - –Survey and certification
- Appendices
  - –Form of BWM Certificate
  - –Form of BW Record Book

Guidelines under the BW Convention

1. MEPC.123(53) Guidelines for ballast water management equivalent compliance (G3) 2005
2. MEPC.127(53) Guidelines for ballast water management and development of ballast water management plans (G4) 2005
3. MEPC.140(54) Guidelines for approval and oversight of prototype ballast water treatment technology programs (G10) 2006
4. MEPC.149(55) Guidelines for ballast water exchange design and construction standards (G11) 2006
5. MEPC.151(55) Guidelines on designation of areas for ballast water exchange (G14) 2006
6. MEPC.152(55) Guidelines for sediment reception facilities (G1) 2006
7. MEPC.153(55) Guidelines for ballast water reception facilities (G5) 2006
8. MEPC.161(56) Guidelines for additional measures ballast water management including emergency situations (G13) 2007

Guidelines under the BW Convention

9. MEPC.169(57) Procedure for approval of BWM systems that make use of Active Substances (G9) 2008
10. MEPC.173(58) Guidelines for ballast water sampling (G2) 2008
11. MEPC.174(58) Guidelines for approval of ballast water management systems (G8) 2008
12. MEPC.209(63) Guidelines on design and construction to facilitate sediment control on ships (G12) 2012
13. MEPC.252(67) Guidelines for Port State Control under the BWM Convention 2014
14. MEPC.279(70) 2016 Guidelines for approval of Ballast Water Management Systems (G8)
15. MEPC.288(71) 2017 Guidelines for ballast water exchange (G6)
16. MEPC.289(71) 2017Guidelines for risk assessment under regulation A-4 (G7)

IMO Resolutions related to the implementation of the BWM Convention

1. A.1088(28) Application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments. 2004

2. MEPC.163(56) Guidelines for ballast water exchange in the Antarctic treaty area

3. MEPC.188(60) Installation of ballast water management systems on new ships in accordance with the application dates contained in the ballast water management convention (BWM Convention)

4. MEPC.206(62) Procedure for approving other methods of ballast water management in accordance with regulation B-3.7 of the BWM Convention

5. MEPC. 228(65) Information Reporting on Type Approved ballast water management systems

6. MEPC.253(67) Measure to be taken to facilitate entry into force of International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004

7. MEPC.287(71) Implementation of the BWM Convention

8. MEPC.290(71) The experience building phase associated with the BWM

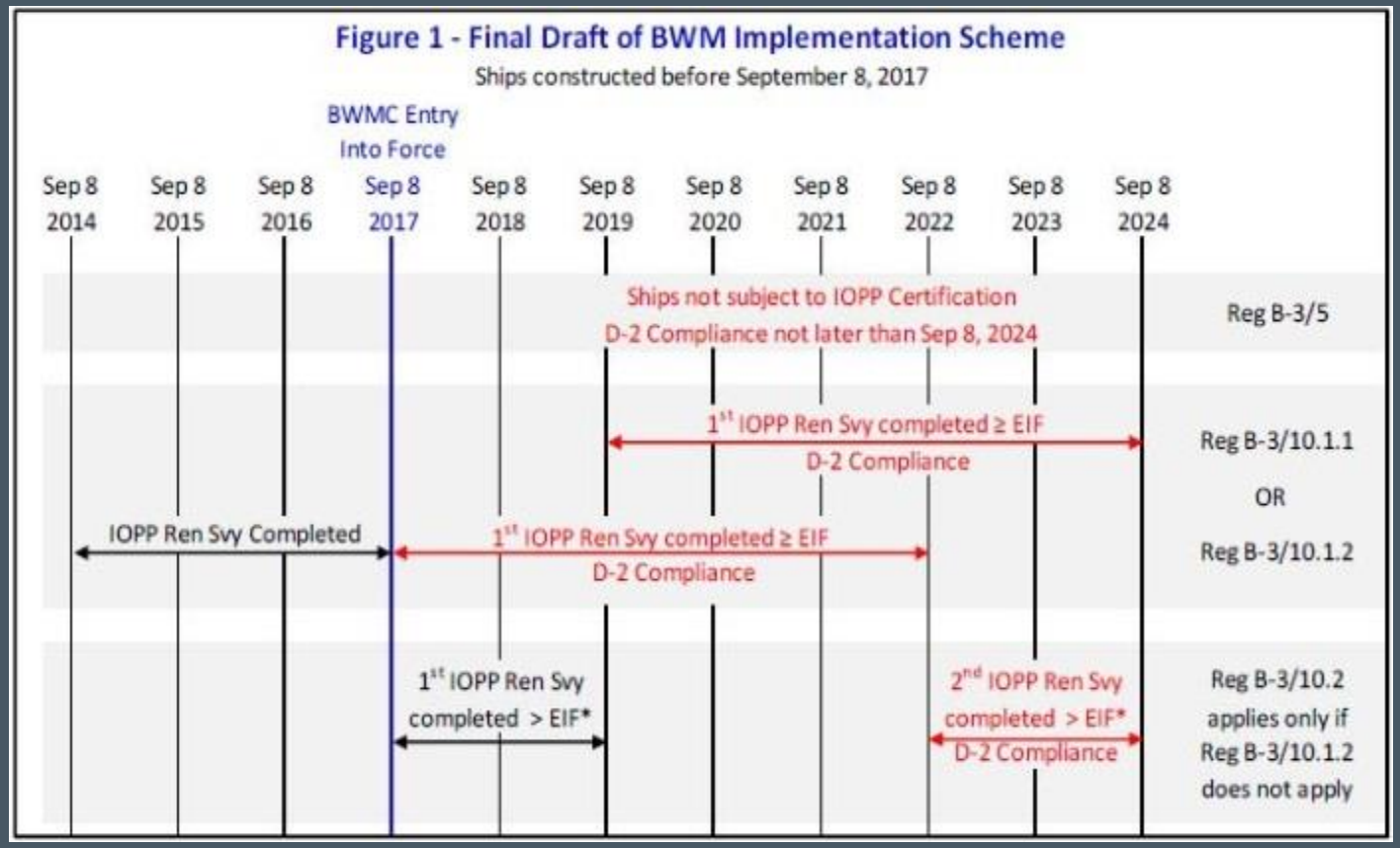
List of BWM Circulars related to the implementation of the BWM Convention

1. BWM.2/Circ.7 Interim Survey Guidelines for the purpose of the International Convention for the Control and Management of Ship's Ballast Water and Sediments under the Harmonized System of Survey and Certification (resolution A948(23))
2. BWM.2/Circ.8 Harmonized implementation of Guidelines for approval of Ballast Water Management Systems
3. BWM.2/Circ.13/Rev4 Methodology for information gathering and conduct of work of the GESAMP-BWWG
4. BWM.2/Circ.17 Guidance document on arrangements for responding to emergency situations involving ballast water operations
5. BWM.2/Circ20 Guidance to ensure safe handling and storage of chemical and preparations used to treat ballast water and the development of safety procedures for risks to the ship and crew resulting from the treatment process
6. BWM.2/Circ21 Engineering Questionnaire on Ballast Water Management Systems
7. BWM.2/Circ.27 Framework for determining when a Basic Approval granted to one ballast management system may be applied to another system that uses the same Active Substance or Preparation
8. BWM.2/Circ.29/Rev.1 Clarification regarding the application dates contained in Regulation B-3 of the BWM Convention
9. BWM.2/Circ.32 Applicability of the Ballast Water Management Convention to hopper dredgers
10. BWM.2/Circ.33 Guidance on scaling of ballast water management systems
11. BWM.2/Circ.34/Rev 6 List of ballast water management systems that make use of Active Substances which received Basic and Final Approval

List of BWM Circulars related to the implementation of the BWM Convention

1. BWM.2/Circ.40 Issuance of Ballast Water Management Certificate prior to entry into force of the BWM and Ballast Water Management Plans approved according to A.868(20)
2. BWM.2/Circ.42/Rev1 Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines (G2)
3. BWM.2/Circ.43 Amendments to the Guidance for Administrations on the type approval process for ballast water management systems in accordance with Guideline (G8)
4. BWM.2/Circ.44 Options for ballast water management for Offshore Support Vessels in accordance with the BWM Convention
5. BWM.2/Circ.45 Clarification of “major conversions” as defined in regulation A-1.5 of the BWM Convention
6. BWM.2/Circ46 Application of the BWM Convention to Mobile Offshore Units
7. BWM.2/Circ52 Rev 1 Guidance on entry or re-entry of ships into exclusive operation within the waters under the jurisdiction of a single Party
8. BWM.2/Circ.61Guidance on methodologies that may be used for enumerating viable organisms for type approval of Ballast Water Management Systems
9. BWM.2/Circ.62 Guidance on Contingency measures under the BWM Convention
10. BWM.2/Circ.63 Application of the BWM Convention to ships operating in sea areas where Ballast Water Exchange is accordance with regulations B 4.4 and D-1 is not possible

MEPC.287(71) Implementation of the BWM Convention

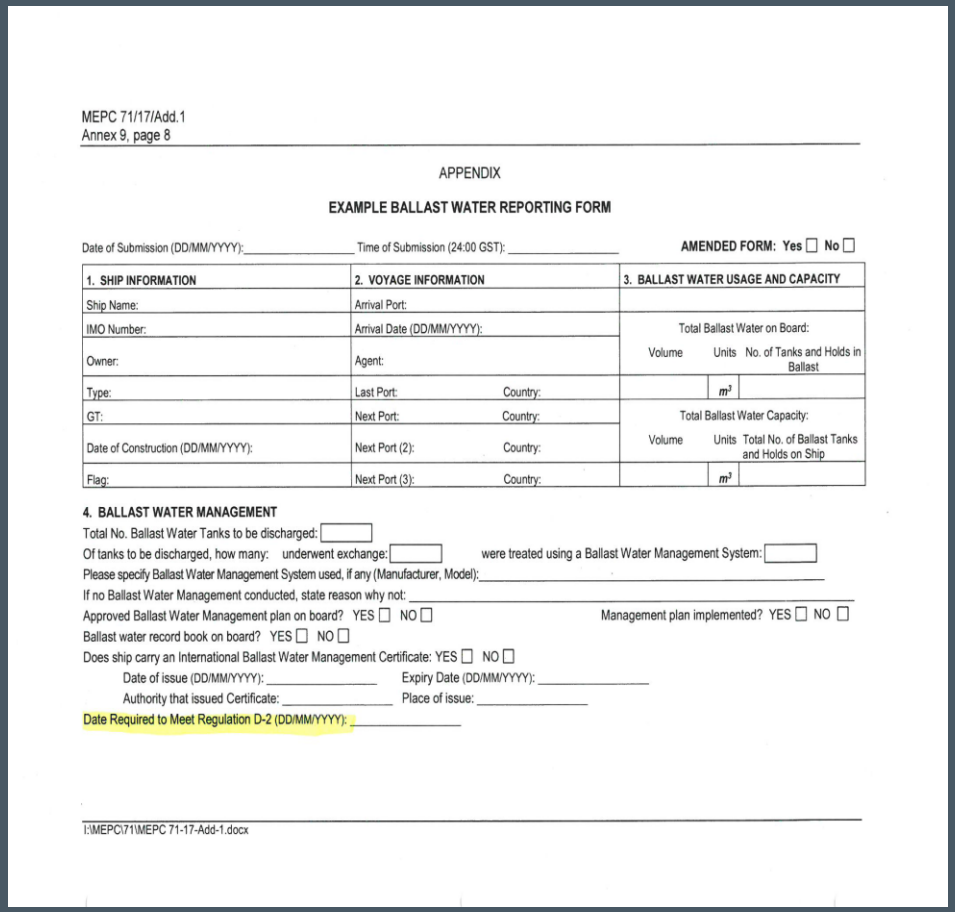


MEPC.287(71) Implementation of the BWM Convention

- PSC Consequence BWM to D-1 standard for much longer period
- All “new” ships built after EIF BWMS to D-2
- Dates IOPP
- BWM Certificate
- BW Record Books
- BWM Plans

MEPC.288(71) 2017 Guidelines for ballast water exchange (G6)

- Form updated to reflect longer period for D-1
- Reminder of Safety
- Information for Targeting, EBP,
- Specific Date required to meet D-2



MEPC 71/17/Add.1
Annex 9, page 8

APPENDIX

EXAMPLE BALLAST WATER REPORTING FORM

Date of Submission (DD/MM/YYYY):_____ Time of Submission (24:00 GST): _____ **AMENDED FORM: Yes ☐ No ☐**

1. SHIP INFORMATION	2. VOYAGE INFORMATION	3. BALLAST WATER USAGE AND CAPACITY
Ship Name:	Arrival Port:	
IMO Number:	Arrival Date (DD/MM/YYYY):	Total Ballast Water on Board: Volume / Units / No. of Tanks and Holds in Ballast
Owner:	Agent:	
Type:	Last Port: Country:	m^3
GT:	Next Port: Country:	Total Ballast Water Capacity: Volume / Units / Total No. of Ballast Tanks and Holds on Ship
Date of Construction (DD/MM/YYYY):	Next Port (2): Country:	
Flag:	Next Port (3): Country:	m^3

4. BALLAST WATER MANAGEMENT

Total No. Ballast Water Tanks to be discharged: ☐

Of tanks to be discharged, how many: underwent exchange: ☐ were treated using a Ballast Water Management System: ☐

Please specify Ballast Water Management System used, if any (Manufacturer, Model):_____

If no Ballast Water Management conducted, state reason why not: _____

Approved Ballast Water Management plan on board? YES ☐ NO ☐ Management plan implemented? YES ☐ NO ☐

Ballast water record book on board? YES ☐ NO ☐

Does ship carry an International Ballast Water Management Certificate: YES ☐ NO ☐

Date of issue (DD/MM/YYYY):_____ Expiry Date (DD/MM/YYYY): _____

Authority that issued Certificate: _____ Place of issue: _____

Date Required to Meet Regulation D-2 (DD/MM/YYYY): _____

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MEPC.289(71) 2017Guidelines for risk assessment under regulation A-4 (G7)

- A-4 May grant exemptions B-3 or C1
- Same Risk Area - Guidelines G7
- Science
- Cooperation between port pair administrations

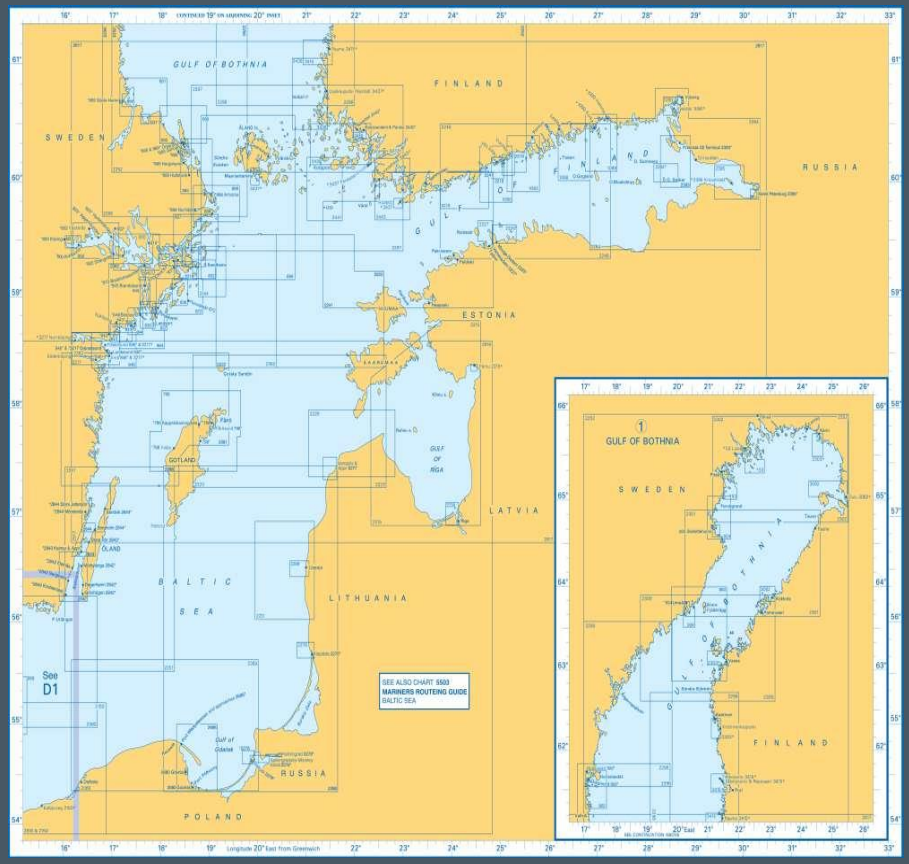
- PSC Consequence
- Recorded in Record Book
- Specified Ports
- 5 year period, with review

BWM.2/Circ.62 Guidance on Contingency measures under the BWM Convention

- Ships unable to manage BW D-1 / D-2
- Communication between ship / Port State
- Discharge acceptable to Port State
- Consider Environmental, Safety, operational , logistical issues
- PSC Consequence
- BWM Plan - Options
- Port State to report information re EBP

BWM.2/Circ.63 Application of the BWM Convention to ships operating in sea areas where Ballast Water Exchange is accordance with regulations B 4.1 and D-1 is not possible

- PSC Consequences
- Record Book
- Evidence that why BWE not conducted Reg B-4.5
- PS may require D-1 prior to entry into such areas
- Designation of areas for BWE (G14) MEPC.151(55)



Revision of Guidelines for approval of ballast water management systems (G8)

- **Revised 2016 *Guidelines (G8) adopted by MEPC 70***
- Administrations are recommended to apply the revised 2016 G8 as soon as possible when approving BWMS, but no later than 28.10.2018.

- BWMS installed on board ships on or after 28.10.2020 should be approved in accordance with the revised Guidelines (G8).

MEPC.279(70) 2016 Guidelines for approval of Ballast Water Management Systems (G8)

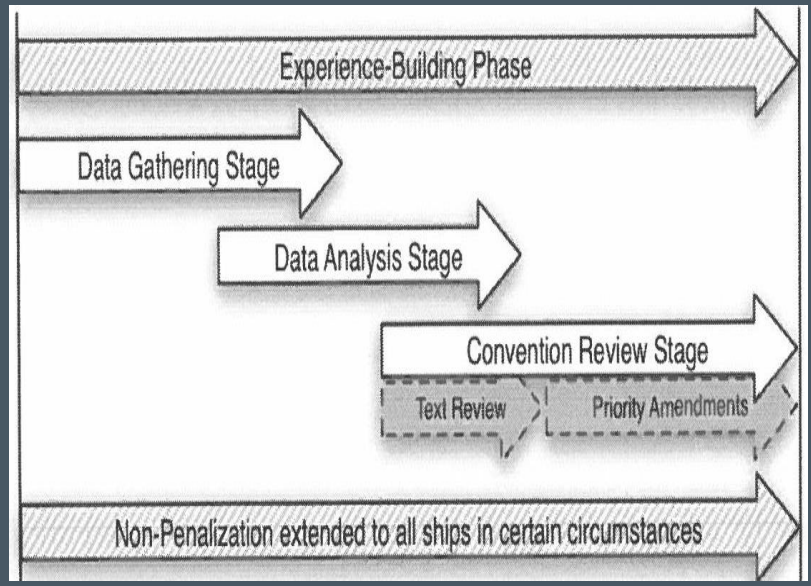
- Type approval of BWMS
- More robust test and performance specifications, detailed requirements for reporting, control and monitoring
- Reliability in various water conditions
- Temperature, salinity, turbidity
- Reporting limiting conditions
- Better standardization among test facilities

- Mandatory “Code” MEPC 72
- Resolution at MEPC 72

- PSC Consequences
- BWMS on ships approved to three different Type approval Guidance
- BWMP – Type approval Certificate
- Limiting Conditions
- BWMS approved to different Approval regimes
- Different expectations

MEPC.290(71) The experience building phase associated with the BWMC

- Monitor Implementation of BWMC. Identify what works and what requires attention
- Develop improvements as a package
- Submit data under PSC Guidelines MEPC.252(67)
- Guidelines on BW Sampling and analysis (G2) BWM.2/Circ.42/Rev1



MEPC.290(71) The experience building phase associated with the BWMC

- Non Penalization of Early Movers
- No requirement to replace first generation BWMS if operated/ maintained despite “occasional” lack of efficiency
- No sanctions, warning, detention due to occasional exceedance of D-2

PSC Consequence

Documentation to support Non Penalization

G(6) form, BWMP Sample.

Sampling / Analysis D-1

- Sampling of BW Tanks
- Looking for evidence of exchange if PSC warrants
- For fresh water ports salinity easy indicative tool
- Indicative Analysis – PSC
- Detailed analysis – experts

Indirect Sampling for PSC

- D-1 Salinity
- Onboard device on BWTS to monitor efficacy
- Indirect measure
- Total UVT
- Residual Chlorine / Oxidant
- Electrolytic Voltage
- Other info Start / Stop GPS Coordinates dependent upon vendor

Sampling / Analysis D-2

- Taken from BW during discharge
- Representative of the whole discharge
- Sampling Ports supplied by shipyards often not consistent with Protocols under Guidelines G(2)

Sampling / Analysis D-2

- Multiple tools now available for indicative analysis
- Technology and science advancing quickly
- Research continues to understand tool limitations (certainty)
- Ability to contract??

BWM.2/Circ.13/Rev4 Methodology for information gathering and conduct of work of the GESAMP-BWWG

- GESAMP – BWWG
- OSH
- Models for human Exposure
- Basic / Final Approval
- Worst case scenario
- 4 hrs contact exposure

III September 2017

- **GUIDELINES FOR SURVEYS FOR THE INTERNATIONAL BALLAST WATER MANAGEMENT CERTIFICATE**
- (BI) 1.1.2.18 *bis*
- Verifying that an operational test of the ballast water management system was carried out based on the installation commissioning procedures and that documented evidence is provided which shows compliance of the treated discharge ballast water during the above mentioned test with regulation D-2 through sampling and analysis based on applicable guidelines developed by the Organization.
- To MEPC

Thank you for your attention!

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Chair of IMO Ballast Water Review and Working Groups