



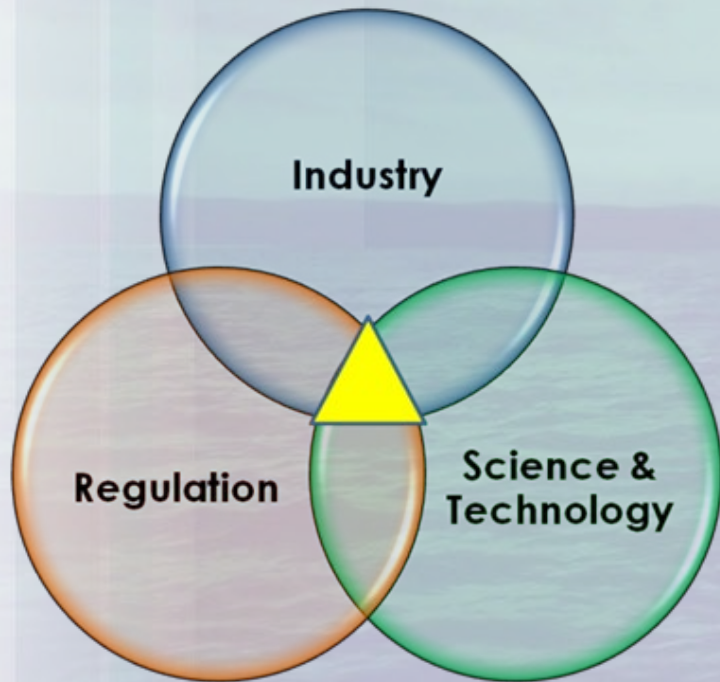
enviromanagement

Pacific Ballast Water & Biofouling Group Meeting
29 – 30 April 2025
Long Beach, CA

EVOLUTION OF AIS MANAGEMENT

UPDATES FROM IMO'S MEPC 83 SESSION

EnviroManagement, Inc.



- Founded in 2002, combined 50+ years in environmental science and engineering. In ballast water industry for 24 years.
- **Who we service**
 - Ship Owners / Operators / Managers
 - BWMS Manufacturers
 - Regulatory agencies
- **Vessel Compliance Services**
 - IMO, WHO & EPA VGP sampling in ~100 global ports
 - Ballast Water
 - Gas Scrubber Wash Water
 - Bilge, Black and Gray Water
 - Drinking water
 - Ballast Water Consulting
 - IMO
 - USCG
 - USEPA
 - Classification Societies
 - BWMS Type Approvals
 - General Project Management/Consulting

EVOLUTION:

“The gradual development of something, especially from a simple to a more complex form.”



Image: Yogi Ardana, Vecteezy

EVOLUTION:

Ballast water as an evolution example:

1. Bold move to start the journey to develop regulations, even when there were unknowns. While the 2004 BWM Convention is not simple, there was no / limited practical experience to base it upon. Growth and change guaranteed!
2. Evolved through R&D, trial & error, type approvals, innovation and real-world experience by all stakeholders.
3. Enforcement stage feels a bit like graduation. We know a lot more than when the BW journey started, but are still learning. The pending VIDA regulation and the amended Convention plus it's associated instruments will contain more details than before but we have a lifetime of implementation still ahead...

EVOLUTION:



Progress at MEPC 83

Ballast Water Management

- ⦿ Convention Review / Amendments
 - BWMS data outputs
 - Type approval testing for CWQ
 - Recordkeeping for maintenance & training
 - OMSM review in BWMS modifications
 - Transition from D-4 to D-2
- ⦿ PSC inspection & chemical system data
- ⦿ Risk assessment reporting, Reg A-4

Biofouling Management

- ⦿ Approval of In-Water Cleaning Guidance (MEPC.1/Circ.918)
- ⦿ Agreement to develop a mandatory instrument for biofouling management

MEPC 83 Developments

Report of the BWM Convention Review Correspondence Group (document MEPC 83/4/4), provided guidance for MEPC 83 discussions to support reaching agreement on issues that were not progressed during the intersessional work.

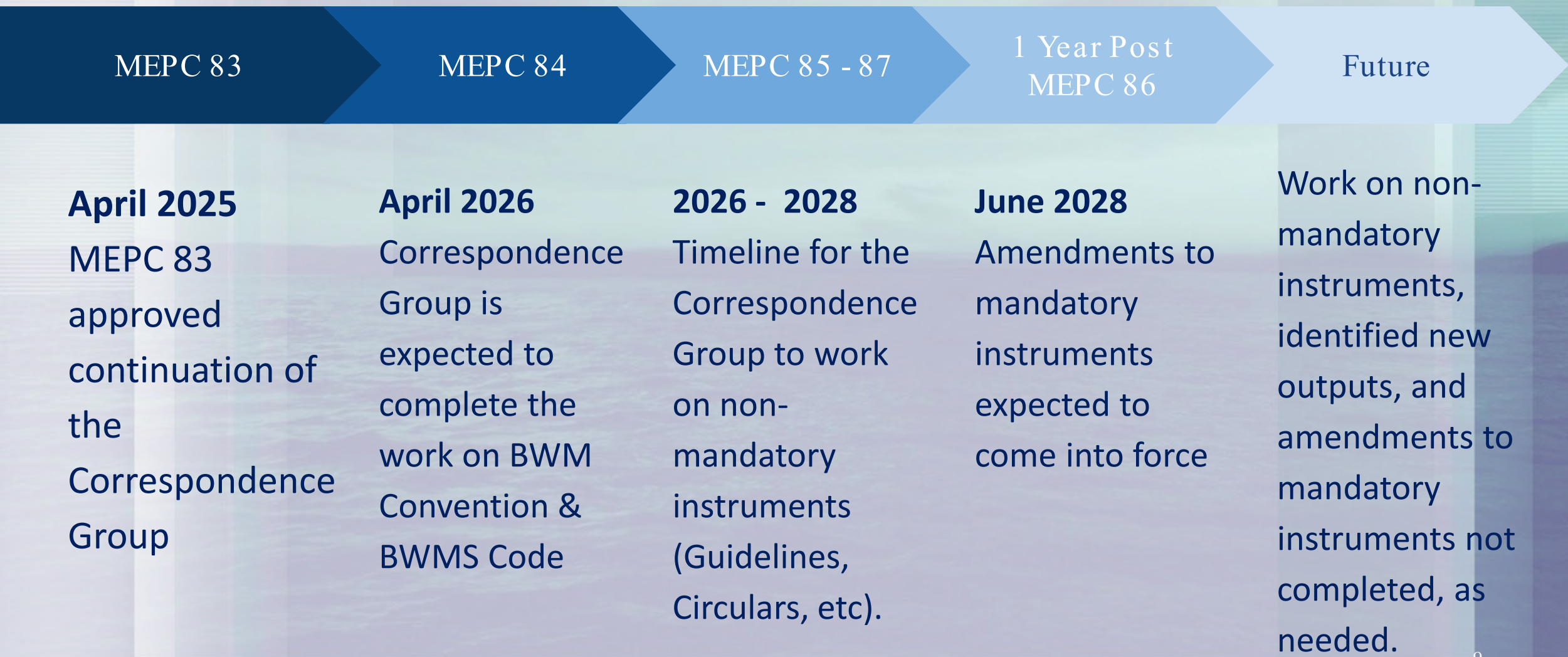
- **Objective 21: Agreement that minimum / critical spare components should be specified by the BWMS manufacturer in the OMSM and included in the Ballast Water Management Plan for review and verification**
- **Objective 23: Agreement that an amended OMSM should be approved at the same time as the approval of modifications by an Administration.**
- **Objective 25: Agreement that a new Section 9 would be added to the BWMS Code to cover system modifications.**
- **Objectives 29 and 31: Agreement to include increased challenge conditions as a mandatory test of system design limitations, but these tests will not change the baseline Type Approval tests**

MEPC 83 Developments

During discussions of the Convention Review, and taking into account the papers submitted, the Group agreed to add a number of new objectives to Convention Review:

- **Objective 82: Establish a survey scheme under E-1 and G10 to include criteria for designating a BWMS installation date for modified or prototype systems.**
- **Objective 83: Develop and include a template for recording BWMS maintenance in the Ballast Water Record Book.**
- **Objective 84: Provide guidance as a ship transitions from compliance under D-4 (prototype systems) to D-2 and how to indicate this on the BWM Certificate**
- **Objectives 85: Amend paragraph 6 of BWM.2/Circ.62 (Contingency Measures) to reflect that malfunction of a BWMS is only one possible scenario for using contingency measures.**
- **Objective 86: Include examples in BWM.2/Circ.80/Rev.1 for how to record maintenance of a BWMS in the Ballast Water Record Book**

Timeline for the BWM Convention Review



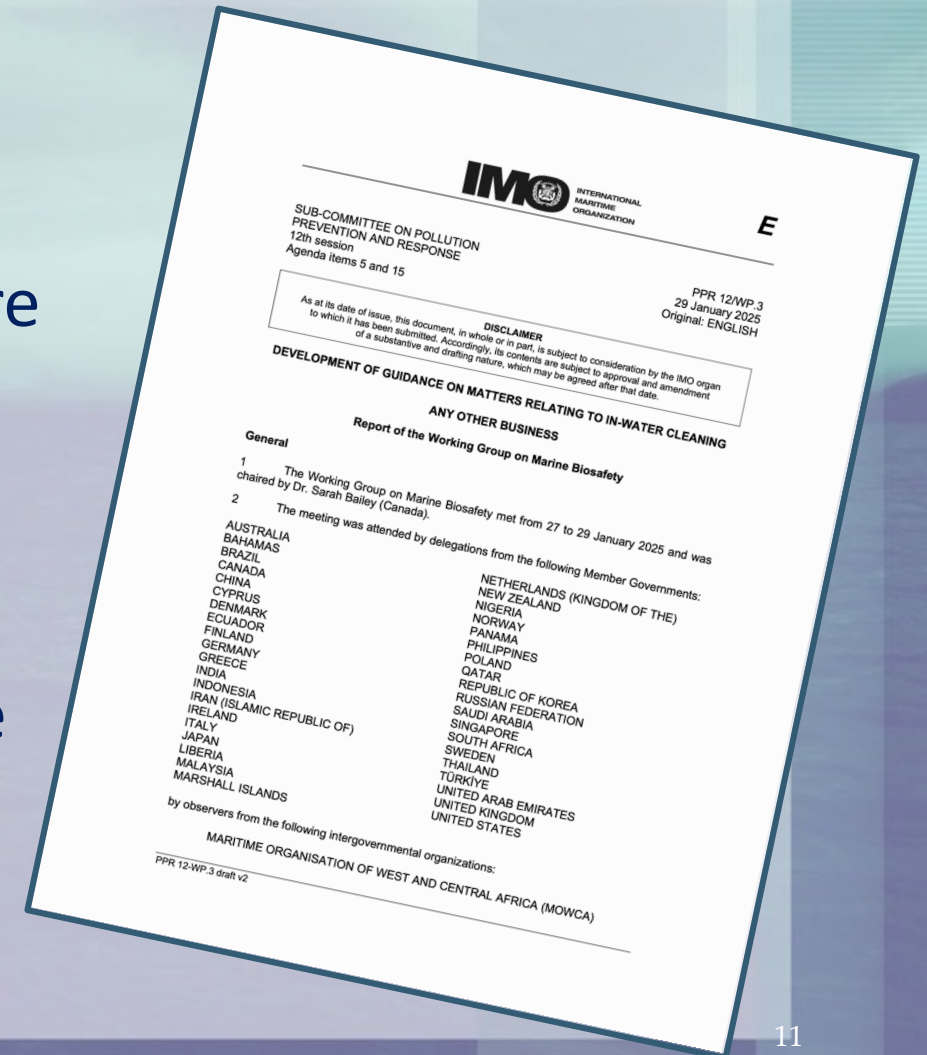
Form of Convention Review Amendments

MEPC 83 agreed that:

- **Amendments to the BWM Convention would be accepted as a complete revision of the Convention, not as individual changes.**
- **Amendments to the BWMS Code would similarly be accepted as a complete revision of the Code, not as individual changes.**
- **Any mandatory provisions that are no longer applicable (implementation cycle, etc.) may be removed during the update process.**
- **The Secretariat was authorized to make editorial or typographical corrections as needed.**

GUIDANCE ON MATTERS RELATING TO IN-WATER CLEANING OF SHIPS' HULLS (PPR 12/5/Rev.1)

- The final version was finalized at PPR 12 and sent for approval at MEPC 83.
- Document allows cleaning without capture for microfouling
- Requires testing of in-water cleaning equipment for at least 90 minutes
- Requires all particles more than $10\text{ }\mu\text{m}$ be captured by the cleaning process



New Work Item: Instrument on Biofouling

MEPC 83 decision to move forward with a new work item: *development of a legally binding framework for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species*. This output will likely be in the form a Convention on biofouling management.

Suggested terms of reference for the work item, to be finalized by PPR:

- consider provisions for testing, verification, surveys, certification, inspections, documentation, record-keeping, and enforcement as appropriate;
- consider and develop draft guidelines needed by the legally binding framework;
- take into account international law such as UNCLOS and other international agreements;
- take into account and address as appropriate potential release of hazardous materials and microplastics; and
- take into account implications for reduction of air pollution, greenhouse gas emissions and under water radiated noise, if any.

Timeline for Biofouling Convention Development

MEPC 83

PPR 13?

MEPC 86

MEPC 89

Ratification

April 2025

MEPC 83 approved addition of this work item to the IMO's 2026/2027 biennial work plan

February 2026

PPR 13: first opportunity to begin establishing the framework process and setting which documents will be used to as new Convention basis text. May also be delayed to PPR 14.

Summer 2027

Estimated timeline for a recommendation on the legally binding form to be submitted for approval by the Committee (e.g. stand-alone Convention, new Annex to MARPOL, new Annex to the BW Management Convention, etc.)

Summer 2029

Estimated time for submittal of a finalized draft legal framework and recommendations to MEPC on the way forward.

Once the mandatory instrument is approved by MEPC and IMO General Assembly, the ratification process starts.

Timeline for this process is unknown.

The new instrument would not enter into force until ratification.

Looming Questions for the Mandatory Instrument

1. What is the performance standard for the mandatory instrument?
 - Cleaning standard (e.g. minimum time between cleaning)?
 - Fouling standard (e.g. all vessels at fouling rating (FR) of 1? below 2?)
2. How will ships demonstrate compliance with the new performance standard?
 - Inspections? Performance monitoring? Cleaning reports?
3. Will the mandatory instrument allow cleaning without capture for microfouling?
4. Will a mandatory instrument compel Flag States to allow cleaning in their waters?
 - Will this impact ratification? All cleanings at sea?

BEMA Updates



- ◎ Name change! Ballastwater & Environmental Manufacturers' Association
- ◎ Growth and excellent engagement in the biofouling sector
- ◎ IMO Activities:
 - MEPC 83/4/11 – comments on MEPC 83/4/4 related to standardization of BWMS data logs and export files
 - Agreement that standardization should be in the output of BWMS data, not the mechanism of data generation or storage.
 - MEPC 83/4/13 – comments on 83/4/4 related to test water conditions
 - Mandatory type approval test for SDLs, but not a change in baseline type approval testing requirements
- ◎ Training programs to support compliance & enforcement, PSC, etc.

Marcie Merksamer, FIMarEST
EnviroManagement, Inc.
Marcie@enviromanageinc.com
+1 805-331-0740
www.enviromanageinc.com



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Thank you!

