

Real Ballast Facts Bulletin

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MEPC 82 and Ballast Water Universe!

BEMA participated as an NGO for the MEPC 82 meeting at IMO headquarters, in October 2024.



Four delegates of the Association were present in London to support ongoing discussions and in particular the proposal of revision of BWM.2/Circ.43/Rev.2 led by BEMA and which has been the occasion of substantial work with leading delegations such as Germany, Australia, Denmark and others.

BEMA is also front and center as part of the IMO Correspondence Group working on developing the package of amendments for the 2004 IMO Ballast Water Management Convention as part of the planned Convention Review Phase. During MEPC 82, most of the Ballast Water Review Group discussions were focused on addressing matters being taken up in the Correspondence Group that were not progressing during the first three rounds of work. These conversations were lively with BEMA providing a number of interventions to provide technical input to the conversation and Correspondence Group Coordinator.

The below provides a high-level overview of key meeting outcomes related to ballast water.

 BWM.2/CIRC.43/REV.2, 2024 Guidance for Administrations on the type approval process for ballast water management systems: The document gives Administrations and BWMS manufacturers a streamlined approach to make changes to the bill of materials for systems which have already achieved type approval. The document also encourages Administrations and Recognized Organisations to mutually accept component changes conducted under the guidance.



- 2. BWM.2/CIRC.80/REV.1, 2024 Guidance on ballast water record-keeping and reporting: The document provides specific examples in the Circular for vessel crews to use when recording operations in challenging water in the Ballast Water Record Book.
- **3. CORRESPONDENCE GROUP ON REVIEW OF THE BWM CONVENTION**. Current work and discussions include:
 - **a.** Amendments to regulation A-3 to specify the circumstances under which the discharge of unmanaged or partially managed ballast water and sediments may be allowed on the high seas or in any other designated areas;
 - **b.** Amendments to regulations B-1, B-2, and E-1 to describe the most efficient and effective approach with regard to BWMS maintenance procedures, taking into account existing procedures for ships and their operational systems;
 - c. A BWMS Code amendment for standardisation of data logs and export files from BWMS;
 - **d.** A BWMS Code amendment to create minimum and/or maximum BWMS testing parameters, test water conditions and other test conditions;
 - e. Amendments to regulation D-2 for the consideration and reporting of disinfection byproducts (DBPs) including sampling and analysis; and
 - **f.** Amendments to Regulation E-1 pertaining to the determination of the type of analysis of ballast water discharges during surveys
- 4. CHALLENGES FACED BY SHIPS ENGAGED IN SHORT VOYAGES: In response to submission by the shipping industry identifying challenges faced by ships, all delegations were encouraged to participate in the BWM Convention Review Correspondence Group to provide input on relevant topics.



MEPC 83 is tentatively scheduled for 7 – 11 April 2025.

Next up for BEMA within the Correspondence Group is another two rounds of work ahead of submissions for MEPC 83, which is expected to be completed by the end of December 2024.

Regulatory Updates & Info

★ U.S. Coast Guard Publishes Docket No. USCG-2024-0501 on Viability Methods for BWMS Testing

The United States Coast Guard published a Notice of Intent (NOI) to prepare a Programmatic Environmental Impact Statement, and to request comments for consideration for acceptance of one or more viability



testing methods for type approval of ballast water management systems (Docket No. USCG-2024-0501) (<u>https://www.regulations.gov/docket/USCG-2024-0501</u>) in August. In the NOI, the Coast Guard describes their request as follows:

The Coast Guard, as the lead agency, announces its intent to prepare the Viability Testing Method Consideration for Acceptance Programmatic Environmental Impact Statement. Through this document, we will evaluate the potential environmental impact of the Coast Guard's Proposed Action to use the best available science to evaluate one or more viability testing methods submitted for consideration. Through this document, we will also evaluate, and potentially accept, methods that demonstrate that ballast water discharge meets U.S. ballast water discharge performance standards currently under development by the Environmental Protection Agency.

As the use of a viability method for testing BWMS performance is critical to a number of BEMA Members, and is in line with BEMA's mission to reduce the overall environmental impacts of shipping by reducing the power consumed by UV systems in normal operations, BEMA's Technical Committee has submitted an extensive response, based on our previous responses to the Draft and Final Policy letters as well as our Members' extensive historical data on the validation of the Most Probable Number and Motility testing method.

As BEMA learns more about this effort, which is taking place as part of the Vessel Incidental Discharge Act (VIDA) rulemaking process, we will let you know!

★ EPA VIDA UPDATE

The United States Environmental Protection Agency (US EPA) issued a pre-release copy of the highly anticipated Vessel Incidental Discharge National Standards of Performance (Docket ID EPA-HQ-OW-2019-0482) as part of the overall Vessel Incidental Discharge Act (VIDA) rulemaking process. The document outlines the new national discharge standard for twenty-three (23) different discharges considered incidental to the normal operation of vessels. There are twenty vessel-specific discharges and three general discharges.

As expected, the US EPA has retained the ballast water discharge standards at a level matching the discharge standard at the IMO. The EPA also retained the ability for ships to clean their hulls without capture provided the fouling levels consisted of microfouling only, again, harmonizing with the IMO requirements for in-water cleaning of hulls.

The publishing of this rule does not impact any current rules, and the 2013 Vessel General Permit (VGP) remains in force until the U.S. Coast Guard publishes their portion of the VIDA regulations which will pertain to how they will inspect vessels to ensure that the discharge limits set by the EPA are followed by ships. The rule also does not remove the need for ships to conduct annual or semi-annual testing for indicator organisms as per the current 2013 VGP requirements. This requirement will likely be addressed by the Coast Guard in their upcoming submission; BEMA will be monitoring and engaging in the USCG process to see if / how monitoring requirements may change.



Events and Meetings

★ SMM 2024

From September 3rd to 6th, many BEMA members were exhibiting or visiting the SMM fair in Hamburg, Germany. Special thanks to our new Full Member Jotun who hosted their first BEMA Meet & Greet at their booth on Wednesday, September 4th. The party drew a huge crowd of current, former, and potential BEMA members together in a party that started at 17.00 and ended up with us being kicked out of the exhibition hall after 21.00 - talk about a party!



Hopefully we will see you next year at a maritime event!

★ IMarEST Marine Biosecurity Symposium Recap

BEMA was proud to partner with the IMarEST Ballast Water Special Interest Group (SIG) in London just ahead of MEPC 82 to participate in IMarEST's 2024 Biosecurity Symposium. BEMA President Birgir Nilsen





gave a presentation about how BEMA is working in both ballast water and biofouling technical and regulatory aspects.

The two-day, in-person conference featured many of the thought leaders in biosecurity from both the ballast water and biofouling communities as well as the regulatory agencies that oversee inspection and biosecurity protection and the leading researchers in the space. It was a unique opportunity for technology providers, regulators, scientists, researchers, test equipment manufacturers, and ship owners to gather and discuss how to collaboratively move biosecurity forward by focusing on our common goals.



Recent & Upcoming Industry Events

Events - 2024

• IMO 3rd GloFouling Partnerships Forum and Exhibition on Biofouling Prevention and Management for Maritime Industries - November 4 - 8, 2024, Busan, South Korea



Events - 2025

- IMO PPR 12 January 27 31 (Tentative), IMO Headquarters, London
- CMA Shipping April 1 3, Stamford, CT
- IMO MEPC 83 April 7 11 (Tentative), IMO Headquarters, London
- NORSHIPPING June 2 6, Oslo (60th Anniversary

Member Spotlight

Disclaimer: The Member Spotlight expresses the opinion of the contributing Member. BEMA is not responsible for the statements nor does BEMA endorse individual persons or companies.

Each publication of the Real Ballast Facts Bulletin shines a spotlight on a featured BEMA Member. We're proud of our Members and are happy to share their accomplishments, industry developments and latest news. All BEMA Members have equal opportunity to be featured and are encouraged to contact <u>external-affairs@bwema.org</u> for details.

This edition's Member Spotlight is on Associate Member, DHI



About DHI

DHI is an independent international consulting and research organization headquartered in Denmark, with over 1,100 employees spread across all regions of the world. Approved by the Danish Ministry for Science and Technology as a Technological Service Institution (GTS), DHI collaborates with government agencies, contractors, consultants, and various industries.

Our state-of-the-art land-based test facilities in Denmark are dedicated to the biological performance evaluation of Ballast Water Management Systems (BWMS). Since 2010, we have been a leader in testing and evaluating BWMS and are among the few facilities still actively engaged in this critical market. We are accredited under EN ISO/IEC 17025 for our analyses related to BWMS performance evaluation and in June 2013, DHI, in partnership with DNV, became the first independent laboratory outside the U.S. to receive recognition from the U.S. Coast Guard.

All performance documentation for BWMS is conducted in accordance with U.S. Coast Guard standards for living organisms in ballast water discharged in U.S. waters and the IMO Code for the Approval of BWMS (BWMS Code). Importantly, DHI does not have any intellectual or financial involvement in the design, mechanics, or marketing of the evaluated BWMS technologies.



Testing Capabilities

DHI's land-based test facility can accommodate type approval testing for up to six BWMS simultaneously, allowing for multiple test cycles every week. Depending on the readiness of the BWMS, DHI possesses a skilled team of technicians, biologists, engineers, and chemists who can efficiently conduct the required 15 land-based test cycles (five in each of three salinities) and five shipboard test cycles.

With 15 years of practical experience, DHI has evaluated nearly all types of BWMS treatments including filtration combined with electro-chlorination or ultraviolet radiation, and filter-less systems, such as ozonation, side stream electro-chlorination, pasteurization, and chemical injection.

To ensure realistic and effective testing, the challenge water used in land-based tests is carefully adjusted to meet both USCG and IMO requirements. Special attention is paid to the source of dissolved organic carbon (DOC). The characteristics of the added DOC, including its aromatic complexity, influence key factors such as decay of total residual oxidants (TRO), absorption of light waves, and the potential formation of disinfection by-products. Consequently, these factors significantly affect the design limitations of the systems being tested and, ultimately, their overall performance evaluation.



Comprehensive Services

In addition to type approval testing, DHI's environmental laboratory and test facilities offer a range of services, including:

Initial R&D testing



- Basic and final approval testing, including whole effluent toxicity testing and evaluation of disinfection by-products
- Risk assessment in accordance with GESAMP requirements
- Component verification and testing, including:
 - Filter load and performance testing, designed to mimic challenging water conditions to accurately evaluate filter performance
 - Comparison and verification of TRO sensors, currently examining the performance of halogen amperometric sensors versus N,N-diethyl-p-phenylenediamine (DPD) sensors
- The threat of invasive species is connected not just to ballast water from ships, but also to the biofouling on vessel hull and niche areas. To address this issue, we offer the following services:
 - Testing and verification of technologies for underwater inspection or cleaning
 - Risk assessment of main or side effect of a technology
 - Route planning optimization to minimize fuel consumption and operational costs, using hourly current data and biofouling predictions for vessel hulls

At DHI, we are committed to promoting invasive species prevention while ensuring compliance with international standards during technology verifications.



Ballast water management - Maritime Technology | Environmental and Ecotox Laboratory (dhigroup.com)