

Real Ballast Facts Bulletin

Issue #7, 29 April 2022

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BEMA Updates & News

The missing piece of the [#BallastWater](#) Management Convention is now in place at the IMO



The Ballastwater Equipment Manufacturers' Association (BEMA) announced on the 12th of February that they received news from the IMO that they have been granted Non-Governmental Organization (NGO) Consultative Status. This designation allows BEMA to attend IMO meetings and contribute to the work of the IMO by submitting technical input and providing specialized operational and technical expertise on ballast water management systems (BWMS). BEMA applied for NGO Consultative status in March of 2020. Due to COVID-19, the decision-making

process was delayed for new NGO applications until the 34th Extraordinary Council session that took place remotely from November 8th-12th, 2021. At that meeting, the Council decided to grant BEMA Consultative Status, and this approval was confirmed by the IMO Assembly during their recent meeting from December 6th-15th, 2021.

“Achieving NGO Consultative Status is giving us the opportunity to provide design and operational expertise, as well as balance to the numerous perspectives from regulators, ship owner organizations, scientific testing networks, and environmental organizations that influence the requirements or stipulations that directly impact the manufacturers as stakeholders in the ballast water treatment community,” says Dr. Efi Tsolaki, President of BEMA. “Several aspects of BEMA’s mission and purpose are well aligned with that of the IMO’s Strategic Goals. The marine industry is currently in the process of implementing the Ballast Water Management Convention and the expertise that BEMA brings to the conversation will help inform the challenges of implementation and will provide a technical voice to future conversations about preventing aquatic invasive species transfer through vessels.”

BEMA was formed in 2017 and held their first meeting in 2018. Their membership includes many industry stakeholders including BWMS manufacturers, marine equipment companies, test facilities, scientists, ballast water compliance tool manufacturers, students and more. “BEMA is a global organization, with members on

nearly every continent and spanning the entire breadth of the ballast water industry,” says Marcie Merksamer, Secretary General of the Association. “BEMA represents the entire scope of the industry and brings a unique voice that has been validated by the IMO through granting NGO Consultative Status. BEMA is grateful for the IMO’s acceptance and looks forward to the contributions that can be made to support the IMO’s work and the maritime industry.

With this recognition by the IMO, BEMA is now allowed to actively participate in IMO meetings. BEMA is thoughtfully considering submissions that can be made to the IMO based on their technical capability and in cooperation with the needs of the maritime industry. Although BEMA and its Members already have close relationships with other industry associations, they look forward to working even more closely now that they can fully participate in the regulatory process at the IMO.

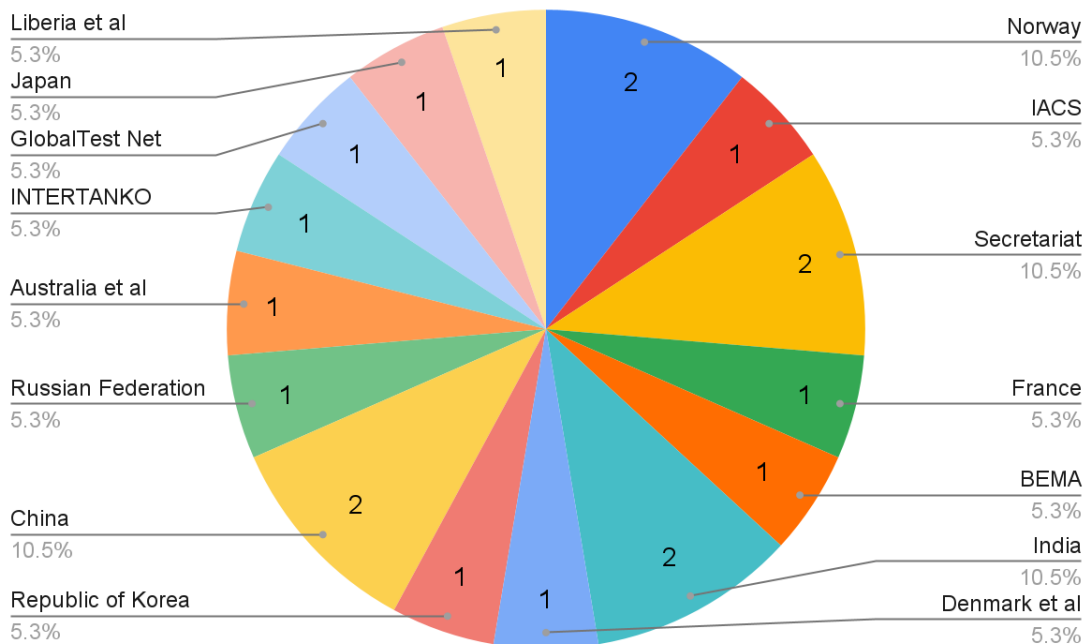
Regulation Updates & Info

★ IMO UPDATES

MEPC 78 Agenda Preview

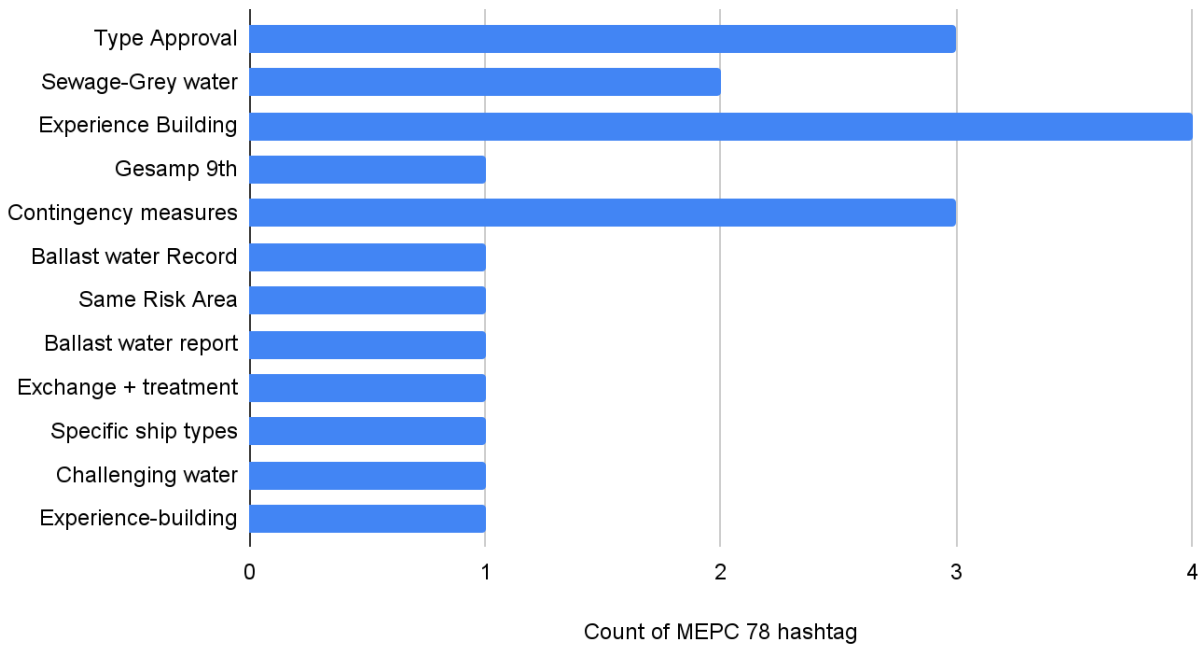
The 78th Marine Environment Protection Committee (MEPC 78) will be held remotely from Monday, 6th June to Friday, June 10th, 2022. As of April 27th, 20 documents are listed under Agenda Item 4 HARMFUL AQUATIC ORGANISMS IN BALLAST WATER and/or are relevant documents related to ballast water.

Member States and NGO Mapping



An outline of the submissions is depicted below:

Outline of MEPC 78 Agenda item 4



BEMA submitted a document, MEPC 78-4-3, *Proposed amendments to the Guidance on contingency measures under the BWM Convention (BWM.2/Circ.62)*. This document proposes amendments to update the Guidance on contingency measures to reflect implementation experience gained and to provide a mechanism to address the need for guidance related to ships operating at ports with challenging water quality. To facilitate normal and efficient ship operations in accordance with Article 12 of the BWM Convention, and to reduce uncertainty for shipowners and crew when such situations are encountered, clear guidance is needed urgently. Therefore, viewing the issue of ports with challenging water conditions (PCWQ) as similar to any other scenario where a ship may have non-compliant ballast water, the proposed amendments provide an avenue to use the existing contingency measure guidance within BWM.2/Circ.62. The document is available on the IMO DOCS website and it is a document publicly available in advance of MEPC 78.

PPR 9 meeting Report of Biosafety Group

BEMA recently attended the 9th Session of IMO’s Pollution Prevention and Response (PPR 9) from April 4th - 8th. The following items were tackled during the Working Group on Biosafety:

- PPR Agenda Item 6: Proposed text changes to Guidelines for brief sampling of anti-fouling systems on ships, Guidelines for inspection of anti-fouling systems on ships and Guidelines for survey and certification of anti-fouling systems on ships, were accepted. Changes to the Hong Kong Convention due to the prohibition of cybutryne were seen as unnecessary due to the generic nature of that Convention, but further work on MEPC.296(68) may be needed at a future date by an appropriate body.
- PPR Agenda Item 7: The group agreed to a Unified Interpretation of BWM Certificate regarding the use of regulations A-3 and A-4 for compliance with the Convention. A Unified Interpretation of regulation B-3 relating to vessels constructed on or before September 8th, 2017 but having an initial survey date after September 8th, 2019, as requested by MEPC 77/4/11 and PPR 9/16/4 however failed to gain consensus and was not approved by the group.

The final policy letter leaves the path open for Most Probable Number (MPN) methods for analysis of organisms 10-50um to be quantified using MPN methods proposed in the future, but rejects all contemporary methods of MPN analysis.

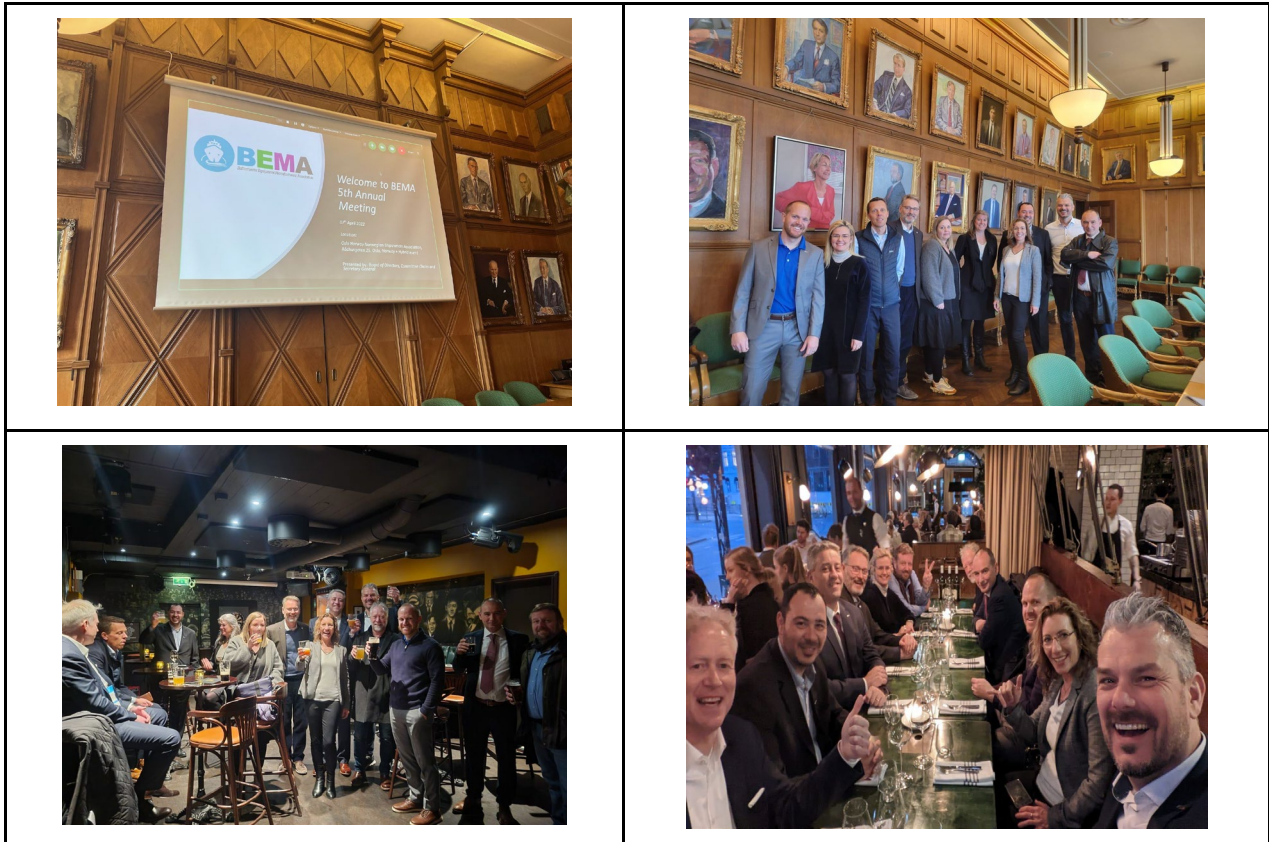
BEMA Events and Meetings

BEMA's 5th Annual Meeting was held at the [Norwegian Shipowners Association](#), in Oslo, Norway during Nor-Shipping on April 7th, 2022. Special thanks to the BEMA Members who joined us in Norway (photos below) and online for the 5th Annual Meeting and participated in the Board of Directors election.



During the Annual Meeting, the results of the 5th Board of Directors election were shared. Here's the rundown of our 9 Board Members:

- President - [Dr Efi Tsolaki](#) of [ERMA FIRST ESK Engineering Solutions S.A.](#)
- Vice President - [Matt Granitto](#) of [DE NORA WATER TECHNOLOGIES ITALY S.R.L.](#)
- Secretary - [Mark Riggio](#) of [Filtersafe Automatic Screen Filtration](#)
- Treasurer - [Birgir Nilsen](#) of [Optimarin AS](#)
- Board Member - [Rasmus Folsø](#) of [DESMI Ocean Guard](#)
- Board Member - Kechao Lu of [HEADWAY TECHNOLOGY CO.,LTD](#)
- Board Member - [Andrew Marshall](#) of [Ecochlor, Inc., Inc.](#)
- Board Member - [Peter Sahlen](#) of [Alfa Laval](#)
- Board Member - [Jorunn Seglem](#) of [Knutson Group](#)



We would like to thank our sponsors for making this event another milestone in BEMA's History.

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Social Reception Location: Dr. Jekyll's Pub, [Klingenberggata 4, 0161 Oslo](https://www.klingenberggata.no/)

Forthcoming Industry Events:

- [Posidonia](#) - Athens, Greece - June 6th - 10th June, 2022
- [Marintec](#) - Shanghai, China - Postponed to June 28th - July 1st, 2022
- [SMM Hamburg](#) - Hamburg, Germany - September 6th-9th, 2022

BEMA Member Spotlight

Disclaimer: The Member Spotlight expresses the opinion of the contributing BEMA Member. The statements do not necessarily reflect the opinions of BEMA, and BEMA does not endorse individual persons or companies.

The Real Ballast Facts Bulletin takes the opportunity to shine a spotlight on a featured BEMA Charter or Associate Member. We're proud of our Members and are happy to share their accomplishments, industry developments and latest news. In this issue, the spotlight is on **Charter Member Scienco/FAST**, who has provided the information below.

After forty years of manufacturing marine and terrestrial water treatment systems, Scienco/FAST have purchased the InTank BWTS from Envirocleanse. InTank was developed and certified with great investment by Envirocleanse, producing a truly unique, second generation BWTS - something much needed in this market. Why is InTank different?

Filterless, InTank offers a treatment mechanism which automatically modulates dosing in challenging waters, providing the vessel complete control over compliance. InTank operates during the voyage, so it does not impact a vessel's port operations; normal ballasting takes place in any type of water, using no power or crew resources. The system features integrated aft-peak treatment and a small pump room footprint, with gravity ballasting/deballasting possible. These differences offer commercial vessels a different path to BW compliance.

InTank is not magic – treatment still has to be done – but moving the treatment process during the voyage aligns ballast water compliance with the operation of a commercial vessel. Furthermore, any breakdown does not delay the vessel. Technical (TRO) compliance is assured before discharge. The vessel is in control of biological regrowth and biological compliance.

InTank uses a fundamentally different approach of treating ballast water in the ballast tank. Doing so allows the system to check the treatment process and adjust TRO dosing appropriately for any type of water. This unique approach also provides the opportunity for a semi-submersible vessel or rig to complete its rapid in-place flood and discharge operations without treatment.

As well as adapting to treatment of different types of water, InTank is flexible in how the active substance, NaOCl (bleach), is provided. The InTank EC system uses an on-board electro-chlorination cell(s), while the InTank BC (Bulk Chemical) system uses stored bleach. The BC system has a much smaller CAPEX, but bleach must be provisioned. Treating during the voyage allows vessels with longer voyages to exchange time for system size (however large the ballast pumps are). Thus, longer voyages allow for smaller, less expensive systems.

A combination of COVID, industry pushback, and bureaucracy has delayed enforcement of the biological discharge standards, which were finalized in 2004. However, the operational and treatment challenges of achieving compliance are slowly coming to light. The stress placed on a vessel trying to simultaneously complete cargo activities and ballast treatment is more than most owners anticipated. A broader and broader definition of "extreme/challenging waters", with associated dispensations, is being sought. InTank, a fundamentally robust treatment mechanism, can automatically address these challenges and achieve compliance without impacting cargo operations. The value of a BWTS that works with a vessel and provides control over compliance – whatever the water quality – is becoming clearer.

Scienco/FAST has been installing robust marine MSDs for forty years – system # 1 was refurbished last year. The chance to expand into BWT had been quietly researched by Mr. Robert Rebori, Owner and President of BioMicrobics, for several years. When the opportunity came, his BioMicrobics subsidiary Scienco/FAST added InTank to its suite of marine products. Being robust, simple, and effective, InTank fits the mold of Scienco/FAST's established product lines. These are all manufactured in the U.S. and supported worldwide

by a network of existing representatives. This network increases the existing InTank representation, which all transferred from the initial InTank investor/developer Envirocleanse.

In the almost 20 years since BWTS were first designed there has been a lot of improvement, development and refinement, but only occasionally has something genuinely different come to market. InTank fits that bill of a new, different approach to Ballast Water compliance.

Experience Building Phase: Ports with Challenging Water Quality (PCWQ)

One of the goals of the Experience Building Phase is to share information about the operation of ballast water management systems onboard ships with the Flag Administrations and regulators to ensure that the implementation of the BMW Convention goes as smoothly as possible. And while the data took a while to be collected, at MEPC 77 there was a significant focus placed on the topic of operations in ports with challenging water quality (PCWQ).

One thing that was easy for the group to agree to was that challenging water is water that is outside the normally expected seasonal variation of a port. Factors like temperature and salinity that remain fairly constant, adjusting for tides and seasons, are also expressly not considered “challenging.” What became a little more murky was exactly how challenging water was defined on a day to day basis and what ship owners needed to do when it was encountered.

One other thing that was very clear during the discussion was that there would not be “blanket” exemptions issued by ports because their water was ‘challenging’. Ship owners are expected to know how to operate and respond to water quality variations when operating in such ports.

As the IMO works on putting guidance together for shipowners, hopefully at MEPC 78 and with the help of BEMA's submitted paper (MEPC 78/4/3), there are a few practical things that ship owners can do right now to ensure that they have the lowest chance of encountering water that poses a challenge to their BWMS:

- A. **Make sure you know the system design limitations of your BWMS.** IMO BWMS performance testing has come a long way in both identifying the system design limitations of the systems that have been tested as well as making sure that the information is clearly indicated on the Type Approval certificate. Ship owners need to make sure they are reviewing these limitations and looking at the ports where they are most likely to trade to make sure they match up.
- B. **Once you have selected a system, make sure that it is installed in accordance with the manufacturer's guidelines.** BWMS performance is a balance of system design and the installation conditions found onboard the vessels. There are many excellent naval architecture groups that have experience with BWMS installations and are familiar with the issues that may come up during or because of an installation. Make sure you carefully plan your installation to ensure that the system is performing at the highest level possible.
- C. **Make sure crews are familiar with the system.** Manufacturers train crews during the commissioning of systems, but the training of follow-on crews and individual crew members can be spotty. Making sure that each crew is fully familiar with the BWMS is critical to ensuring that the system is run properly each time.
- D. **Maintain your system in accordance with the Manufacturers' guidelines.** Like any piece of equipment, the BWMS must be maintained properly, using OEM replacement parts and equipment in order to ensure it is functioning properly. Make sure that you engage your manufacturer directly for maintenance and any problems that may arise during operation of your system. Expecting crews to maintain the system or using non-OEM parts may only create more problems for future operations.



BEMA's publication on operations in ports with challenging water can be accessed [HERE on the BEMA website](#).

The 2004 Ballast Water Management Convention has changed the way ballast water is handled and has redefined the place of ballast water operations on the vessel. How this impacts a particular vessel is largely based not on where the vessel trades or what water conditions the vessel encounters, but instead how much planning and preparation the vessel has taken when they implement ballast water treatment. There are many excellent systems available and can function wherever your vessel may be. Time taking during system identification, installation, and crew training will pay significant dividends in ensuring that your BWMS system works as you expect it to every time you ballast.

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