

## Real Ballast Facts Bulletin

Issue #6, 15th December 2021

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### What will 2022 bring for Ballast Water Management?

Are you ready to implement the next phase of Ballast Water Management regulations from the IMO? In June of 2022, the IMO BWMS Code requirement, published as [BWM.2/Circ.70/Rev.1](#), for biological efficacy commissioning testing will become mandatory. Some Administrations have already started testing on ships sailing under their Flag Administration (Flag) and it is expected more will follow prior to the 2022 deadline.

It is important to note that IMO testing is not part of BWMS manufacturer commissioning procedures. The purpose of the IMO commissioning test is to ensure proper installation and operation of the BWMS in regard to efficacy, not to corroborate the manufacturer's type approval testing. The manufacturer will still test the BWMS to ensure it is running properly prior to handing the system off to the crew. Though the manufacturer may be in attendance with permission from Flag, the crew will be required to run a full ballast operation on their own.

The scope of the ballast water analysis and required ballast volume to support the testing is established in BWM.2/Circ.70/Rev.1, but can also be influenced by the Classification Society (Class) and Flag, and the testing is organized by the shipowner along with any logistics. The shipowner also selects the Independent Lab (IL), typically from a Class-approved list, while Class will oversee the testing.

The IL will evaluate the biological efficacy, assess what they are seeing on the BWMS Human Machine Interface (HMI) and observe the reaction of the crew to HMI messaging – for example, if the BWMS alarms are working, what do they mean and how does the crew react to them. If the crew is not trained on the system or for some reason the system is not run properly, this could result in a very expensive failure of the tests. Thus, advance training on the BWMS by the manufacturer is critical, as is a smooth turnover from manufacturer to the crew and IL.

Currently, most crew training and BWMS manufacturer commissioning procedures are the last items finished before the vessel leaves the shipyard. Oftentimes this is rushed, limiting the time that the manufacturer has to review the equipment and train the crew. With ballast water sampling and bacteriological analyses now taking as much as four to five days, shipowners will need to consider starting the manufacturer commissioning procedures well before the vessel completes its dry dock period.

If testing is delayed, or in the case of a test failure, shipowners may have the option to apply for a short-term (usually 3-month) extension. Extensions are approved on a case-by-case basis by Flag to allow the vessel more time to complete testing requirements. An incomplete commissioning test will result in an

International Ballast Water Management Certificate (IBWMC) with a “pending” notation. Pre-planning for IMO commissioning tests allows for a better, streamlined BWMS installation experience.

Therefore, it is important for the BWMS manufacturer to assist the shipowner by securing an appropriate amount of time for IMO commissioning testing, supporting proper crew training and, thus, facilitating a successful outcome.

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## BEMA Updates & News

First, we would like to note that all stakeholders are encouraged to become Members of BEMA. All perspectives are welcome!

In this issue of the RBF, we are pleased to present a brief overview of the participation of BEMA Membership in the various BEMA Committees. It is the work of the Committees which allows the Board to execute many of the strategic goals of BEMA. Committees also help to credibly expand outreach and respond to broad questions posed by the industry and regulations, or to specific requests for input from industry or regulators. Committee participation from a wide cross-section of our Membership is very important to the internal strength of BEMA as an organization internally and promotes the external credibility of BEMA as a representative industry association.

There are thirteen different treatment manufacturer members of BEMA. These represent broadly Ultraviolet (UV), Electrochlorination / Oxidation (EC) and Chemical Injection (CI) technologies with and without filters. UV, EC and CI manufacturers form the Board of Directors, who are also Members/leaders of the committees: Executive, Planning, Technical, Membership, Finance and External Affairs. As UV members are only represented on the Technical, Membership, Finance and Executive Committees, there is definitely room for increased participation from the UV group within our industry.

Associate Members, eighteen of them, represent major component manufacturers (i.e. filters or UV bulbs), compliance monitoring device manufacturers, engineering firms, and testing organizations. Currently, Associate Members have representation on the Technical, Membership, Planning, and External Affairs Committees.

There are eight Individual Members and one Student Member of BEMA, who are generally industry professionals, either directly or indirectly associated with ballast water regulation, research or treatment. Only one is a Member of the External Affairs and Technical Committees, and we welcome the expertise of BEMA's Individual Members.

Again, much of the strength of BEMA comes from the work completed by the Committees. The more diverse participation on the Committees, the stronger their output. BEMA encourages all stakeholders to join BEMA and for all Members to promote employee participation BEMA Committees. Even if participation is only possible for a short period of time or for a specific task, the engagement will broaden exposure to the ballast water industry and add a relevant voice to the work of BEMA Committees, and support BEMA in being the global resource for technical information about ballast water management

While some BEMA Members may also be competing companies, we are stronger and can be more constructive when we come together with a wide spread of membership across all ballast water industry groups

## Regulatory Updates & Info

### ★ IMO UPDATES

#### BEMA POSITION STATEMENT

##### APPLICATION OF THE BWM CONVENTION - EXPERIENCE BUILDING PHASE BWSM OPERATION IN PORTS WITH CHALLENGING WATER QUALITY

The upcoming 77th session of the Marine Environment Protection Committee (MEPC) will consider a proposed Ballast Water Management (BWM) circular on the application of the BWM Convention to ships operating at ports with challenging water quality. The Ballastwater Equipment Manufacturers' Association (BEMA) has prepared this document to present technical information and considerations from the treatment system manufacturer and system component supplier perspectives.



##### Practical and efficient way forward

Revising the existing IMO contingency measures guidance (BWM.2/Circ.62) to reflect common practices and experiences gained during implementation, rather than developing new guidance specific to contingency measures to be used in ports with challenging water quality



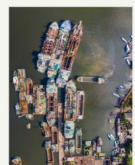
##### Beware of Operational, Safety and Environmental Consequences

Reliance upon ballast water exchange (BWE) as the primary contingency measure requires consideration of potential operational, safety and environmental consequences



##### Design Limitation vs BWMS Failure

Operating a BWMS in water quality conditions that are near or outside the BWMS design limitations is not the same as "BWMS failure". A BWMS has warnings and alarms to protect the BWMS equipment and/or ship, and triggering of these set points demonstrates proper BWMS operation as designed.



##### Quality and Operation following Specifications

Selection of a quality ballast water management system (BWMS) that is suitable for and aligned with a ship's operational profile and anticipated voyage patterns remains a critical foundational aspect of proper ballast water management.

If an inappropriate BWMS is selected, the chances that owners will experience operational challenges increase significantly. When installed, operated and maintained according to the BWMS manufacturers' specification, operation of a type approved BWMS is expected to result in ballast water discharges that are compliant with international discharge standards.

##### What is happening when introducing Untreated ballast water and sediments into ballast tanks?



- Potential compliance risks for the ship
- Additional burden for crew to handle deviations from approved ballast water management practices with port and flag State control
- Potential environmental harm via release of insufficiently treated ballast water /sediments



More info at [info@bwema.org](mailto:info@bwema.org)

MEPC 77 took place from Monday, November 22nd through Friday, November 26th - again as a virtual event. The most important topics on Ballast Water Management during MEPC 77 were:

- Experience Building Phase
- Ports with challenging water quality (PCWQ)
- Unified interpretations for IMO Commissioning Testing

Of special interest was the topic of ship operation in ports with challenging water quality (PCWQ). BEMA published its position paper on this matter in May 2021 ([Position Paper on PCWQ](#)).

In their submission 77/4/8, commenting on MEPC 76/4, Denmark and Germany took this topic up and cited the BEMA position paper. During MEPC 77, the Ballast Water Review Group discussed and agreed in principle that no general exemptions should be given but that challenging water conditions need to be assessed on a case by case.

Despite extensive discussions and some opposing viewpoints on various aspects, the paper 77/4/8 was chosen as the basis for a draft that will be further considered during MEPC 78. Interested parties are requested to comment on the topic and are invited to submit further proposals, taking into account certain fundamental elements for future guidance.

Finally, the MEPC approved the proposed language for a unified interpretation of Regulations E-1.1.1 and E-1.1.5 of the BWM Convention relating to mandatory implementation of commissioning testing: If a BWMS is installed in conjunction with an initial or additional survey on or after June 1st 2022, commissioning testing should be conducted.

Nevertheless, the IMO has encouraged Administrations to request commissioning testing now, and many have already implemented this as a requirement.

★ UNITED STATES

The **Listening Session of the US EPA** took place on October 22nd, 2021. Commenters on the proposed rule were invited to provide additional feedback/comments to the EPA. Attending the meeting on behalf of BEMA were Dr Efi Tsolaki (President), Marcie Merksamer (Secretary-General) and Mark Riggio (Board Member).

The EPA is currently in the process of reviewing and considering the comments received on the proposed rule as the Agency works to finalize the national standards of performance. With respect to the timeline, EPA representatives indicated that they would process comments received during this Listening Session through the end of November 2021; however, the EPA did not provide a specific timeline for release of their final regulations. BEMA will continue to monitor EPA activities for updates.

**California State Lands Commission** hosted a webinar on [November 18th 2021](#) and is scheduling a second on [December 16th 2021](#) to provide further clarity on the revised California ballast water discharge requirements and answer any questions. Changes in regulations will become effective on January 1st, 2022.

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## BEMA Events and Meetings

### International BWT Forum 2021, Shanghai (October 20th, 2021)

One of the few industry events that recently took place - not only virtually but in-person - was the International BWT Forum in Shanghai. BEMA Board Member Mr. Kechao Lu attended the conference. He explained to the audience how BEMA supports the global implementation of ballast water regulations. He also shared [BEMA's position](#) in the ongoing discussion on Ports with Challenging Water Quality (PCWQ) as well as the Association's stance on the topic of commissioning testing.



*International BWT Forum 2021, Shanghai*

## Experience Building Phase: World Maritime University (WMU)

BEMA aims to support the IMO's Experience Building Phase (EBP) and serve as a resource for sharing experiences from stakeholders as implementation of global Ballast Water Management regulations continues.

In this RBF Bulletin, we are pleased to share the recent IMO Agreement with WMU regarding the experience-building phase associated with the Ballast Water Management Convention.



The IMO Secretariat has commissioned the WMU to supervise the data gathering and analysis as outlined in BWM.2/Circ.74. WMU will act as the liaison to gather data, analyse gathered data, and develop an

analysis report to be submitted to the Committee to support and complement the EBP associated with the BWM Convention.

The EBP is a data-gathering and analysis process aimed at assisting the Committee to identify aspects of the BWM Convention's implementation that are working as required, and to further enhance the aspects that are not working. The EBP is therefore known as "a systematic and evidence-based process for reviewing and improving the Convention" (MEPC.290(71), 2017). Moreover, the BWM.2/Circ.67/Rev.1 details the elements to include in the EBP.

With regard to data gathering, these tasks include, inter alia:

1. coordinating with any Member States wishing to submit data to the EBP in order to facilitate the submission of data electronically in the format specified by the DGAP (BWM.2/Circ.67/Rev.1); and
2. identifying and engaging with potential sources of complementary data for the EBP (e.g. port State control MoUs, classification societies/recognized organizations (ROs), relevant industry and professional associations, private entities involved in commissioning testing, etc.) to gather data in the format specified by the DGAP.

In addition to data gathering, WMU will also, inter alia, analyse data collected during the EBP, and, through the Secretariat, provide an update to MEPC 77 and will submit a data analysis report to MEPC 78.

The IMO has invited interested Member Governments and international organizations to contribute data to the EBP, and thus to the work of the IMO, by liaising with WMU. The email address [ebp21@wmu.se](mailto:ebp21@wmu.se) has been created to specifically support the EBP. BEMA encourages all stakeholders to contribute to the EBP and the work of the IMO.

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