Real Ballast Facts Bulletin

A Year in the Life of BEMA

Issue 1, October 2019

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BEMA 2019 – 2020 Board

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External Affairs Committee Chair Message

Greetings Maritime Industry Stakeholders,

Welcome to the very first issue of the '*Real Ballast Facts Bulletin*'! Within BEMA, we communicate regularly with Members. This Bulletin will serve to provide information from the BEMA perspective to external stakeholders who are non-Members. This publication will be issued on a quarterly basis and all stakeholders will be able to track BEMA's current activities and events, and receive relevant ballast water updates.

Some people have asked what BEMA has been doing since the Association was formed. We've been very busy and for this first issue, we are happy to present "*A year in the life of BEMA*".

I sincerely hope you enjoy this overview of BEMA's activities during the first year, as well as the future Bulletins to come.

If you have any questions, please contact me directly at external-affairs@ bwema.org.

Kind regards,
Dr. Efi Tsolaki
Vice President and
External Affairs Committee Chair

BEMA Mission and Purpose

BEMA is an independent, non-profit trade organization connecting vendors, suppliers and essential partners in the ballast water treatment industry. We provide guidance for technical and non-commercial matters to the market by including regulating authorities, ship owners and testing facilities.

BEMA aims to provide manufacturers and industry stakeholders leadership and a unified voice at the International Maritime Organization, the United States Coast Guard, the US EPA and other regulatory bodies, as well as with the general public. BEMA is needed 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.

BEMA provides equipment manufacturers and key industry partners a forum to collaborate and pool resources to address the various existing and emerging challenges of ballast water treatment and enforcement of the standards in a non-competitive environment.

Why you should join BEMA
It is important for equipment manufacturers and key industry partners to respond to stakeholders like ship-owner associations, class societies and regulators to share technical information and create industry credibility. The expertise within your organization can contribute to advancing the ballast water treatment market as a whole and your voice should be heard. As an independent Association, BEMA can voice industry concerns better than a single industry player can do alone. Join us and participate!

How to Stay in touch with BEMA
Visit our website www.BWEMA.org
Follow the #BallastGeeks on Twitter for the latest ballast water scuttlebutt, news, and regulatory updates @ BEMAssociation Follow our Linkedin Page: Official BEMA Linkedin Page

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Regulation Updates

From the beginning of BEMA, participating in regulatory processes is an important aspect that BEMA Members are engaged in and that BEMA Committees work on by preparing relevant material and updates for the Membership as well as for external non-member stakeholders.

Since BEMA's formation, BEMA has responded to requests for input and/or meetings from the following regulatory bodies and published documents available to the public:

- United States Coast Guard (USCG) - meeting to introduce the USCG to BEMA and create an open dialogue
- US Environmental Protection Agency (EPA) - discussions held to introduce the EPA to BEMA and create an open dialogue
- International Standards Organization (ISO) - provided technical comments on draft standards related to ballast water as an observer.
- CA State Lands Commission - request for assistance with biological efficacy data from BEMA Members
- UK Maritime and Coast Guard Agency (MCA) - request for assistance with biological efficacy and system operation data from BEMA Members

Public Documents: (view them here)
- Sep 2018: The Time for Compliance is Approaching
- Feb 2019: Information on the MEPC 73 Outcome Related to Sampling and Analysis to Verify D-2 Compliance at BWMS Commissioning.

Members-only publications include:
- Oct 2018: BEMA Position Statement, MEPC 73 Topic: Sampling and Analysis to Verify D-2 Compliance at Commissioning.
- Nov 2018: Regulatory Assessment – VIDA 2018 (S.140)
- Dec 2018: Post-Meeting Follow Up, Summary of MEPC 73 Outcome Related to Sampling and Analysis to Verify D-2 Compliance at BWMS Commissioning
- Sep 2019: BEMA Position Statement on USCG Draft Policy Letter CG-OES 01-19
- Sep 2019: Information on the United States Environmental Protection Agency (EPA) and Coast Guard (USCG) Vessel Incidental Discharge Act Listening Session

To have full access to Members-only BEMA documents, consider joining BEMA using the following link: Apply for Membership

In future Bulletins look to this Regulation Updates section for information on relevant ballast water

regulation updates.

BEMA Member Spotlight: Charter & Associate Members

Here we provide news that BEMA Members have shared with us to include in the Bulletin.

In this issue we feature news and updates provided by BEMA Charter Member DESMI.

https://desmioceanguard.com/news/another-frameagreement-for-desmi-ocean-guard-a-s.aspx#1
https://desmioceanguard.com/news/stolt-tankers-and-desmi-ocean-guard-sign-frame-agreement.aspx#1
https://desmioceanguard.com/news/updated-uscg-type-approval-with-2-hours-hold-time-and-iecex-coverage.aspx#1

BEMA Committees

BEMA has six permanent Committees that are guided by the Board of Directors. Each Committee has ongoing work and there is likely something you have expertise and interest in that you can contribute to BEMA. Please join us. Progress will not appear magically, and we believe that BEMA's success depends upon the efforts of all of us working as a community.

All Committees are working to establish BEMA as the unified voice in the ballast water industry. The dynamic nature of the industry and forces outside of BEMA's control are threats that require development of mitigation plans to keep BEMA going strong.

Establishing and operating BEMA has required an extensive amount of work that relies on Member Volunteers from all around the world. In addition to in-person BEMA meetings and other conferencing resources, BEMA Committees have tallied astonishing meeting statistics on the dedicated BEMA conferencing service through September 2019:

5,341 Total Audio Minutes
106 Total Meetings Hosted

The manner and amount of things BEMA can do depends entirely on Member participation. There is work for the Board of Directors and Committees to do to better understand the types and frequency of communications Members want to receive, what benefits Members value most, and to continue building BEMA's relevance and reputation.

It is worthy to share a brief summary of current work of the Committees:

The Executive Committee manages the affairs of BEMA, and has led administrative tasks such as development of policies and procedures, internal communications tools, Bylaws amendments and has initiated a Subcommittee to develop the IMO NGO Consultative Status application. BEMA is aiming to submit its application early 2020.

The Planning Committee initiates studies and reviews annual and long-range plans. It is focusing on the Strategic Plan of the Association by developing action plans and pursuing goals that will be realistic and achievable.

The Technical Committee provides neutral technical expertise in regard to BWTS. Currently it is working on several Publications that will be issued to BEMA Members related to:
System Design Limitations and System Operational Limits of Ballast Water Management Systems
Technical Considerations for Exchange of BWMS Components

The Membership Committee is working on the engagement with the Membership. They help to coordinate Member 'Meet & Greet' events at maritime exhibitions worldwide. Next stop will be October at KORMARINE in Busan, Korea and December at Marintech in Shanghai, China. In addition to being a social event for current BEMA Members, any prospective new Members are invited to attend 'Meet & Greet' events.

The Finance Committee is responsible for making sure that BEMA is financial healthy and on track. Periodic and annual financial reports are the main scope of work.

The External Affairs Committee represent the interests of BEMA's work with external organizations such as media, trade associations, and governmental organizations. Currently the Committee is focusing to grow presence on Social Media like Linkedin and Twitter by sharing *#ballastwater* updates from *#ballastgeeks*. Moreover, the External Affairs Committee will publish this Bulletin as BEMA's voice to marine industry.

BEMA Meetings & Events

Below is a roundup of the events and meetings that BEMA has been involved in since formation.

2018 Highlighted Events and Meetings
Feb 2018: BEMA Formation Meeting (pictured right)
Apr 2018: BEMA 1st Annual Meeting
May 2018: BIMCO Meeting
May 2018: 6th Ballast Water Workshop, VDR Members, Germany
Jun 2018: Posidonia 2018, Greece (pictured below, left)
Sep 2018: BEMA Member Meet & Greet, SMM, Germany (pictured below, top right)
Sep 2018: BWMTech North America, USA (pictured below, bottom right)
Oct 2018: United States Coast Guard (USCG) Meeting, USA
Nov 2018: Chamber of Shipping of America (CSA) Technical Committee Meeting, USA
Dec 2018: BWMTech, UK

2019 Highlighted Events and Meetings

Feb 2019: SeaEurope Technical Committee meeting, Belgium
Apr 2019: BEMA Member Meet & Greet, CMA Shipping, USA
Apr 2019: Pacific Ballast Water Group Meeting, USA
Mar 2019: INTERMANAGER-BEMA Event, Cyprus (pictured top left)
May 2019: BEMA 2nd Annual Meeting, UK (pictured top right)
May 2019: IACS Meeting, UK
May 2019: ABS Meeting, UK
May 2019: IMO staff meeting, UK
May 2019: Attendance at the EPA / USCG VIDA Listening Session, USA (pictured bottom right)
Jun 2019: BEMA Member Meet & Greet, NorShipping (pictured bottom left)
Sep 2019: BWMTech, USA
Sep 2019: Shanghai Forum, China

Current-Forthcoming Events

Oct 2019: SAFETY4SEA Forum, Germany

Oct 2019: INTERCARGO Meeting, Greece
Oct 2019: SeaEurope Tripartite Forum, Japan
Oct 2019: BEMA Member Meet & Greet, KORMARINE, Republic Of Korea
Dec 2019: BEMA Member Meet & Greet,Marintec, China
Dec 2019: BWMTech, UK

Join our Social Accounts to get the latest information, news and *#RealBallastFacts* directly from the *#Ballastgeeks* themselves! Twitter: @ BEMAssociation LinkedIn: Official BEMA LinkedIn Page

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Experience Building Phase: BEMA Member Case Study

The purpose of the ballast water Experience Building Phase (EBP) is to allow the International Maritime Organization (IMO) to monitor the implementation of the Convention. The EBP includes data gathering and analysis to allow the IMO to identify aspects of the Convention's implementation that are working well and to shed light on issues that require further attention. The EBP also includes a systematic and evidence-based process for reviewing and improving the Convention.

Here BEMA shares experiences of our Members. For this first Case Study we host the contribution of BEMA Charter Member ERMA FIRST SA by Mr. Konstantinos Dimopoulos, International Sales Manager delivering the experience on: *Ballast Water Treatment Systems: Selection & Retrofitting*.

The operational experience survey results, held from 2017 to 2018, were based on a sample of 500 installations. Systems in a regular operation and subject to monitoring or efficacy testing were up to 14% in 2017, while the last year was up to 25%. The systems that were inoperable in 2017 were 14%, while were down to half at 6% in 2018. Operations with problems in 2017 were up to approximately 30% while it almost doubled last year. Furthermore, systems that are under regular operation but not subject to monitoring or efficacy testing was previously 43% compared to 2018 that was only 10%. Many more units are in operation but more challenges to overcome.

BWTS installations per different vessel types

1. *Tankers and Bunkers share the 75%*
2. *Containers 11%*
3. *LNG carriers 6%*
4. *The rest 7% refer to other vessel types like gas carriers, general cargo and others*

The selection depends on many factors:

1. *Vessel type. In bulk carriers a single ERMA FIRST FIT BWTS is usually installed that treatment capacity covers one ballast pump, while the de-ballasting is conducted at full capacity. In tankers, full treatment capacity is required that is a single or double BWTS usually for flow rates that are more than 3000 m3/h. For the After Peak Tank, a filter-only-option or a secondary smaller system is installed that its size is according to GS&Fire pump. Same applies also to the LNG carriers, meaning treatment capacity to cover full ballasting. Other vessels that are not highly depended in ballasting like containers, Ro-Ro or other vessels, a single system is installed to cover one ballast pump capacity or lower.*
2. *Operational habits. Meaning the duration of ballast voyages, in terms of holding time of the ballasting water, the areas of operation in terms of the quality of the water, organic load and dirt, turbulent waters, salinity levels, and temperature.*
3. *Vessel specific features. Like Top Side Tanks, gravity de-ballasting in bulkers and also in some smaller capacity tankers that Fore Peak Tank is served by an independent pump.*

The pre-selection stage
Vendors specific criteria:

- *Reliability of Technology: In my opinion, a filter is a mandatory application that leads to a minimum energy required for disinfection. Additionally, internal components and wetted parts are protected from mechanical failures. Nevertheless, we need to identify the balance between the filter type and the retention capacity, in order to avoid possible clogging risks.*
- *Disinfection Stage: Life Cycle of components, maintenance and operation costs. The design, configuration and the redundancy of equipment.*
- *Installation Requirements: A purchaser should take into consideration to look out for a*

vendor that offers flexibility and modularity, a cost-efficient installation and a vendor scope of supply that is 100% clear. Hidden costs are avoided.

- *After Sales / Service Network / Lifecycle support: After purchasing and installing a system, vendor is required to have an extended service network in order to support operator in the after-sales level.*

According to a typical retrofitting project, two weeks are needed for the technical, commercial offer and the onboard survey, another two for the technical review and within the next couple of weeks the proposal acceptance and contract signature. This is the point where the actual project initiates. After that, 13 weeks are needed for the BWTS components production, at the same time Approval Drawings development need s 9 weeks. After drawings are finalized, 4 weeks by Class Review and 5 weeks to deliver the components to shipyard. Installation works by Shipyard take 3-4 weeks for and one week that is required for the successful commissioning of the system.

Consequently, a typical delivery time is 5-6 months after Purchase Order.

During feasibility stage we face the following challenges:

- *Identify the most suitable BWTS location*
- *Have available maintenance space*
- *Not to disturb vessel's safe operation*
- *Minimize modifications on the existing piping systems and structural elements*
- *Minimize pressure losses*
- *To provide the optimum cost-effective solution*

Source: https://www.linkedin.com/pulse/ballast-water-treatment-systems-selection-konstantinos-dimopoulos/

"Ask BEMA"

This is your chance to ask BEMA any question that is related to ballast water.

Before submitting your question, please see the Frequently Asked Questions (FAQ) on the BEMA website - the *#BallastGeeks* may have already answered it! The FAQ is updated quarterly based on the questions received.

Click HERE to submit your question

Make sure to follow BEMA at @BEMAssociation on Twitter and LinkedIn to get the latest *#RealBallastFacts* directly from the *#BallastGeeks*!

Stay in Touch!
www.bwema.org
info@bwema.org