Ballastwater & Environmental Manufacturers' Association
2370 W. State Route 89A, Suite 11-205
Sedona, AZ 86336, USA
www.bwema.org

Real Ballast Facts Bulletin

Issue #12, 06 May 2024

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
- For any questions, ask the BEMA External Affairs Committee at external-affairs@bwema.org

Welcome to Our New Board of Directors!

BEMA is pleased to announce that the election results are in and we have a new Board of Directors! First, there are two familiar faces staying with the Board. Birgir Nilsen of Optimarin and Peter Sahlen of Alfa Laval were both elected to serve on the Board following the expiration of their previous term and the Board was joined by two new members: Karl Lander of Greensea IQ, who is sitting in our new seat reserved for Full Members and Eric Hartman of the Vessel Performance Centre is the elected Associate Member.

After completing the organisational meeting and assigning all of the new roles, our newly elected Board, Officers and Committee Chairs are:

• President, Chair of Executive and NGO Committees - Birgir Nilsen, Charter Member, Optimarin
• Vice President & Technical Committee Chair - Dr. Stelios Kyriacou, Charter Member, ERMA FIRST
• Treasurer & Finance Committee Chair - Karl Lander, Full Member, Greensea IQ
• Secretary - Michelle Guy, Charter Member, Wartsila Water and Waste
• Planning Committee Chair & Board Member - Maxime Dedeurwaerder, Charter Member, BIO UV
• Membership Committee Chair & Board Member - Peter Sahlen, Charter Member, Alfa Laval
• Board Member - Eric Hartman, Associate Member, Control Union Vessel Performance Centre
• External Affairs Committee Chair - Dr. Efi Tsolaki, Charter Member, ERMA FIRST

Regulatory Updates & Info

★ **BEMA Update on MEPC 81**
BEMA participated in the IMO's 81st session of the MEPC, held from March 18th through the 22nd.

MEPC 81 BEMA Delegation - James Clarkson (Wartsila, NGO Committee Member), Marcie Merksamer (Secretary General), Mark Riggio (Technical Director), Birgir Nilsen (Optimarin, President and NGO Committee Chair)

Key Topics:
- Interim Guidance on the application of the BWM Convention to ships operating in challenging water quality conditions
- Guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks
- BWM Convention Review
- BWMS Type Approval Modifications

• **Interim Guidance on the application of the BWM Convention to ships operating in challenging water quality conditions:** One of the key outcomes of MEPC 81 was the approval and implementation of the interim Guidance on the application of the BWM Convention to ships operating in challenging water conditions (MEPC 81/4/4). This document has been the work of many different meetings and was the result of significant intersessional meetings between Administrations, BEMA, and many industry associations. In the end, outside of a couple of editorial changes, document MEPC 81/4/4 was agreed to without changes and this guidance will now give vessel operators options for handling situations when their ships are trading in areas with challenging water. The guidance also does not allow for pre-emptive bypass, mandates that vessels must run their systems down to 50% flow rate prior to considering bypass, and highly encourages proper use, maintenance, and selection of systems based on the vessel's routes.

• **BWM.2-Circ.82 Guidance for the temporary storage of treated sewage and/or grey water in ballast water tanks**: Another long standing issue at the IMO has been the temporary storage of treated sewage and/or grey water in ballast tanks when vessels are in discharge-controlled areas (MEPC 81/4/6). Following extensive discussions, the group was able to finalize this guidance, creating a path for vessel owners to temporarily use ballast tanks for this purpose, and providing clear guidance on how to clean and flush these tanks prior to returning them to service as ballast tanks. BEMA was critical in ensuring that tanks are cleaned prior to discharging water through the BWMS and we are pleased that this guidance can formalize a practice that has been used for quite a while now, to ensure that BWMS are not negatively impacted by treated sewage and/or grey water.

• **Draft amendments to regulations A-2, B-1 and B-2 of the BWM Convention**: The Committee decided that due to the completion of the guidance on temporary storage of treated sewage and grey water in ballast tanks and the ongoing work of the Convention Review Group, the proposed amendments to A-2 and B-2 were not necessary; however, the proposed amendment to regulation B-1 could be considered under the BWM Convention review (MEPC 79/4/8).

• **Finalization of guidance on modifications to ballast water management systems with existing type approval**: Despite significant intersessional work and owing to the extensive work required to complete the other items on the agenda of the working group, BEMA's co-sponsored paper on Guidance on modifications to ballast water management systems with existing type approval (MEPC 81/4/3) was not given sufficient time to make progress. The BWRG recognized that this work was important and could not be put off until the

end of the Convention Review process, so it requested additional intersessional work and the Committee invited further submissions to MEPC 82 to continue to progress this work.

• **Correspondence Group on Review of the BWM Convention**: Significant work was completed by the Ballast Water Review Group toward reviewing the report issued by the Correspondence Group (MEPC 81/4/2) on the Convention Review and putting together a list of the needed amendments to the Convention, BWMS Code, and existing guidance documents that could be worked on over the next few sessions during the Convention Review Phase. A new round of the Correspondence Group was launched with a target of supplying a report providing text for these amendments by MEPC 83 in early 2025. BEMA will be participating in this work and you can look for more updates as the work continues.

• **Revisions to the Ballast Water Management Convention:** Following adoption of electronic records for the ballast water record book at the previous session of the MEPC, during this session, the final amendments to Regulation A-1 and B-1 were drafted and implemented to incorporate these electronic records into the Convention (MEPC 81/3). The IMO also announced that there will be an extra-ordinary MEPC session in 2025. Instead of only one MEPC session next year, there will be two. Because the second session is focused exclusively on greenhouse gas emissions, there may be no ballast or biofouling work, but this change has moved the timing of MEPC 83, originally scheduled for the summer of 2025, up to the Spring.

Stay tuned and the #BallastGeeks will keep giving you updates as we learn more about important IMO developments!

★ IACS Update

IACS released Recommendation No. 180 – Recommendation for conducting commissioning testing of Ballast Water Management Systems – New April 2024

This recently published IACS recommendation provides guidance for conducting a biological commissioning test of a Ballast Water Management Systems (BWMS) in accordance with IMO BWM.2/Circ.70/Rev.1. The commissioning test demonstrates that an installed BWMS is working properly and per the BWMS manufacturers instructions by verifying that the ballast water discharge meets the D-2 standard, as well as an assessment of self-monitoring parameters.
https://iacs.org.uk/resolutions/recommendations/161-180/rec-180-new

★ USCG Update

In March USCG released the Port State Control in the United States 2023 Annual Report. Covering all U.S. PSC issues, the report provides specific detail on vessel compliance with the U.S. ballast water laws. Though not completing compliance assessments of ballast water discharge, USCG is completing inspections of the required reporting documentation for ballast water management, treatment reporting and treatment systems. 2023 saw a 29% reduction in deficiencies from the 2022 total; however, USCG noted this drop in deficiencies underlines the value of the Enhanced Examination Program (EEP). An EEP is used by USCG to focus an inspection on specific aspects of a vessel's compliance. In 2022 it was employed by USCG for BWM but not in 2023. The Report says ballast will again be subject to EEP 2024. It will be interesting to see deficiency totals next year. In 2022 more than half of the deficiencies were due to inoperable BWMS or non-reporting of an inoperable BWMS - be it USCG Type Approved or an AMS system, the balance is documentation issues with a small number of non-compliance discharges are reported - from vessels with incorrectly operating/non-operating BWMS.

While stating USCG finds enforcement of the BW Laws to be challenging the report commits to complete EEP for ballast. As the IMO moves to an expectation of discharge compliance, it will be interesting to see if the USCG follows suit.

2023 Port State Control Annual Report Posted > United States Coast Guard News > Maritime Commons (uscg.mil)

Events and Meetings

★ BEMA 7th Annual Meeting Recap

It was a glorious week in Stamford, Connecticut for the #BallastGeeks and #BiofoulingGeeks as we got together both in-person and on-line for BEMA's 7th Annual Meeting, held at the Holland & Knight, LLP law offices. The meeting was the culmination of a busy week at the Connecticut Maritime Association's 2024 marine conference and exhibition.

Joining the festivities this year were five external speakers! Sean Pribyl of Holland & Knight discussed the legal implications of the BWM Convention and he was followed by Carleen Lynden Walker who discussed NAMEPA and the important role that they play in helping to connect different parts of the maritime world together. Next on the agenda was Ole Christian Schroder of Scorpio Tankers who discussed his experiences and challenges with ballast water treatment. His talk focused on issues with operations in challenging water quality and the importance of experience when selecting systems. Next Ben Hayes and Sandra Bozzo with Transport Canada discussed the implementation of the Convention, port State control, biofouling policy development, and the interplay of regulatory authority in the Great Lakes. Finally, Ryan Thresher of the U.S. Coast Guard joined us very early in his morning from the West Coast as he discussed how the Coast Guard was looking at VIDA and what their current port state control experiences have been. Following these amazing speakers, the members in attendance were treated to a complete review of the activities of the Association for the past year. This included a review of the implementation plan for BEMA's name change to the Ballastwater & Environmental Manufacturers' Association, implementation of the recent Bylaws amendments, and expansion of BEMA's focus to emerging environmental technologies.

Here's a look at some of the Members who joined in person and the many shining faces who were able to participate online.

Pictured: 1 & 2.) BEMA Members in person and virtually attending BEMA's 7th Annual General Meeting on March 15th in Stamford, CT.

3.) BEMA's President and NGO Committees, Birgir Nilson, Secretary General Marcie Merksamer, and Peter Sahlen, Membership committee and Board Member at CMA, based in Stamford, CT this past March, 2024.

Recent & Upcoming Industry Events

Events - 2024

International Conference on Aquatic Invasive Species (ICAIS 2024) - May 12 – 16, 2024 in Halifax, Nova Scotia, Canada

POSIDONIA - June 3 - 7, 2024, Athens. Greece

SMM Hamburg - September 3 - 6, 2024, Hamburg, Germany

IMarEST Marine Biosecurity Symposium - September 26 - 27, 2024, London

IMO MEPC 82 - September 30 - October 4, 2024, IMO Headquarters, London

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

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 external-affairs@bwema.org for details.

This edition's Member Spotlight is on BEMA's Charter Member, **BIO-UV Group**.

Although France-based BIO-UV GROUP has established a strong reputation for UV-, electrolysis- and ozone-based water treatment technologies across all recreational, municipal, and industrial sectors globally, it is the company's UV+filtration-based Ballast Water Management Systems (BWMS) that can be lauded as a particular success story.

The company's BIO-SEA ballast water treatment system was one of the first BWMS to achieve both IMO (2013) and US Coast Guard (2018) type approval. While BIO-UV Group's has chemical-free BIO-SEA BWTS available for flow rate capacities up to 2000m3/h with its multilamp M series, it invented what is probably one of the most compact UV BWMS on the market, with its new BIO-SEA L01-0030 Mini, designed to treat ballast water flow rates between 13m3/h and 30m3/h from a unit that has a skid footprint of just 1m2.

BIO-UV Group conceives and manufactures BIO-SEA systems at its facility in south France using high-quality components. Designing and manufacturing its products in-house also reduces lead time. Additionally, the listed company provides 3D scanning, design, installation, commissioning, maintenance, and after-sales services as part of a complete turnkey service package.

While UV technology has been used to disinfect water for more than 100 years and cannot, therefore, be patented, the operational innovations make the BIO-UV Group's offer so unique.

This innovative approach is carried over from BIO-UV's long history of developing water treatment solutions for other industries (residential and commercial pools, drinking water, wastewater, industrial process water...). This experience puts the company into a distinctive position as many of its competitors have come

into the BWM sector from the marine business whereas BIO-UV Group's legacy is in providing chemical-free treatment to all sorts of water types. Indeed, the Group's shipboard water treatment technology is transferrable to other marine sectors, including fisheries, wellboats, and aquaculture as well as public aquariums.

To illustrate some of its recent achievements, the company partnered with The Columbia Group, Inc. (TCG), a U.S.-based engineering company and prime contractor to the US Department of Defense, to design and deliver solutions to the US NAVY. Teaming up with BIO-UV Group design engineers, TCG was awarded a contract in 2021 to develop a military version of its USCG-approved ultraviolet light (UV) ballast water disinfection system to equip future US Navy ships.

In the maritime industry, BIO-UV Group is committed to supporting initiatives to decarbonize shipping and has equipped two of the most recent wind-powered cargo vessels Neoliner, and Grain de Sail II with its compact BIO-SEA units. That these vessel owners opted for a chemical-free, low-power BIO-SEA solution to treat their ballast water makes the wind-powered ships even more environmentally sustainable. It is also indicative of the Group's desire to work with more and more ship owners and shipyards that are pushing the boundaries of innovation and design to build a new generation of ships that respect the marine ecosystem and ocean's biodiversity.

Last year, BIO-UV Group secured a contract in Abu Dhabi, supplying 36 ozone-based water treatment systems to a prestigious theme park. It is the world's largest aquarium, home to over 100,000 marine animals. The ozone generators ensure water clarity and depth of colour in a wide range of tanks and remove fish food residue, aquatic waste, toxins, and algae that can cause cloudy or yellowing of the water and stress to the animals.

Related to the marine world but broadening the spectrum into the aquaculture market, other commercial successes for BIO-UV Group have included delivering a range of UV and Ozone technology equipment to global aquaculture players such as Scottish Salmon's farm; Cooke Aquaculture's hatchery; Scottish Sea Farms' hatchery; Great British Prawns facilities; and MOWI throughout the world.

Recently, BIO-UV Group has delivered 16 Triogen ozone units including one of the company's new PPO3 ozone generators to a trio of Scottish salmon farms this year, all manufactured at the Triogen® facility in East Kilbride, near Glasgow. This order follows on from the performance success of the Triogen ozone generation units installed at fish farms over the past decade.

Additionally, BIO-UV Group signed an exclusive partnership agreement last February with Florida-based Pinnacle, one of the largest suppliers of ozone technology in the North American municipal, aquaculture, and industrial markets. Pinnacle's patented advanced ozone technology will increase BIO-UV Group's ozone product capacity to >30 kg/h, which will open a much larger market opportunity worldwide. The Pinnacle portfolio perfectly complements the existing BIO-UV Group range of water treatment solutions. The combined product range covers the complete spectrum of water and wastewater treatment requirements across a greater range of industries, including aquaculture, municipal, industrial, and leisure.

***