

Ecochlor – getting the right system is crucial

Some shipping companies have installed BWMS which turned out not to be fit for purpose, says Ecochlor. And there may be a need for ‘contingency’ allowances in national regulations for when water has ‘challenging’ quality, such as particularly high sediment levels

By Andrew Marshall, CEO, Ecochlor

More than 20 years ago, Ecochlor had a mantra when speaking to shipowners that was repeated again and again. “You need to look at the system design limitations (SDL) as well as the ship’s operational requirements and trade routes before choosing a ballast water management system (BWMS) for your vessel.”

In other words, choose carefully so that you get the right system, on the right vessel, that gives you optimal performance of the BWMS in the waters of your ship’s trade routes.

Unfortunately, many early-adopters weren’t listening and instead focused their standards on finding the lowest-priced BWMS.

As regulatory requirements became more rigorous, owners started looking at the BWMS with IMO and USCG Type Approvals, figuring that if these systems had passed the rigorous testing requirements for certification, then surely that would mean it would be complying when used on their ship.

Again, we repeated our mantra.

Some owners did start doing feasibility studies and picked their BWMS based on the system design and/or limitations for their specific ship or fleet as well as trade routes.

Some did not, and after their ship’s crew spent considerable time trying to make the system work in waters that weren’t compatible or extremely challenging, they threw up their hands in defeat.

Now, those same owners are back in the market, looking for another BWMS that is a better fit for their vessel.

The financial loss of taking a BWMS off the ship and installing another one is considerable. But the long-term cost of non-compliance is more – including costs to the reputation of the owner or ship management company.

For the most part, if the BWMS system is not in synch with the vessel’s operations, the only option is a second installation with a new BWMS.

I recommend that shipowners take a hard look at treatment systems prior to BWMS selection, to make sure that it is going to do everything that you require, and that it is simple for the crew to operate.

Training

The depth of training that is provided to the crew is an often-overlooked point in running the BWMS efficiently and minimizing non-compliance.

Manufacturers and shipowners should be engaged to ensure every crew member operating the system has sufficient tools available for training. This includes any new crew boarding the ship after the commissioning.

Ecochlor has shipboard classroom and hands-on training programs, which can be held at the owner’s facilities. We provide twice-yearly instruction opportunities to new seafarers and any crew needing a “refresher” course when onboard, for our chemical resupply operation.

Challenging water quality

There has been a lot of buzz around the topic of ports with challenging water quality (PCWQ).

Shipowners have requested better clarity for the legal situation when crews are faced with waters that are particularly challenging for their installed system.

As we near the end of the IMO’s experience-building phase for the Ballast Water Management Convention implementation, there is an expectation of increased penalties by Port State Control when inspecting non-compliant ships.

In early 2021, INTERTANKO asked their membership to send them information on any problems they were having with their ballast water management systems whilst in port.

This was in preparation to support a proposed new IMO Circular that hoped to provide guidance for the application of the BWM Convention to ships operating at PCWQ, using a draft proposed by Liberia, INTERTANKO and INTERCARGO (MEPC 76/4).

They received 468 responses and published the results in March 2022.

After combining the individual reports from their members, they submitted the results to the International Maritime Organization (IMO), Maritime Environmental Protection Committee (MEPC) for discussion at the next meeting (MEPC 78/INF.17).

In the report, INTERTANKO characterized

a total of 192 ports as having challenging water conditions that affected ship’s ballasting operations. Most of the issues seemed to stem from waters having heavy sediment, which were causing problems with filters or affecting the efficacy of UV transmittance.

The summarized member reports are as follows: 72 occurrences where BWMS failed and 66 with operations at reduced rates due to PCWQ; 176 times the BWMS needed to be bypassed due to physical limits and/or failures; 26 times the system was bypassed due to exceeding the system design limitations (SDL); and 17 instances of ships experiencing delays.

The Ballast Water Equipment Manufacturers Association (BEMA) responded to the INTERTANKO report by publishing a “Position Statement”. This focused on presenting technical information and deliberations, also with comments from some flag states and industry stakeholders.

BEMA stated that the “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 a BWMS “is 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,” it said.

BEMA supported the need for “appropriate contingency measures that are vessel, BWMS and situation specific,” and these contingency measures should be approved by flag state and part of the ship’s BWM Plan.

However, the Association believes that “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, may offer a practical and efficient way forward.”