

Pandemic Adds Pressure To Compliance With US and IMO Ballast Water Management Regimes

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Retrofit demand was already outpacing capacity, but Coronavirus has worsened the situation.

Even before the outbreak of the Coronavirus, pressure on the industry was intense to maintain a fast pace of Ballast Water Management System (BWMS) Code Type Approvals, installations and commissioning of BWMSs.

An increasing number of BWMS Code Type Approvals were being granted but possibly not soon enough to keep pace with the demand for retrofits. US Coast Guard (USCG) Type Approvals were doing better, though many of these units are not BWMS Code (or 2016 G8) approved.

Any interruption or slowdown by any stakeholder could easily complicate these high-paced projects with critical paths and choke points, thereby causing vessels to miss their compliance deadlines for regulation B-3 (as amended) of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention).

While the COVID-19 pandemic keeps the world operating in lockdown and shipping struggles to keep the global economy moving, delays with compliance requirements are now becoming more common. Class society ABS anticipates an additional backlog due to many missed installation deadlines. Many vessels, having planned dockings at shipyards are now forced to go elsewhere and unable to pick up their pre-positioned equipment, thus exacerbating an already problematic situation.



The mid-life crisis

Analysis by ABS prior to the COVID-19 pandemic suggested that vessels up to 15 years of age are likely to be the oldest to install a BWMS, with owners of vessels aged 16 and older, more likely to opt for recycling. Perhaps, at best, some of these vessels can be repurposed for non-international charters.

The five-year window until September 2024 in which to carry out retrofits of BWMSs will see installations peak in 2022, but not all the existing fleet is expected to make it past this milestone. As retrofit capacity becomes tighter, projections indicate there will likely be a bottleneck of vessels seeking installations, resulting in a peak of potential removals. Due to the significant pause in shipyard production during the COVID-19 pandemic, the number of vessels to be scrapped may likely increase.

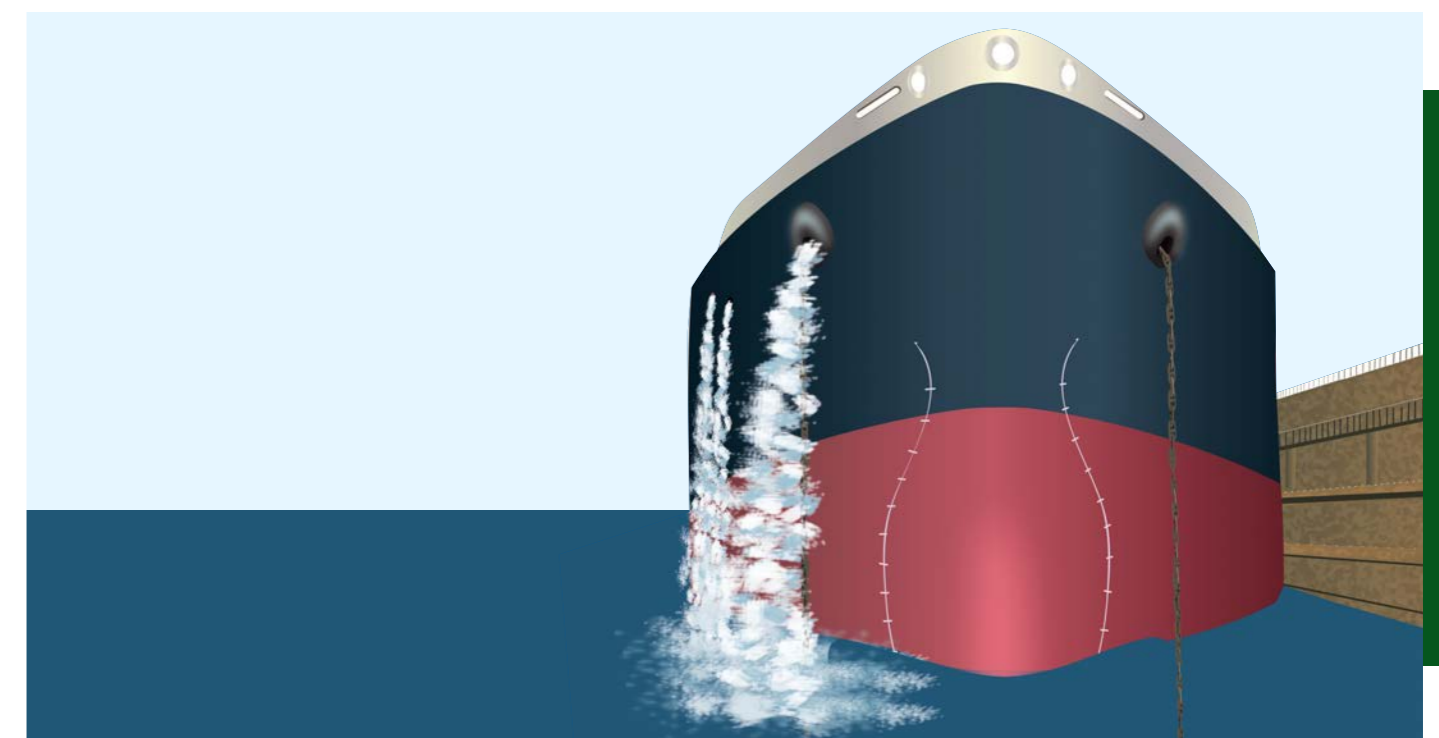
Some of the bottleneck can be attributed to vessels that de-harmonized their International Oil Pollution Prevention (IOPP) certificate renewals leading up to the September 8, 2019 effective date of the BWMS Convention to push vessels past the first few years of retrofits, thus, adding to the number of vessels requiring BWMS retrofits in 2022.

On a global basis, ABS estimates that approximately 40,000 vessels of 2,000 deadweight tons (dwt) and larger have yet to comply with the BWM Convention. On average it expects that approximately 25% of these vessels will likely not complete their third Special Survey at 15 years and would not be retrofitted with a BWMS.

Even so, approximately 30,000 vessels of 2,000 dwt and larger will have BWMS retrofits during their next Special Surveys (coincident with IOPP certificate renewal surveys) between September 2019 and September 2024, taking into account that some will need to install a USCG-approved BWMS before the regulation B-3 (as amended) of the BWM Convention compliance dates.

More capacity needed

This works out to about 500 retrofits per calendar month. Based on the man-hours of work required to add these retrofits to the normal out-of-service periods (engineering and designers, BWMS manufacturers, class, flag, shipyards and shipowners) the industry will likely need more technically qualified personnel to accomplish this work to meet the deadlines. If any of these stakeholders have not yet ramped up to meet these challenges, the entire five-year implementation plan would be at risk of failure.



The industry was already ramping up to accommodate 2020 and 2021 retrofits. However, without an effective doubling of retrofit capacity in the same period, it will not be physically possible to complete the required number of retrofits in 2022.

What is also clear is that shipowners should not consider delaying BWMS installations just because the technical advantage offered to them by the IOPP renewals allows them to do so. In a worst-case scenario – such as we are experiencing now – these vessels may not be able to get the retrofits completed by the required deadlines. Retrofit challenges include fitting the BWMS itself (footprint, dry and wet/operating weights affecting structures) and increased power demand, often challenging the vessel's existing electric generator capacities.

ABS has consistently recommended rigorous and timely BWM technology choices, selecting experienced designers (with experience gained by early adopter retrofits), proper BWMS vendor selections based on market staying power, technical assistance and service levels, and effective operator training. These will be new predictors of performance for retrofitting vessels. Getting any of those wrong can doom a vessel to the scrapyards.

Short term options

The IMO has issued a set of circulars asking flag States to be cooperative with shipowners and offer flexibility if the vessel certificate renewal is due. IOPP renewals can be completed but to minimize worker exposure to COVID-19, it might not be possible to complete the BWMS retrofit. Even if equipment could be installed, crews may not be sufficiently qualified and vendor technical assistance may not be available to finish the installation and commissioning. This would result in a need for continued compliance with the BWM Convention's ballast water exchange (BWE) D-1 requirements or the vessel would not be allowed to sail on international voyages.

The response from flag States to the IMO circulars has been consistent in providing three-month extensions to IMO instruments, however more time will be needed to put the BWMS retrofits back on schedule. The USCG can grant extensions for its 33 CFR 151 Subparts C & D compliance and, where necessary, issue statements of voluntary compliance (SOVC) for continued BWE under the D-1 requirements for US flag vessels.

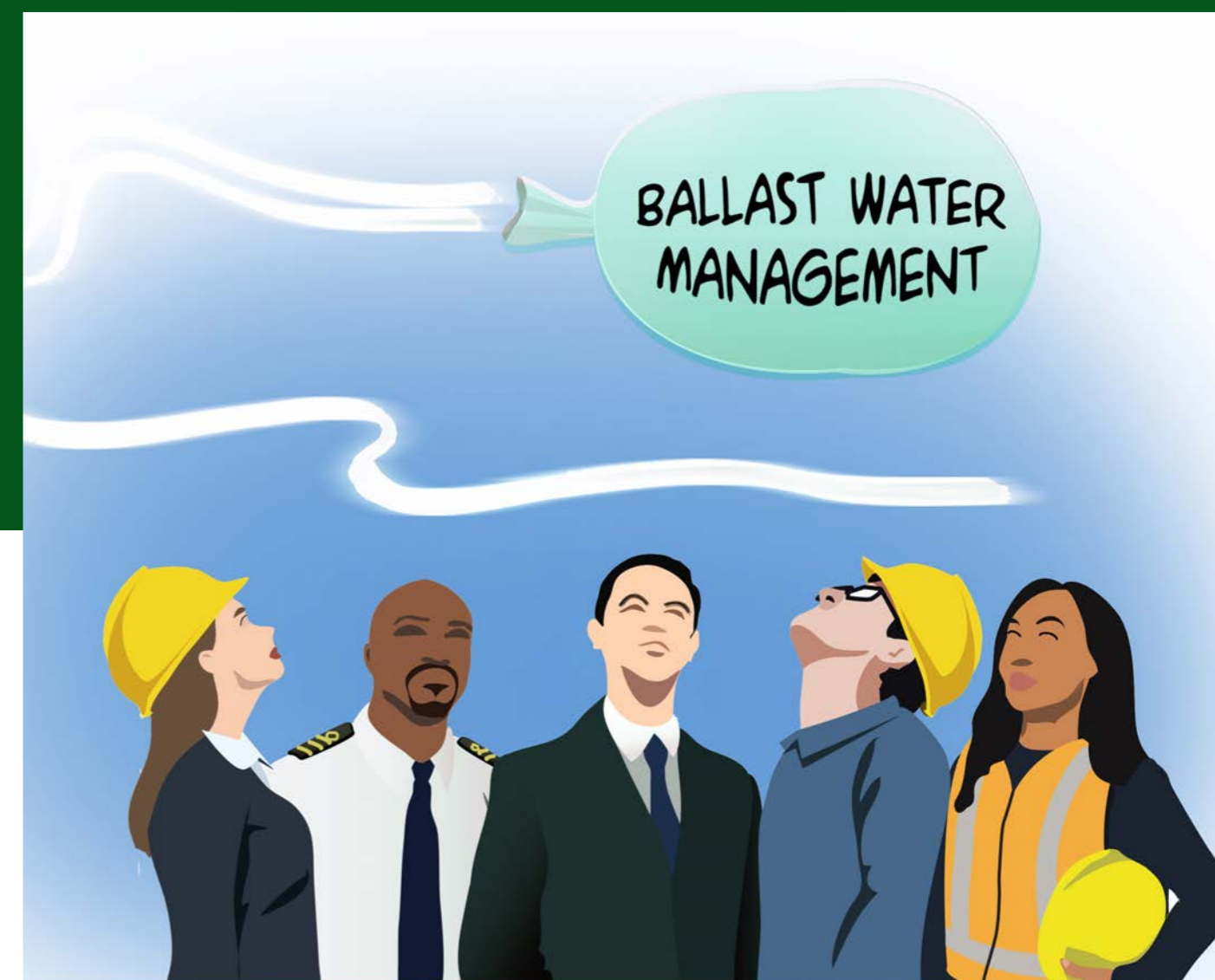
The BWM Convention does not include extensions for D-2 compliance. In response to the IMO's Circular Letters, flag States that are signatories to the BWM Convention could provide extended duration international ballast water management certificates (IBWMC) allowing vessels to conduct the retrofits during their next regularly scheduled out of service periods (i.e., the vessel's Intermediate Survey).

ABS is monitoring guidance issued by flag Administrations and has made this available at <https://ww2.eagle.org/en/news/abs-covid-19-update.html> to enable shipowners to understand options available to them for their vessels during the COVID-19 pandemic.

Regulation D-1 (ballast water exchange) has provided effective interim compliance and the safety of open-ocean BWE has improved since its introduction in 2004. BWE can remove at least 70% of invasive species and there is a reduced risk of threat to the de-ballasting port for species picked up in open ocean exchange.

The industry has overcome the potential safety and stability issues associated with BWE in earlier years, although BWE remains an energy-intensive process requiring proper training and attention to procedures.

However, it could provide a means for vessels that will miss their IOPP certificate renewal survey deadline for D-2 BWMS compliance to continue operating until they can finish the retrofits after the COVID-19 pandemic subsides. If the IMO could consider some flexibility for late-in-life vessels to continue D-1 for the last few



years of life, some vessels could avoid early scaping thus helping to avoid a shortage of vessels required to recover the global economy after the COVID-19 pandemic.

The situation is still evolving, but the program of delays and extensions must be granted on a uniform basis to enable vessels to keep trading. It is also important that shipowners understand both their responsibilities and the options available to them to make sure they can maintain safe operations during this dangerous time.