

DBTG Information Paper - Ballast Water Management Convention

The Issue

The effect of and impact on Dry Bulk Terminal owners and operators on the entry in to force in September 2017 of the International Maritime Organisation (IMO) Convention on Ballast Water Management (BWM Convention).

Background

All ships require ballast water (which also contains sediment) for stability and manoeuvrability when not fully loaded. The ballast water they require is generally taken on board at source when needed and simply discharged at the loading/unloading location. This means that ballast water can be carried thousands of miles and is often discharged in a different environment/ocean to where it originated.

However, sea water contains microscopic organisms and other sea life specific to its location. Most of this life will not survive the voyage but some does and where that happens, when pumped out of ballast tanks, the microscopic organisms and potentially invasive sea life can establish itself in a new environment. Non-native species can have a severe impact on local ecology, economy and public health.

To reduce the transfer of invasive marine species into new environments via ballast water, the IMO published the BWM in 2004. Finland's ratification of the BWM in September 2016 triggered the BWM Convention entering in to force on 8th September 2017.

The Convention

Compliance with the BWM Convention sits with the ship-owner and it applies to all ships including submersibles, floating craft, floating platforms, FSUs and FPSOs. There are some exemptions, such as military vessels.

Therefore, from the 8th September 2017, all ship-owners will be required to manage their ballast water on every voyage by either exchanging or treating it using an approved ballast water treatment system.

Achieving Compliance

To achieve compliance with the BWM Convention, ship-owners will need to fit equipment to each vessel that will treat ballast water as it is either taken on board or discharged. Furthermore, any equipment fitted will need to be capable of treating ballast water at a rate that at least meets the usual pumping rate (for each specific ship) when taking on and discharging ballast.

The BWM Convention does not specify which water treatment method should be used and that decision will need to be made by each ship-owner on a ship by ship basis. Currently, there is a selection of methodologies that have been developed and can be employed, including but not limited to using;

- Ultra violet light

- Heat to sterilize
- Ultra sound
- Oxygen removal

Most on board treatment systems will require, depending on ship size, an overall space of about 25 cubic meters per ship for installation. This space is unlikely to be in one place and extensive plumbing throughout the ship will also be required.

The cost of this equipment is hard to calculate exactly but current estimates start at, per vessel, £250,000 to in excess of £1million for a capesize vessel. This will be a significant capital expenditure for ship owners. It is also anticipated that this cost will be too high for many older vessels which will likely be scrapped.

Dry Bulk Vessels

There is one potential issue that is peculiar to bulk carriers. Most ships have ballast tanks in locations throughout the structure of the vessel – bottom tanks, forward and aft tanks and side tanks. Larger bulk carriers are no exception however many larger vessels have top tanks. Top tanks tend to empty using gravity rather than being pumped empty as a bottom tank would be. This means that larger bulk carriers with top tanks will require significantly more work and plumbing installed for the water in these tanks to be treated and this will increase the installation cost to the ship owner.

Dry Bulk terminal Owners and Operators

The immediate implications to owners and operator of dry bulk terminals are negligible. It is when the BWM Convention enters in to force that the implications you might face will increase.

From September 2017, terminal owners and operators cannot be held responsible for the failure to treat ballast. However, the failure of the ships that you load or discharge to meet the requirement could have an effect on you and your operations. The most likely being that Authorities (Port State Control) would halt the ballast discharge/loading operation mid process due to a non compliance issue. This would inevitably impact the cargo loading or discharging process which raises many questions such as who would pay for the issues this would cause with the ship, the cargo, the cargo buyer/seller, the berth, the terminal, the port etc.

Vetting

Many terminals operators exercise due diligence when considering a vessel and conduct extensive checks on them before engaging their services. The DBTG secretariat has spoken with some Members who as standard, conduct vessel checks but were not aware of the BWM. It is therefore recommended that compliance with the BWM is built in to your checking procedures in readiness for September 2017.

Laytime

Some of the better treatment systems currently available to ship owners for installation have a limited capability in the per hour tonnage of ballast water treatment, i.e. the treatment systems are not capable of matching the ballast discharge rates of the normal ships pumps. In the case of larger vessels, in order for ballast discharge rates to be maintained (and not slow down the loading process) more than one system will need to be fitted. Failure of the ship owner to do so will reduce the terminal operator's ability to maintain normal cargo loading/discharge rates. Therefore, from September 2017, Charter Parties should be carefully examined prior to signature to ensure ballast water discharge rates will not hinder the terminal operator's ability to meet the specified laytime.

Potential for disaster

Meeting the requirements of the BWM is going to be a significant challenge for ship owners. However, the shipping industry is nothing if not resilient and there is speculation that some larger ports and port facilities are considering the installation of land based systems or specialist barges to treat ballast water for the ship owner who has not fitted ballast water treatment equipment on board. This would of course be a service that the ship owner will have to pay for but that would be far cheaper than fitting an on board system.

Whilst this might sound like a good solution for some, DBTG would urge Members to think carefully before considering any such installation or the engagement of a barge facility. The BWM Convention places the responsibility to meet its requirement firmly on the ship owner. The moment a third party becomes involved, such as a land based or barge facility, the legal questions that arise, particularly regarding liability, are too extensive to list here.

Conclusion

The Ballast Water Management Convention will enter in to force in September 2017. It is designed to make the ship owner responsible for the ballast water he carries and holds him liable for failure to do so. It might be reasonable to assume that is the end of the matter for terminal owners and operators however there will be implications from it that will affect other sections of the supply chain.

The aim of this paper is to provide an insight about a new piece of Regulation to DBTG Members. This paper is not definitive and DBTG will continue to monitor progress as September 2107 nears. If this paper has raised question for you or you would like to discuss the matter further, please do not hesitate to contact us via nic@drybulkterminals.org

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