

## Ratification of the Ballast Water Management Convention September 2016

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Ratification of the Ballast Water Management (BWM) Convention has been triggered by Finland, the 52nd State to ratify the Convention, with the country's documents of accession being lodged on the 8th September 2016. The criteria for entry into force (EIF) of the Convention was two-fold: 30 countries or more were required to ratify the Convention and the world tonnage of those ratified had to be equal to, or more than, 35%. The number of countries necessary was reached several years ago and Finland's ratification has now pushed the world tonnage figure over the tipping point to 35.14%. The Ballast Water Management Convention will now enter into force in 12 months, on the 8th September 2017.

Aimed at preventing the spread of harmful and invasive aquatic species in ships' ballast water, the BWM Convention requires ships to have procedures in place for the management of ships' ballast water and States to have the means of checking for compliance.

The BWM Convention applies to all vessels (but there are a limited number of exceptions to the Convention). All ships over 400 GT must have:

- An approved Ballast Water Management Plan (BWMP) on board
- a Ballast Water Record Book on board
- been surveyed and provided with an International BWM Certificate. For ships whose flag has not ratified the Convention, a BWM Certificate of Compliance can be provided. Both of these certificates are valid for 5 years.

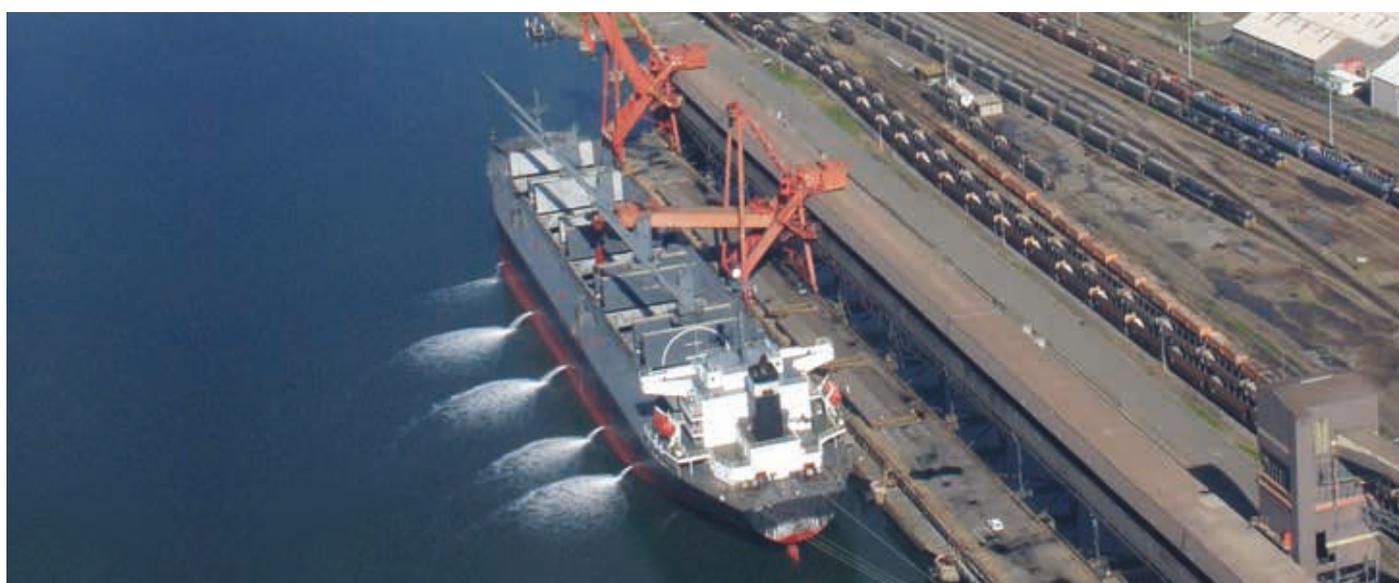
### **Note:**

Existing vessels are those constructed (ie the keel is laid) before the Convention EIF on 8th September 2017. Newbuild vessels are those constructed after EIF.

For existing ships, compliance (ie having fitted a Type Approved and operational BWM system to treat ballast water) must occur

by the first IOPP renewal survey after 8th September 2017. Depending on the date of the last dry-docking for IOPP renewal, compliance might not be needed until over 4 years after the date of EIF, however for some vessels, compliance may be necessary on the date of EIF. For newbuild vessels constructed after 8th September 2017, compliance must be on delivery.

| Construction Date   | Ballast water capacity (m <sup>3</sup> /h) | Date when a BWMS must be used for compliance   |
|---|--|--|
| Existing vessels (ie constructed before 8th September 2017) | All  | First renewal survey (associated with the IOPP certificate) following entry into force (EIF) of the Convention |
| New vessels (ie constructed on or after 8th September 2017) | All  | On delivery  |



## Advice to Shipowners

Shipowners must prepare for entry into force on 8th September 2017 by assessing the ballast water requirements of their vessels. Given the previous uncertainty of when the Convention would be ratified, many shipping companies may have begun the assessment process and benefit from being further forward in the procedure than others. Many factors affect the BWMS requirements of a vessel, including:

- The space available on board. For example, in the case of an existing vessel, can a modular BWMS be fitted, will it be necessary to use a port-based BWMS or to apply for an exemption?
- ballast water capacity of the vessel. This is important for larger vessels since not all BWMS are approved for, or capable of, ballasting large quantities of ballast water
- amount of energy necessary to operate the system. For example, can existing auxiliary generators cope with additional power requirements of the BWMS?
- type of vessel. For example, will an approved explosion proof BWMS be required?
- compatibility with existing systems on board. For example, can a BWMS be easily integrated into existing ballast systems?
- crew safety. For example, are crew trained properly with the handling and storage of any chemicals used with the BWMS?
- operating time. For example, does the BWMS require a long journey time for treatment to be completed?
- CAPEX and OPEX costs. For example, retrofitting will cost more than outfitting a newbuild, and some treatment types require more power to operate the process, such as BWMS using electrolysis or UV irradiation technologies
- trading routes. For example, will operations be carried out in freshwater and so a BWMS approved for use in freshwater will be required? Similarly, will the vessel be ballasting in US waters in which case the BWMS must be approved by the USCG for use in US waters.

It is imperative to research BWMS options on the market and begin communications with several ballast water management manufacturers, or choose an intermediary to do so. A number of companies and organisations offer assistance with the

treatment system decisions process, survey, installation, crew training and documentation. The retrofitting of a BWM system generally takes longer and is more complicated than integrating the system into a newbuild. This makes the process more expensive. Waiting too long to commit to an installation may mean that the chosen BWM system manufacturer cannot meet demand, dry-docking time is not available for installation or compliance extensions are not applied for in time. This will result in compliance schedules not being met. Since an early test for compliance by Port State Control is to check for crew knowledge and BWM system operational capability, shipowners must make sure that they and their crews are trained and understand the systems that are installed.



If a vessel trades to the USA and needs to ballast in US waters, the system chosen will also have to be compliant with USCG ballast water regulations. These are slightly different to the IMO BW Convention in that different BW capacities of vessel (that have their keel laid before 1.12.13) are required to be compliant at different times. To be allowed to ballast in US waters, the BWM system will have to have been awarded temporary AMS certification and eventually be granted USCG Type Approval. It is the responsibility of the BW manufacturer to do this. The USCG has yet to Type Approve any BWMS, so having communications with several manufacturers will increase the likelihood of dealing with a BWM system that will be compliant with both IMO and US regulations in the long term.





| Preparation for Compliance   | Details  |
|--|--|
| Understand the relevant regulations (IMO and other national regulations) | <p>For the BWM Convention, ensure that:</p> <ul style="list-style-type: none"> <li>• BWE or BWT is carried out</li> <li>• BWMP is followed</li> <li>• BW record book is used properly</li> <li>• BWTS is used and maintained as per manufacturer’s guidelines</li> </ul> <p>If ballasting in US waters, ensure that the different timescales and criteria for compliance are understood, for example a BW reporting form must be submitted to the US authorities 24 hours before arrival at a US port.</p> |
| Check of current ballast measures  | Identify any changes needed for compliance, for example multi-use tanks, pumping and piping arrangements.  |
| Produce a Ballast Water Management Plan (BWMP)                           | This should be started at the earliest opportunity and can be updated as the plan develops.  |
| Select and install a BWMS  | The research and preparation needed for this is considerable and must not be underestimated.   |
| Crew training  | It is imperative to develop a staff training programme covering obligations, ballast operations, maintenance of the system, and safety.  |
| Finalise the BWMP  | This should be submitted for internal approval then to Class or flag for approval.   |
| Survey and certification   | Having completed the preparations above, arrange for an initial survey and provision of an International Ballast Water Management Certificate or Certificate of Compliance.  |

*(Guidance for Shipowners and Operators, Lloyd’s Register, August 2016)*

**Dr Linda Churcher**  
**Senior Technical Editor**  
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