



## Key Issues

# CO<sub>2</sub> Emission Reporting

Over the next five year period, at an estimated collective cost to the industry of as much as US\$80 billion, some 40,000 ships are expected to have to install expensive new ballast water treatment systems if they wish to continue trading.

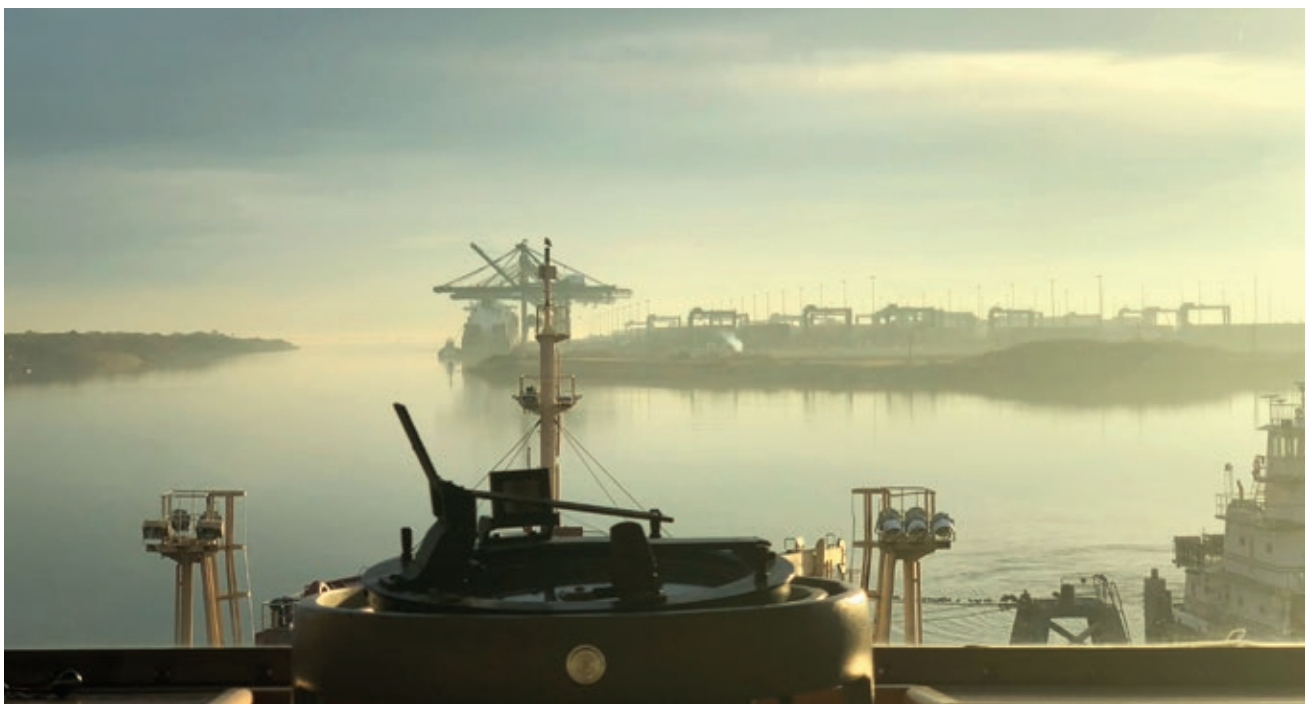
September 2019 will mark an important stage in the implementation of the IMO Ballast Water Management (BWM) Convention following its global entry into force two years ago. This is because existing ships (i.e. ships constructed before 8 September 2017) will be required to install new treatment systems at the time of their first International Oil Pollution Prevention (IOPP) renewal survey on or after 8 September 2019. This followed the decision by the IMO Marine Environment Protection Committee (MEPC) in 2017 – at the request of ICS and the industry – to adjust the Convention's implementation dates.

The purpose of the BWM Convention is to address the problem of invasive marine organisms which, if inadvertently transported in ships' ballast water tanks, can have damaging impacts on local ecosystems. The industry has always supported the objectives of the Convention, having implemented voluntary measures since the 1990s. Nevertheless, the BWM Convention has proved to be one of the most complex and controversial pieces of technical regulation ever developed by IMO. It was adopted under huge political pressure back in 2004, when the technology required for ships to treat millions of gallons of ballast water simply did not exist outside of a laboratory. As a consequence, the enormous challenges of

installing completely unproven systems were dramatically underestimated, first by the equipment manufacturers and then by IMO Member States.

Apart from the economic cost (typically US\$1-5 million per ship), meeting the Convention's requirements presents ship operators with a serious challenge because of the expected lack of shipyard and manufacturing capacity needed to retrofit the new treatment systems on so many vessels. Decisions about retrofitting are all the more difficult if the ships are approaching the end of their typical 25 year life. Many shipowners will now need to make important financial choices about whether or not to install the new equipment or, because of the potentially prohibitive cost, send older ships for early recycling.

The MEPC's decision on implementation dates was a victory for common sense and has hopefully provided necessary time for shipping companies to identify and invest in far more robust technology to the benefit of the environment, as they will now be able to select equipment for existing ships that has been type-approved in accordance with the more stringent standards that IMO adopted in 2016. The industry should therefore have greater confidence that the systems which ships are required to install will indeed be fit for purpose in most operating conditions, which was not the case with several of those systems initially approved by maritime administrations using the original IMO guidelines, and then installed by 'early movers' before the Convention requirements took effect.





The principal reason for IMO's decision to delay implementation for existing ships until after September 2019 was that the type-approval standards adopted for the complex new treatment systems were unable to ensure that the equipment would actually meet the Convention's treatment standards and be acceptable to all Port State Control authorities worldwide. In 2016, following a major industry campaign led by ICS over several years, the IMO MEPC adopted revised and more robust type-approval standards. These have now been included in a new mandatory Code for Approval of Ballast Water Management Systems which was finally adopted in 2018.

IMO has recommended that administrations should apply these revised standards as soon as possible. However, they only became mandatory for new system approvals in October 2018, and only systems being installed after October 2020 will be required to have been approved in accordance with the new IMO Code. Shipping companies have therefore been strongly advised by ICS to put pressure on manufacturers by only considering treatment systems for installation that have been certified in accordance with the revised IMO type-approval standards.

There are many other significant changes to the IMO ballast water regime which ICS has had to persuade governments to agree in recent years, in order to make the Convention ready for implementation. In addition to overcoming resistance from equipment manufacturers to making the IMO type-approval guidelines sufficiently robust, these have included: the removal of the original fixed implementation dates; the removal of a requirement to install equipment by the ship's next intermediate survey (if this came sooner than the next renewal survey); and – most important – measures to ensure that 'early movers' would not be unfairly penalised by Port State Control.

ICS and the industry have also had to persuade IMO to adopt fairer Port State Control guidelines relating to the timing of sampling during inspections, and guidance to coastal states on what should be expected of ships operating in areas where ballast water exchange cannot be conducted in accordance with the Convention (as required since September 2017) until treatment systems can be fitted.

The IMO Harmonized System of Survey and Certification (HSSC) guidelines now include an additional initial survey item related to the issuance of the International Ballast Water Management Certificate (IBWMC). This survey item requires verification by the administration that a biological efficacy test of each ship's ballast system has been carried out following installation, and that documented evidence is provided to show compliance of the treated ballast water discharged from the system through sampling and analysis. In October 2018, with considerable input from ICS, IMO adopted additional guidance relating to the time of commissioning. This means that every BWM system will now have to be proven to be biologically effective prior to issuance of the IBWMC. This should therefore give shipowners the opportunity to verify that biological efficacy has been tested and complied with at the time of the system's installation, and to take appropriate action if necessary.

ICS has always fully supported the objectives of the BWM Convention. Following its entry into force, the industry is at last able to focus fully on implementation and making this a success. It is now in everyone's interest to ensure that the new IMO regime will deliver genuine environmental benefit, commensurate with the great collective cost of installing the required new treatment systems across the entire world fleet.

ICS has developed some comprehensive advice and information for shipping companies about the implementation of the BWM Convention in the form of answers to 'Frequently Asked Questions'. These are available free of charge via the ICS website and are being updated regularly.