UK P&I CLUB

Legal Briefing

MARCH 2011

ENVIRONMENTAL LAW

New regulations for the control of ships' ballast

UK P&I CLUB IS MANAGED BY **THOMAS MILLER**

About us

This briefing is one of a continuing series which aims to share the legal expertise within the Club with our Members

A significant proportion of the expertise in the Managers' offices around the world consists of lawyers who can advise Members on general P&I related legal, contractual and documentary issues.

These lawyers participate in a virtual team, writing on topical and relevant legal issues under the leadership of our Legal Director, Chao Wu.

As part of Thomas Miller that virtual team can also call on executives who support the UK Defence Club and the experience and expertise that serves the largest defence mutual in the world, with over 3,500 owned and time chartered ships entered.

If you have any enquiries regarding the issues covered in this briefing, please contact the team via Chao Wu (chao.wu@thomasmiller.com or +44 20 7204 2157) and we will be pleased to respond to your query. The team also welcomes suggestions from Members for P&I related legal topics and problems which would benefit from explanation by one of these briefings.

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Jacqueline qualified as a barrister and later as a solicitor. She joined Thomas Miller in 1996 and now works mainly with the Club's Members in Japan. She speaks Malay, Hokkien and French. Jacqueline is a director with Thomas Miller.

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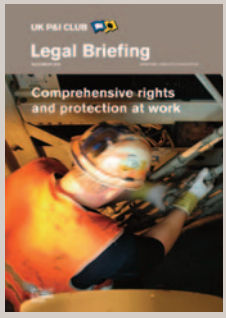

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A safer and more effective management of ballast water

On 13th February 2004, the IMO adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments.

The purpose of the Convention is to develop a safer and more effective management of ballast water that would eliminate the risk of harmful aquatic organisms and pathogens spreading from one part of the world to another causing harm to the environment, human health and property. The Convention aims to achieve this objective by instituting a series of regulations to manage the transfer and the discharge of ships' ballast water.

The main obligation of the Convention is for parties to undertake certain actions in order to prevent, minimize and ultimately eliminate the transfer of harmful aquatic organisms and pathogens through the control and management of the ships' ballast water and sediments.

When will the Convention come into force?

The Convention will come into force one year after thirty states representing 35 per cent of the world's merchant shipping tonnage have signed it without reservation or have ratified it.

There is general support for this Convention as it is hoped that it will standardise the international requirements on ships and avoid a proliferation of local regulations with varying requirements. Countries which have already implemented their own national legislation in relation to ballast water include Australia, Argentina, Brazil, Canada, Chile, Georgia, Israel, Lithuania, New Zealand, Panama, Peru, Russia, Ukraine and USA.

At the time of writing, 27 states representing 25.32 per cent of world merchant shipping tonnage have ratified the Convention and it is therefore likely to come into force in the not too distant future.

What kind of ships does it apply to?

Any ship (designed or constructed to carry ballast water) over 400 gross tons, operating under the flag or under the authority of a party to the Convention, as long as the ship is not solely designed for operation on the high seas, within just one jurisdiction or with ballast water in sealed tanks.

Who will the Convention apply to?

The Convention will apply to ships from flag states that have ratified and also to ships entering the jurisdiction of those states.

What are the standards to be applied?

The Convention recognises that ships differ in type, size and configurations and it initially allows for two standards of ballast water management.

REGULATION D – 1
Ballast Water Exchange Standard (BWE)

Ships performing ballast water exchange must exchange at least 95 per cent of the ballast water in the ship's ballast tanks. This ballast water exchange shall be conducted at least 200 nautical miles from the nearest land, or where not possible, then at least 50 nautical miles from the nearest land, and in water that is at least 200 metres deep.

In sea areas where the distance from the nearest land or the depth does not meet the above parameters, the port state may designate areas where ships can conduct ballast water exchange.

There are two main methods for conducting ballast water exchange.

(i) Sequential method – a process by which a fully segregated ballast tank is completely emptied and then refilled with open ocean water. Tanks can be emptied individually or in sequence.

(ii) Flow-through method – a process by which open ocean water is pumped into a full ballast tank and this water is allowed to flow through and to overflow from the tank. Pumping through three times the volume of each ballast tank will be considered to meet the 95 per cent volumetric exchange standard.

The BWE standard is only acceptable until January 2014 or 2016 (depending upon the ballast capacity of the ship). Thereafter, all ballast water will need to be treated.

REGULATION D – 2
Ballast Water Performance Standard (BWP)

Under this regulation, all ballast water must be treated before discharge to ensure there are fewer than 10 viable organisms per cubic metre larger than 50 micrometres and fewer than 10 viable organisms per millilitre between 10-50 micrometres.

In addition, certain micro organisms such as *Vibrio cholerae, Escherichia coli* and *Intestinal entercocci* are classed as indicator microbes and it is further stipulated that discharge of these indicator microbes must not exceed certain specified concentrations. Samples will be taken from the ballast water and tests carried out in laboratories.

Ballast water may be treated in the following ways:

(i) Mechanical treatment – by filtration/separation

(ii) Physical treatment – using sterilisation by ozone, ultraviolet light, ultrasonic, pressure, oxygen removal, electric current or heat treatment

(iii) Chemical treatment – by adding an active substance (chemicals or biocides, organisms or biological mechanisms) to the ballast water but the active substance must be pre-approved by the IMO

Other alternative treatment systems may be acceptable if they provide the same level of protection and are approved by the IMO.

Sediment management for ships

The ship's Ballast Water Management Plan must also contain provisions for the removal and disposal of sediments from the ballast tanks.

Parties to the Convention also undertake to ensure that adequate facilities are provided for the reception and the safe disposal of sediments without impairing or damaging the environment, human health, property or resources in that party's state or of other states.

Duties of shipowners

In order to check and assist with the compliance to the above mentioned regulations, the Convention imposes strict requirements in relation to documents that should be on board the ship at all times. Consequently, each ship must have on board the following:

1. Ballast Water Management Plan
This plan is specific to each ship and must detail safety procedures for the ship and the crew as well as actions taken to implement the requirements of the Convention. It must also include the procedures for the disposal of sediments at sea and to shore, designate the officer on board in charge of the implementation of the plan and contain reporting requirements. If this plan is written in the working language of the ship, which is not English, French or Spanish, then a copy of the plan translated into one of these languages must be included.

2. Ballast Water Record Book
This book may be in the form of an electronic record system or it may be integrated into another record book or system. It shall record each operation in relation to ballast water (including accidental and exceptional discharge) and must be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter retained by the owners for a further minimum period of three years. Again, if the entries in this book are not in English, French of Spanish then the entries in the book shall contain a translation into one of these languages.

3. International Ballast Water Management Certificate
All ships to which this Convention applies will need to have a valid International Ballast Water Management Certificate on board. This certificate

may be issued by the flag state or by surveyors or organizations nominated by the flag state to issue the same. Once issued, this certificate will be valid for five years but during that period, the ship will be subjected to a number of surveys by their flag state to ensure full compliance with the requirements of the Convention at all times.

The Convention allows Port State control officers to board the ship to check that the ship has on board a valid certificate, to inspect the Ballast Water Record Book and to take a sample of the ship's ballast water. Should any concerns come to light during an inspection, a more detailed inspection may be carried out but all efforts should be made to avoid undue delay to the movement or the departure of the ship.

Timetable for compliance

The application of the Convention's guidelines varies depending upon the ship's ballast water capacity and the construction year of the ship.

Ship constructed before 2009

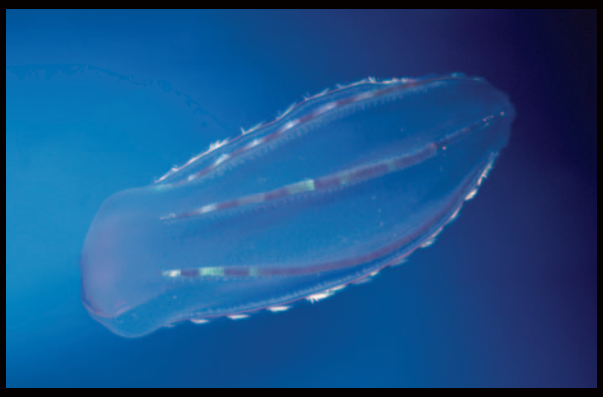
a) With a capacity between 1500-5000 m³
- Until 2014 - must comply with at least a BWE or a BWP standard
- From 2014 - must comply with at least a BWP standard

b) With a capacity of less than 1500 or greater than 5000 m³
- Until 2016 – must comply with at least a BWE or a BWP standard
- From 2016 – must comply with at least a BWP standard

A ship constructed before 2009 shall comply with (a) or with (b) not later than the first intermediate or renewal survey, whichever occurs first, after the anniversary date of delivery of the ship in the year of compliance.

Ship constructed in or after 2009 with a capacity of less than 5000 m³
- Must comply with at least a BWP standard

Ship constructed in or after 2009, but before 2012, with a capacity greater than 5000 m³
- Until 2016 – must comply with at least a BWE or a BWP standard
- From 2016 – must comply with at least a BWP standard



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North American Comb Jelly *Mnemiopsis leidyi* is native to the Eastern Seaboard of the Americas, and has been introduced to the Black, Azov and Caspian Seas, where it reproduces rapidly. Feeds excessively on zooplankton; altering the food web and ecosystem function. Contributed significantly to collapse of Black and Asov Sea fisheries in 1990s, with massive economic and social impact.

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The Mitten Crab *Eriocheir sinensis* is native to Northern Asia but has been introduced to Western Europe, the Baltic Sea and the west coast of North America. They are known to cause erosion and siltation in river banks and dykes by burrowing. They prey on native fish and invertebrate species, causing local extinctions during population outbreaks. Interferes with fishing activities.

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North Pacific Seastar *Asterias amurensis* has been introduced to Southern Australia from the Northern Pacific. Reproduces in large numbers, rapidly reaching 'plague' proportions in invaded environments. Feeds on shellfish, including commercially valuable scallop, oyster and clam species.

Ship constructed in or after 2012 with a capacity greater than 5000 m³

- From 2012 - must comply with at least a BWP standard

Sanctions

Sanctions are established under the law of the flag state for the ship concerned and these sanctions will be applicable wherever the violation occurs.

If the violation occurs within the jurisdiction of any party to the Convention, that party may either report the violation to the flag state and provide the flag state with all the necessary information and evidence. Alternatively, the party may apply its own sanctions established pursuant to the Convention, to the violating ship. Parties to the Convention must ensure that sanctions provided under their laws are sufficiently severe to discourage violations of the Convention.

The ship in breach may also be warned, detained or excluded from the port or offshore terminal at which the ship was operating at the time of the breach.

Under the Convention, parties are entitled to adopt more stringent measures for the management of ballast water and if such measures are adopted, then they will prevail over the application of the Convention.

Allowed exceptions

In the limited circumstances listed below, the Convention allows non-compliance with its requirements during the discharge or uptake of ballast water:

- Emergency situations or saving life at sea
- Accidental discharge resulting from damage to ship or equipment (but only if all reasonable precautions have been taken before and after the occurrence of the damage and provided that this damage has not been wilfully or recklessly caused)
- For the purpose of avoidance or minimisation of pollution incidents from the ship
- Uptake and discharge of ballast water on the high seas
- Discharge of ballast water at place where the ballast water originated (provided there has been no mixing with unmanaged ballast water and sediments from other areas)
- If another party to the Convention grants a specific exemption for their jurisdiction

What shipowners need to do

1. Conduct a study of all ballast water treatment systems available

Modifying or installing a ballast water treatment system is very costly. Shipowners would therefore want to invest in a system that will enable them to comply fully will all regulations, current and anticipated. Unfortunately, many uncertainties such as those listed below, are making the choice of a suitable system extremely difficult for shipowners.

- There is now a sufficient choice of equipment for ships with ballast capacities below 5,000 m³ but this is still not the case for ships with ballast capacities above 5,000 m³.
- New systems submitted for approval are not being approved sufficiently quickly, thus limiting choice.
- Costs aside, there are many other sometimes competing considerations such as energy efficiency, maintenance requirements, safety of use, the type of water the system will be required to work in, etc., which all need to be considered.
- There are not enough installation facilities to cope with the demand for modification or installation works.
- Recent US legislation has further added to the confusion. The current New York State ruling requires a performance standard up to 1,000 times more stringent than the BWP standard in the Ballast Convention. There is however at present no known equipment capable of meeting this standard.

2. Come up with a Ballast Water Management Plan

If, in spite of the above uncertainties, a shipowner is able to decide upon a suitable ballast water system or equipment for his ship, he will then need to get the system approved by the ship's Classification Society. The Classification Society, if authorised by the flag state to do so, will then issue the ship with a complying certificate.

3. Ensure crew and staff receive appropriate training

All crew members and staff who will be involved in operating the ballast water management system onboard the ship must be properly trained to do so. Their training must involve being made aware of all safety aspects associated with the system including the handling and the storage of active substances to be used.

Ballast Water Management Convention 2004

Signatories

Argentina	Subject to ratification
Australia	Subject to ratification
Brazil	Subject to ratification
Finland	Subject to acceptance
Maldives	Subject to ratification
Netherlands	Subject to approval
Spain	Subject to ratification
Syrian Arab Republic	Subject to ratification

Contracting States

Date of deposit of instrument

Albania	Accession	15 January 2009
Antigua and Barbuda	Accession	19 December 2008
Barbados	Accession	11 May 2007
Brazil	Ratification	14 April 2010
Canada	Accession	8 April 2010
Cook Islands	Accession	2 February 2010
Croatia	Accession	29 June 2010
Egypt	Accession	18 May 2007
France	Accession	24 September 2008
Kenya	Accession	14 January 2008
Kiribati	Accession	5 February 2007
Liberia	Accession	18 September 2008
Malaysia	Accession	27 September 2010
Maldives	Ratification	22 June 2005
Marshall Islands	Accession	26 November 2009
Mexico	Accession	18 March 2008
Netherlands	Approval	10 May 2010
Nigeria	Accession	13 October 2005
Norway	Accession	29 March 2007
Republic of Korea	Accession	10 December 2009
Saint Kitts and Nevis	Accession	30 August 2005
Sierra Leone	Accession	21 November 2007
South Africa	Accession	15 April 2008
Spain	Ratification	14 September 2005
Sweden	Accession	24 November 2009
Syrian Arab Republic	Ratification	2 September 2005
Tuvalu	Accession	2 December 2005

The combined merchant fleets of the 27 Contracting States constitute 25.32 per cent of the gross tonnage of the world's merchant fleet

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