SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

INTRODUCTION

The enclosed Bulletin # 09 (v.8) details up-to-date information of world-wide local ballast water regulations as of 13 July 2016.

Actions required

The Master is responsible for the implementation of this Bulletin:

1) Update Bulletin folder onboard
2) Insert bulletin in the BWMP folder
3) Familiarize officers in charge of ballast operation
4) Instruct deck and engine officers to consult VSL Bulletins 09 and SAF77 during voyage planning phase
5) Confirm implementation in writing to DPA

Completed

Follow-up Checklist

1) Bulletin folder onboard..... updated ☐

Note: Remove from onboard files and destroy all previous versions of this bulletin

2) Bulletin inserted in the BWMP..... done ☐
3) Officers in charge of ballast operation .....familiarized ☐
4) Deck and engine officers..... instructed ☐
5) Implementation to DPA ..... confirmed ☐

Completed

VSL BULLETIN NO. 09

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Revised and Re-Issued by: V. Ships Leisure Marine Safety and Quality Department
13 July 2016

SUMMARY OF EXISTING REGIONAL BALLAST WATER LEGISLATION

The International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 will enter into force 12 months after ratification by min of 30 States, representing min 35 per cent of world merchant shipping tonnage. http://globallast.imo.org

As of *13 June 2016*:*51* IMO Contracting States have ratified it, representing however only *34.87* % of the world tonnage. Therefore many countries are adopting local legislation till the Ballast Water Convention comes into force in order to minimize the environmental impact of the introduction of harmful invasive aquatic species with ballast water discharges.

This Bulletin is therefore issued to advise all vessels of the current status with respect to local ballast water legislation world-wide as of *July 2016*

It has been developed from information supplied by various sources like the International Chamber of Shipping, Intertanko, Classification Organizations, the US Environmental Protection Agency and verified, where possible, according to official information sources, which are listed in the document for further reference.

Additional information, if available, can also be obtained from the onboard copy of Guide to Port Entry.

Any variance to the advice contained in the Bulletin that may be encountered should be reported back in order to keep it updated as best as possible.

Latest applicable regulations are to be always verified through the Agent / Port State contacts or relevant official website in order to ensure compliance as legislation is constantly evolving.
Any concerns, as above, regarding local ballast water regulations should be addressed to: icclenv@vships.com

This Bulletin provides supplementary information in accordance with the ship's Ballast Water Management Plan (BWMP) onboard (per the SMS - FOM 335 and form SAF43 "Ballast Water Management Organization") and should constitute part of the training familiarization required by the BWMP.

It also supplements the FOM 338 US Vessel General Permit (VGP) Manual for the ("Clean Water Act, part 401") Individual States certifications imposing additional conditions to the Federal VGP on Ballast Water Management (and the information in form SAF77 "Worldwide Cruising Environmental Standards")

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Table of Contents

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **Antarctica**

The IMO adopted resolution MEPC.163(56) on 13 Jul 2007- "Guidelines for Ballast Water Exchange in the Antarctic Treaty Area"
Click here
The Antarctic Treaty Area is the area south of latitude 60º South including all ice shelves

The application of these Guidelines does not replace the requirements of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, but provide an interim Ballast Water Regional Management Plan for Antarctica

The summary of the requirements are:

- A Ballast Water Management Plan is required (generic as per our SMS FOM 335 or as a standalone document if approved by Class)

- A record of Ballast Water Operations maintained (as per SMS form SAF35)

- If discharge of ballast water is intended in the Antarctic area, exchange of the tanks intended to be discharged should be done in advance (preferably north of either the Antarctic Polar Frontal Zone or 60ºS, whichever is the furthest north) and at least 200 nautical miles from the nearest land in water at least 200 meters deep. (If this is not possible for operational reasons then such exchange should be undertaken in waters at least 50 nautical miles from the nearest land in waters of at least 200 meters depth).

    - *The Antarctic Polar Front (Antarctic Convergence) shall be deemed to be a line joining the following points along parallels of latitude and meridians of longitude: 50°S, 0°; 50°S, 30°E; 45°S, 30°E; 45°S, 80°E; 55°S, 80°E; 55°S°, 150°E; 60°S, 150°E; 60°S, 50°W; 50°S, 50°W; 50°S, 0°*

- Same as above is recommended if a vessel has taken on ballast water in Antarctic waters and is intending to discharge ballast water in Arctic, sub-Arctic, or sub-Antarctic waters.

- No release of sediments from cleaning of tanks is allowed in Antarctic waters

- For vessels that have spent significant time in the Arctic, ballast water sediment should preferably be discharged and tanks cleaned before entering Antarctic waters (south of 60ºS).

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **Australia, all States**

Under the Biosecurity Act 2015, it is an offence to discharge ballast water in Australian seas, unless an exception (as per Chapter 5 of the Biosecurity Act) applies. It is the responsibility of the vessel master to ensure all ballast water discharges meet one of the exceptions in Chapter 5 of the Biosecurity Act. Penalties of up to $360,000 may apply if a ballast water discharge does not meet the requirements prescribed by the Biosecurity Act.

Ballast water taken up at international ports and coastal waters outside Australia's territorial sea is considered high risk. It is a requirement that all high risk ballast water tanks undergo a deep ocean exchange, outside the 12 nautical mile limit, prior to arrival in Australian ports or waters.
Masters may use the ballast water management options outlined in section 3 of the Australian Ballast Water Management Requirements (v.6) to meet the requirements under the Biosecurity Act. Approved management options are:

- *exchange of ballast water conducted in an acceptable area*
- *discharge to an approved ballast water reception facility*
- *use of an IMO Type Approved Ballast Water Management System (BWMS)*
- *retention of high-risk ballast water on board the vessel*
- *use of low risk ballast water such as fresh potable water from a municipal water supply or onboard desalination system (supporting documentation needs to be provided)*

Ballast water must be exchanged to the equivalent of a 95 per cent (or better) volumetric exchange (sequential (empty/refill), flow-through or dilution). Ballast water exchanges must be conducted as far from the nearest land as possible, but not within 12 nautical miles from the nearest landmass (the outer edge of the Great Barrier Reef and part of the Torres Strait region are considered land) and, where possible, in water at least 50 metres deep.

A map of the waters acceptable for BWE within the Australian EEZ is available here

Section 6 of the Australian Ballast Water Management Requirements (v.6) should be referred to for the practical considerations and additional requirements related to the ballast water operations ie.

- *recording of tank soundings (and corresponding volumes) at the end of the 'emptying phase' so that the make up of the ballast mixture (min 95% managed water and/or max 5 % unmanaged water) to be discharged in Australian waters may be verified by the Department of Agriculture on arrival at an Australian port*
- *flushing one at a time or similar pairs of tanks*
- *conducting and documenting a ballast water pump test (template is available in attachment A of the Australian Ballast Water Management Requirements)*
- *prohibiting the use of portable stripping pumps etc.*

Ballast water management systems (BWMSs) may be used to manage ballast in Australian seas. The Director of Biosecurity determines which systems are approved for use in Australian seas. If a master is unsure if a particular BWMS is approved for use, they may contact seaports@agriculture.gov.au for confirmation.

Ballast water management plans should be consistent with the BWM Convention's Guidelines for Ballast Water Management and Development of Ballast Water Management Plans (G4 Guidelines). A ship-specific ballast water management plan must be approved by either a survey authority or the Administration of the vessel.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Vessels are required to maintain a ballast water record system to record the management of all ballast water taken up and discharged within Australian seas. This system may be electronic or in hard copy. This system should be separate to the deck log and be available for inspection by a biosecurity officer during an on-board inspection. The details that need to be recorded depend on the type of ballast water management used.

More information regarding the Australian Ballast Water Management Requirements can be found here

Reporting requirements:

The operator of a vessel must give a ballast water report if it is intended that the vessel discharge, or the vessel discharges, ballast water in Australian seas. The ballast water report form and guidelines for completion are available here

A ballast water report should be provided 12 to 96 hours prior to the intended discharge. Reports are to be submitted by email or fax to the Maritime National Coordination Centre.

E-mail: maritimeNCC@agriculture.gov.au
Phone: 1300 004 605
Fax: 1300 005 882

If the person in charge or the operator of the vessel becomes aware that the information included in the ballast water report was incomplete or incorrect, the operator must give the additional or corrected information to the department's regional office relevant to the next port of call, or to the Maritime National Coordination Centre as soon as possible.

Completed originals of the ballast water report, including any comments by a biosecurity officer on the back of the form, should be retained on the vessel and provided to a biosecurity officer when requested.

For every vessel visiting Australia, it is the Master's responsibility to ascertain what additional State / Territory Government ballast water management requirements, over and above the department requirements must be met for each Australian port on their vessel's itinerary.

- **Australia, State of Victoria**

Victoria, one of seven, maritime Australian States / Territories, has additional requirements for the management of *Australian-sourced domestic* ballast water *that are enforced by the Victorian State Government Environment Protection Authority (EPA Victoria) -* ports affected: Melbourne, Geelong, Hastings and Portland

EPA Victoria requires all vessels intending to visit a Victorian port to submit a ballast water report form detailing the origin of all ballast water on board. No domestic ballast water discharge is permitted in Victorian waters unless approval has been granted by EPA Victoria in writing.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

The *Flowchart – domestic ballast water management steps* (PDF 31KB) summarises the key steps that ships must take in order to meet their ballast water obligations and comply with the policy.

If domestic ballast water is intended to be discharged within Victorian waters (less than 12 nautical miles off the coast) and ports, it must be risk assessed and managed in accordance with the Victorian domestic ballast water management requirements.

An on-line risk assessment tool (registration and log-in required) is available at: https://management.marinepests.gov.au/bw/

Victorian requirements can be viewed and downloaded from the EPA Victoria website, EPA Victoria Ballast Water.

Reporting requirements:

The Victorian EPA requires all vessels intending to visit a Victorian port to submit a ballast water report form and log detailing the origin of all ballast water on board. No domestic ballast water discharge is permitted in Victorian waters unless approval has been granted by the EPA in writing.
The Victorian ballast water report form and the ballast water log should be submitted to EPA as soon as possible, preferably 24 hours prior to the ship entering Victorian state waters. *If a ship changes its declared ballast water status, the master should ensure EPA-Victoria is notified as soon as possible.*

Additional requirements apply to Victoria State coastal traffic that stipulate ballast water must be exchanged a*t* minimum of 3nm offshore.

EPA Vic maintains a helpline for ballast water enquiries: +61 3 9695 2547

- **Argentina**

All ships coming from foreign ports and carrying ballast water on board intended to be discharged, calling at Argentine ports in the River Plate, shall de-ballast or exchange ballast water as per the methods as per the IMO Ballast Water Convention: flow-through, over-flow, sequential exchange (but at min more than 150 nm from the below area outer limit), before entering the waterway and the "Special Protection Area" located in front of the river's external limit.

The "Special Protection Zone" is marked by an imaginary line from Punta del Este (Republic of Uruguay) to Punta Rasa, Cape San Antonio (Republic of Argentina). From there to a point located in latitude 37º 32' South, longitude 55º 23' West. From there to a point located in latitude 36º 14' South and longitude 53º 32' West. From there to the place of origin in Punta del Este.

Ships intending to discharge ballast water in the River Plate shall, to the best extent possible, carry out ballast tank cleaning to remove sediments in advance before entering the above areas as it is prohibited to do so in the River Plate or in the "zone of pollution prohibition".

Ballast water record keeping is required (ie SAF35, "Ballast Water Record Log")

Ships that can not comply with above shall retain ballast water on board, until they are again outside the River Plate basin and outside the "Special Protection Zone".

The Authorities (Prefectura Naval Argentina) may take samples of the content of ballast tanks, pipes and pumps to control the presence of aquatic harmful organisms, and to verify that the requirements of these regulations have been duly complied with.

Ships that have carried out proper ballast water exchange as required and utilizing the IMO recommended methods should have onboard ballast water with salinity more than 30 parts per thousand. If a sampling by the Authorities indicate that the ballast water is with salinity of less than thirty parts per thousand (30 mg/cm3), such ships shall be considered not to have carried out a satisfactory ballast water exchange or that it was carried out very near the River Plate, and will not be admitted to pump out ballast water.

The Authorities may seal ballast tanks and/or pump control valves for ships which will retain their waters whilst in the River Plate Basin.

More information (in Spanish) Ordinances #s 7 and 11 from 1998 at:
http://www.prefecturanaval.gov.ar/web/es/html/ordn_pdf/6-1998-7.pdf
http://www.prefecturanaval.gov.ar/web/es/html/ordn_pdf/6-1998-12.pdf

Some/Other Argentinean ports (ie Buenos Aires) may require that ship's ballast water intended to be discharged is chlorinated prior to calling. Upon confirmation of such requirement with the local agent/authorities, ballast tanks should be chlorinated with sodium chloride (liquid) at a ratio of 0.5 litres per tonne of water.

- **Bermuda**

No ship shall discharge any ballast water within Bermuda's territorial waters except to safeguard the safety of the ship, environment, and life. Bermuda's territorial waters are defined as the sea within twelve nautical miles of the coastal baselines

- **Brazil**

On 15 October 2005, Brazil adopted the IMO Ballast Convention and issued the NORMAM 20 regulations which were revised in 2014. The regulations require all vessels to carry out ballast water exchange prior to entering a Brazilian port or terminal by using a recognized method in an area no less than 200 nautical miles from the coast and with a water depth of at least 200m. If this is not possible, an exchange that takes place not less than 50 nautical miles from land at a water depth of at least 200 m is acceptable.

Vessels that have an operating Ballast Water Treatment System, with valid international certificate issued by the Competent Flag Authority, taking into account the Guidelines developed by the IMO, will be exempted from complying with above ballast water exchange measures.

All vessels operating between ports / river terminals in different river basins, where the transit is done by sea, should exchange the Ballast Water, unless they have onboard operational BWTS with valid

international certificate.
For purposes of this regulations watersheds, ports and existing river terminals are listed in Annex D of NORMAM20.

Vessels are required to have on board an approved Ballast Water Management Plan. For vessels from a Flag State that has not ratified the Ballast Water Management Convention the Plan must be approved by a "Letter of Compliance" from a Recognized Organization (Classification Society).

Ships must send a ballast water report form to the Harbour Master or his agent within 2 hours after mooring or anchoring the vessel at port. A copy of this report is to be retained on board (for minimum period of 2 years) for possible presentation to any other authorities.

Failure to employ ballast water management practices will result in a penalty, unless the vessel is exempted due to safety or voyage constraints or specifically exempted from the regulation.

There have been reports for Brazilian PSC taking samples of the ship's ballast water and if its density is below 1.020, imposing heavy fines on the vessel, on basis that if the ballast water had been exchanged "mid-ocean", the density would have been 1.025.

More information can be obtained from: secom@dpc.mar.mil.br

In English, reference IMO BWM.2/Circ.1:
http://bit.ly/xExNIx

In Portuguese (NORMAM 20/DPC Rev.1/ 2014):
https://www.dpc.mar.mil.br/sites/default/files/normam20.pdf

- **Canada**

Canada introduced regulations for waters under its jurisdiction intended to be harmonized as much as possible with the U.S. Coastguard requirements and those of the International Convention.

The regulations require vessels carrying ballast water taken up outside Canadian waters to either:

a) exchange ballast water more than 200nm from land in a water depth greater than 2000m, or
b) if during its voyage they have not navigated to an area more than 200nm from shore with a water depth of 2000m, to exchange ballast in an area at least 50nm from land with a water depth at least 500m.

A ship is not required to deviate from its intended voyage or delay it in order to conduct the above exchanges. A vessel may however be required to deviate from its intended voyage or delay its voyage in order to conduct an exchange within waters under Canadian jurisdiction.

All vessels are required to have a Ballast Water Management Plan, which however is not required to be approved by Flag or Recognized Organization.

If a ship is unable to exchange ballast as per the above due to impracticability, stability or safety concerns, alternative exchange zones have been designated depending on the ship's destination and

she may however be required to deviate or delay her voyage in order to conduct exchange in these zones.

More information can be found online at: http://bit.ly/ScXPnP
Or http://laws.justice.gc.ca/PDF/SOR-2011-237.pdf

The ballast water volumetric exchange efficiency is required to attain 95%, and if the exchange is conducted in an area not less than 50nm from shore a ballast water salinity of at least 30 parts per thousand is required.

If a ship is unable to exchange ballast water due to stability or safety concerns or equipment failure, then the Canadian authorities (Minister of Transport) must be notified at least 96 hours before entering Canadian waters, or as soon as is practical, alternative exchange zones may be designated or the ship may be required to retain the ballast on board.

Ballast water sediment must not be released into Canadian waters but may be disposed to reception facilities.
All ships are required to complete a ballast water report form in the format described in *TP 13617 or at* http://bit.ly/LcoI6j

and submit this to the Canadian authorities on completion of ballast water exchange. (The publication at the link above "A Guide to Canada's Ballast Water Control and Management Regulations" provides a concise summary of the Canadian Ballast Water regulations).

East Coast destinations to: antlanticballastwater@tc.gc.ca
or by facsimile: (902) 426-6657

West Coast destinations to: pacballastwater@tc.gc.ca
or by facsimile: (604) 666-9177

A copy of the submitted Reporting Form should be available onboard for 24 months.

Vessels reporting only residual ballast water onboard NOBOB (No Ballast On Board) and destined to the Great Lakes Basin are required to carry out mid-ocean ballast water exchange in an area more than 200 nm from shore (and in water more than 2000 meters deep whenever possible) or conduct saltwater flushing on the transit to the Great Lakes so as to eliminate fresh and or brackish water residuals in ballast tanks. If unable to comply, ships are required to advise the authorities (Minister of Transport) who may, if found that the vessel did not comply with best management practices, in consultation with the Master, request that the any ballast water taken aboard in the St Lawrence River or Great Lakes, be retained on board, treated on board or discharged to a reception facility and the vessel may be subject to inspection and detention if found to have detainable deficiencies.

More information for the Great Lakes Ballast water requirements is available in the USA States section

- **Canada – Vancouver**

Ballast water exchange in mid ocean before entering Canadian waters. No ballast water to be discharged in harbour until samples have been taken and analysed by the harbourmaster's representative. Exemptions:

- ships wishing to discharge less than 1,000 metric tonnes
- ships arriving from the US west coast, Canada and Alaska if the ballast water to be discharged originated from these waters
- stress of weather
- stability or hull stress concerns.

A harbourmaster's representative will require seeing either an entry (in English) in the logbook, an abstract of the logbook entry, or other formal record (company or administration). This must include the place where the original ballast was taken on, the position of exchange (latitude and longitude), the amount of ballast on board, and ballast tanks that have had water exchanged.
In case unacceptable ballast water is found onboard the ship will be required to retain it onboard or depart from the port and exchange it in outgoing current of the north side of the Strait of Juan de Fuca, west of race Rocks.

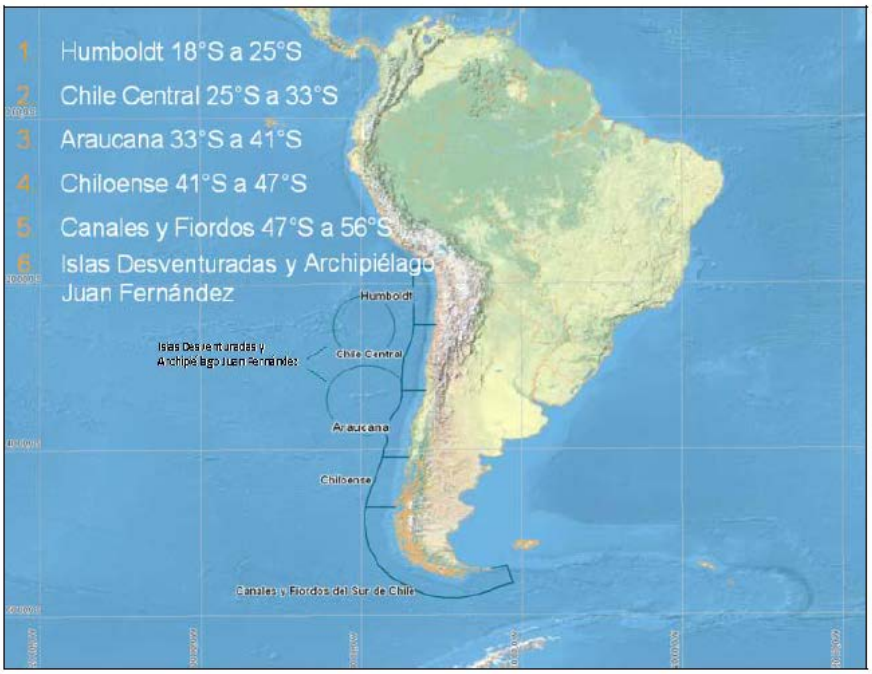
- **Chile**

Ballast water exchange is required in deep water at least 12 miles from Chilean coast measured from the baseline with entries in bridge and engine room logbooks (and SAF35, "Ballast Water Record Log"), showing geographical co-ordinates, amount replaced and what percentage of total ballast capacity represented. Ballast Water Reporting Form must be sent to Maritime Authorities in port before proceeding with discharge of ballast water.

Ships arriving from foreign ports which have not performed ballast water exchange for safety reasons etc. must retain ballast water onboard, but if need of de-ballasting arises in-tank treatment should be performed by the addition of 11 grams of powdered sodium hypochlorite, or 14 grams of powdered calcium hypochlorite, per tonne of ballast water, ensuring thorough mixing, and then allowing minimum 24 hours before beginning discharge of the treated ballast water. This method needs to be confirmed in advance with the local agents/ authorities and the Harbour Master can assign a special area/ anchorage outside of the port/ inland waters for de-ballasting.

Ships trading between Chilean ports should exchange their ballast "at least once" when crossing between different National Marine Eco-regions:

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION



If unable to exchange their ballast they should retain it onboard or perform the alternative in-tank treatment described above.

Reference IMO MEPC/Circ.308 from 1995:
http://www.intertanko.com/upload/Tim/Chilean%20Declaration.pdf

Chilean regulations (incl. Ballast Water Reporting form - Annex A) in Spanish can be seen here

- **China**

Requires a completed Ballast Water Reporting Form to be submitted to port agent. This form must be prepared before arrival and resubmitted to the Quarantine Officer when they come onboard. Only clean, colourless and odourless ballast water is allowed to be discharged in the port of Hong Kong. Authorities may check log and record books as well as take samples of the ballast water.

- **Colombia**

Ships and maritime craft engaged in international navigation from a foreign port and intending to deballast in Colombian waters or ports must conduct a total exchange of ballast water in oceanic waters at a distance of not less than 200 nautical miles and at a depth of not less than 200 metres, except when coming from the Caribbean Sea, in which case the distance shall be not less than 50 nautical miles and the depth not less than 200 metres. The exchange requirement is a 95% volumetric exchange in line with the requirements in the IMO's Ballast Water Management (BWM) Convention.

The master of the ship or maritime craft shall provide the harbour master's office with the "Ballast

Water Reporting" form together with the arrival notice, before discharging the ballast water (a copy of the form is to be retained onboard for 24 months).

Deballasting shall begin once it has been authorized by the National Maritime Authority through the harbour master's office. Performing it without authorization shall be subject to investigation and shall be punishable.

The ship or maritime craft shall not discharge into Colombian jurisdictional waters any sediments arising from ballast water management involving the daily cleaning of ballast tanks. However, such discharge shall be permitted where reception facilities exist.

Full text of the Colombian regulations (including Copy of the Ballast Water Reporting Form) can be found Here

- **Croatia**

Requires ballast water reporting 48 hrs prior to port call and deep see exchange of ballast water.

Reporting form (in xls) is available Here
Reporting form (in pdf) is available Here

Ballast Water Management Plans must be approved by competent authorities of the state whose flag the ship flies.

Full text of the Croatian Ordinance on Ballast Water Management and Control is available Here

See also Mediterranean Sea (REMPEC) section.

- **Egypt**

It has been reported that the port authorities in Alexandria require a letter requesting the discharge of ballast water by the Master. The letter is to detail the number of ballast tanks, the quantity of ballast water in each tank, the total quantity of ballast water to be discharged and a statement that the ballast water was changed in the Mediterranean Sea. Port authority permission is to be obtained prior to ballast discharge and a ballast tank sample may be taken.

See also Mediterranean Sea (REMPEC) section.

- **Georgia**

For all Georgian ports - ballast water exchange (BWE) must be conducted in the Black Sea. Ballast water treatment may be accepted, however owners are advised to conform first with the intended port (s).
Ballast Water Reporting Form is required to be submitted to Authorities.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **India**

It has been reported that the port of Mumbai requires reporting.

Whenever possible, conduct ballast water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth, taking into account Guidelines developed by IMO;
In cases where the ship is unable to conduct ballast water exchange as above, this should be as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth.

- **Israel**

Masters are required to provide ships' inspectors (Pilots) with a completed ballast water exchange report.
Ballast water that has not been taken on in the open ocean must be exchanged in open ocean beyond any continental shelf or fresh water current. Ships bound for Eliat must carry out exchange outside the Red Sea, when practicable. Ships bound for Mediterranean Ports must exchange in the Atlantic Ocean, when practicable.

See also Mediterranean Sea (REMPEC) section.

- **Jamaica**

All ships trading between Jamaica and the Republic of Cuba and the Republic of Haiti respectively are required to comply with the following measures when intending to operate in Jamaican waters:

1. Undertake Ballast Water Exchange in accordance with the relevant IMO Guidelines at least 50 nm from the coast of Jamaica and in water at least 200 m in depth
2. Have available for inspection a completed Ballast Water Management Reporting Form

- **Korea (South)**

Vessels visiting South Korean ports from Japan are in principle prohibited from loading ballast water within 50 miles of the Fukushima nuclear power plant, as well as at the ports of Hachinohe, Ishinomaki, Sendai, Soma, Onahama and Hitachi.

If a vessel cannot avoid loading ballast water in the above areas (e.g. ballasting is necessary to ensure the vessel's safety and seaworthiness) and discharging at South Korean ports, the ballast water should be exchanged in open sea prior to entering a South Korean port. The ballast water should be replaced by flushing through the ballast tanks with three times the volume of the ballast tanks capacity.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Local Port Authorities are inspecting vessels that have loaded ballast water in the listed ports and/or areas. Any vessels found in breach of the above shall be prohibited from discharging ballast within the port limits and/or may be required to leave the port in order to exchange the ballast water at open sea.

Vessels should report the ballast water exchange operation to the Korean port authorities when declaring port entry.

- **Lithuania**

Klaipėda State Seaport Shipping Rules - Procedure for Arrival and Departure of Ships at/from the Port - Prior to ship's entry into the port, a ship shall replace her ballast water with the Baltic Sea or North Sea waters except ships arriving from the Baltic Sea ports.

- **Mediterranean Sea (REMPEC)**

Guidance for **voluntary** ballast water exchange and management options to vessels transiting the Mediterranean Sea area are narrated in IMO BWM.2/Circ.35/ 15 August 2011:

Ships entering the waters of Mediterranean Sea area from the Atlantic Ocean (Straits of Gibraltar), or from the Indian Ocean through the Red Sea (Suez Canal) or leaving the waters of the Mediterranean Sea area to the Atlantic Ocean (Strait of Gibraltar) or to the Indian Ocean through the Red Sea (Suez Canal), should:

(a) undertake ballast water exchange before entering the Mediterranean Sea area, or after leaving the Mediterranean Sea area, as applicable, according to the standard set out in the D-1 Standard of the Ballast Water Management Convention, and at least 200 nautical miles from the nearest land and in waters at least 200 meters in depth;

(b) in situations where this is not possible, either due to deviating the ship from its intended voyage or delaying the ship, or for safety reasons, such exchange should be undertaken before entering the Mediterranean Sea area, or after leaving the Mediterranean Sea area, as applicable, according to the standard set out in the D-1 Standard of the Ballast Water Management Convention, as far from the nearest land as possible, and in all cases in waters at least 50 nautical miles from the nearest land and in waters of at least 200 meters depth.

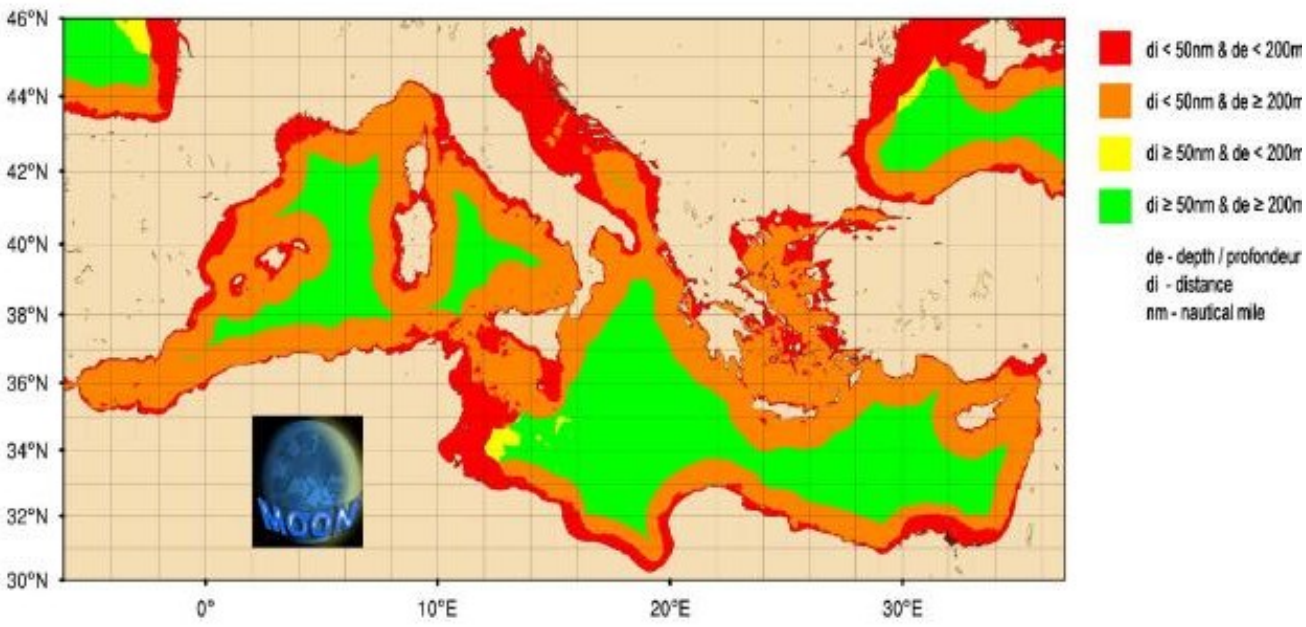
Ships should, when engaged in traffic between:

i. ports located within the Mediterranean Sea area; or
ii. a port located in the Black Sea area and a port located in the Red Sea area; or
iii. a port located in the Black Sea and a port located in the Mediterranean Sea area; or
iv. a port located in the Red Sea area and a port located in the Mediterranean Sea area:

(a) undertake ballast water exchange as far from the nearest land as possible, and in all cases in waters at least 50 nautical miles from the nearest land and in waters of at least 200

meters depth. The areas, one of which being unfit for ballast water exchange due its size, where such requirements are met in the Mediterranean Sea area, appear in the map provided below;

(b) in situation where this is not possible either due to deviating the ship from its intended voyage or delaying the ship, or for safety reasons, exchange of ballast water should be undertaken in areas designated by the port State for that purpose;



Each vessel calling at a port within the Mediterranean Sea area is required to have on board a Ballast Water Management Plan and to keep a record of all ballast water operations carried out.

- **Namibia**

No ballasting or de-ballasting shall take place within a port, except with the permission of the Port Captain and under such conditions as the Port Captain may impose in the interest of the safe, environmentally friendly, orderly, effective and efficient port working. A Ballast Water Declaration must be completed and sent to Port Captain of the port of arrival 48 hours prior to ship's arrival.

- **New Caledonia**

Ships intending to discharge ballast water must have previously conducted ballast water exchange in a minimum depth of 2,000 metres, by means of either the sequential method in which each ballast tank is pumped out and refilled, or the flow-through method in which each ballast tank is simultaneously filled and discharged, by pumping at least three times the tank volume, and allowing the water to

overflow. The ship must provide a completed New Caledonia Ballast Water Reporting Form to the Port Agent in New Caledonia, 24 hours before arrival and to the pilot upon arrival onboard.

- **New Zealand**

Requires mid ocean ballast water exchange >200nm offshore *in waters with depth>200 m*, by using either the "empty-refill" method *(replace >95% of the tank volume)*, or the "flow-through" method *(pump through 3-times the tanks volume*). *Alternative options:*

- *The ballast water is fresh water (<2.5 parts per thousand of sodium chloride)*
- *The ballast water has been treated using a shipboard treatment system listed in the MPI List of Approved Ballast Water Treatment Systems.*

It is prohibit*ed to* discharge sediments from the cleaning of holds, ballast tanks or anchor chain lockers into New Zealand's territorial waters (12 mile territorial limit). *Sediment or mud can only be landed and disposed of at a landfill approved by an MPI Biosecurity Inspector.*

The so called "Import Health Standard" (IHS) applies to ballast water loaded within the territorial waters of a country other than New Zealand and intended for discharge in New Zealand waters.

The Vessel Ballast Water Declaration must be completed for all vessels, (part*s* 1 *and 2* even for ships not intending to discharge ballast water). It should be completed before arrival in New Zealand and sent *by fax or e-mail* accompanying the Advance Notice of Arrival*, to MPI Clearance Service via the ship's agent in New Zealand.*

If the vessel intends to discharge ballast water within New Zealand waters, Part *Three* of the Ballast Water Declaration also needs to be completed *together with parts 1 and 2*.

Vessels needing to discharge ballast must record in their logs (ie SAF35, "Ballast Water Record Log") where the ballast water was loaded together with volumes, location and dates of all exchanges undertaken.

No ballast water may be discharged into New Zealand waters without the *written* permission of an Inspector.
Permission to discharge ballast water is granted when an inspector approves the discharge, signs *Part 1 of the Declaration* and sends this back to the ship.
Originals of all parts of the declaration must be retained onboard as MPI inspectors may ask to see them.

Safety exemption may be granted *where circumstances prevent the requirements of the standard being met. In such cases the operator or person in charge must:*

- *Give notice to MPI inspector, describing the circumstances*
- *Discharge ballast water only as directed by the inspector*

Web-site address for more info:
http://www.biosecurity.govt.nz/enter/ships/ballast

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **NE Atlantic and the Baltic Sea**

(for ships on intra North sea traffic see next section)
Introduction of **voluntary** ballast water exchange guidelines.

In anticipation of the entry into force of the International Maritime Organization's (IMO) Ballast Water Management Convention, voluntary guidelines have been introduced to reduce the risk of non-indigenous species invasion through ballast water.

The guidelines apply to ships entering the waters[1] of contracting parties to the OSPAR[2] and Helsinki[3] Conventions, which are also IMO member states[4]

To comply with the guidelines, vessels should:

1. have a Ballast Water Management Plan which complies with the Guidelines for Ballast Water Management and Development of Ballast Water Management Plans (G4) (IMO resolution MEPC.127(53))

2. keep a record of all ballast water operations (ie SAF35, "Ballast Water Record Log")

3. exchange all their ballast tanks at least 200 nautical miles from the nearest land in water at least 200 metres deep*

4. not release sediments during the cleaning of ballast tanks within 200 nautical miles of the coastline of the North East Atlantic or within the Baltic Sea.

* *This includes vessels transiting the Atlantic, or entering the areas of the OSPAR and Helsinki Conventions from routes passing the West African Coast – it does not apply to vessels entering the area from the Mediterranean Sea. If this has not been undertaken, vessels will be expected to exchange in waters at least 200 nautical miles from the nearest land in water at least 200 metres deep within the North East Atlantic. (If this is not possible for operational reasons then such exchange should be undertaken as far from the nearest land as possible, and in all cases in waters at least 50 nautical miles from the nearest land in waters of at least 200 metres depth). It should be noted that nowhere in the Baltic Sea fulfils these criteria.*

[1] *Waters' refers to: those parts of the Atlantic and Arctic Oceans and their dependent seas, including the Baltic Sea, which lie north of 36° north latitude and between 42° west longitude and 51° east longitude, but excluding the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° north latitude and the meridian of 5° 36' west longitude; and that part of the Atlantic Ocean north of 59° north latitude and between 44° west longitude and 42° west longitude.*

[2] *The Convention for the Protection of the Marine Environment of the North-East Atlantic*

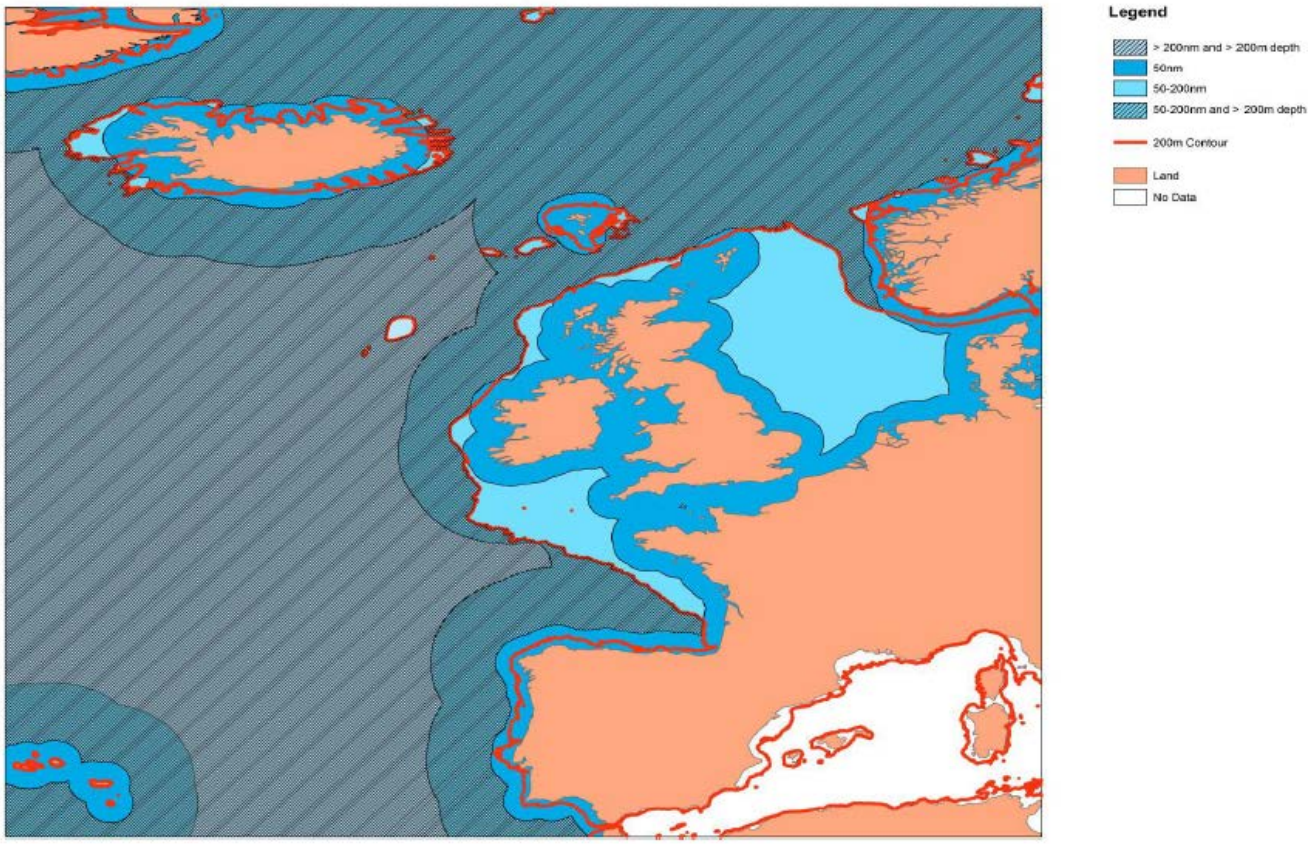
[3] *The Convention on the Protection of the Marine Environment of the Baltic Sea Area*

[4] *The contracting parties of the OSPAR and Helsinki Conventions, which are also IMO member states, are: Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, Luxembourg, Iceland, Ireland, The Netherlands, Norway, Poland, Portugal, The Russian Federation, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland*

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

More detailed information is available at: *http://www.ospar.org/documents?d=32872 and http://www.ospar.org/documents?d=32927*

Data re distances and depths of the NE Atlantic as per the map below:



- *North Sea (intra traffic)*

Ships on a voyage between 2 ports located on the North Sea (ie on a North Sea intra traffic) may conduct ballast water exchange in the designated ballast water exchange area in the North Sea.*

***NB:** For ships within Norwegian territorial waters and economic zone, the Norwegian national regulation applies and should refer to the next section.*

The North Sea area means the North Sea proper including seas therein with the boundary between:

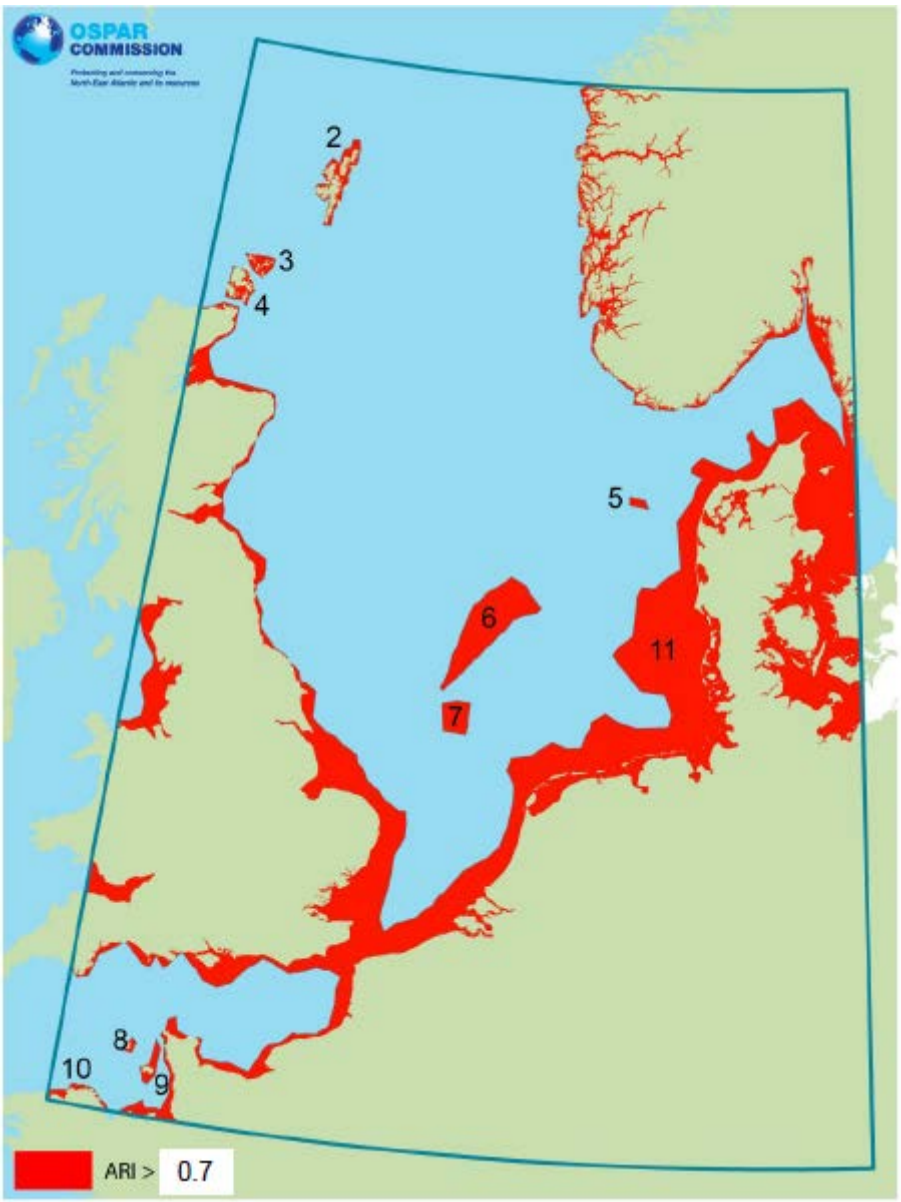
.1 the North Sea southwards of latitude 62° N and eastwards of longitude 40 W;

.2 the Skagerrak and part of the Kattegat, the southern limit of which is determined east of the Skaw by latitude 57°44' N; and

.3 the English Channel and its approaches eastwards of longitude 50 W and northwards of latitude 48°30' N.

*The designated ballast water exchange area in the North Sea is the area with a risk index of less than 0.75 ie. **the area which is not red,** corrected for the "Kompromisslinie" for the Traffic Separations Scheme Terschelling-German Bight, and corrected for the Norwegian EEZ.*

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION



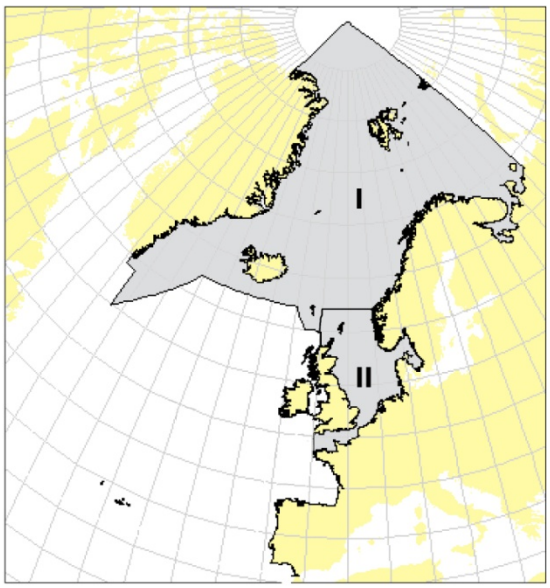
Full text of regulation is available Here

Coordinates of the high risk index areas (ie. the areas in red where BWE must be avoided) are provided in Annex 3 of the regulation.

- **Norway**

All ships, regardless of flag, when calling at Norwegian ports and when operating in Norwegian territorial waters including the territorial water around Svalbard and Jan Mayen and in the Norwegian economical zone, are required to exchange, treat or deliver to a shore reception facility all ballast water taken up **outside** the following areas: the Barents Sea and the Norwegian Seas, and the North Sea.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION



Ballast water taken outside the above areas is to be exchanged in waters at least 200 metres deep and 200 nautical miles from the nearest land. If this is not possible, ballast may be exchanged in waters 200 metres deep and not less than 50 nautical miles from land.

If a ship cannot exchange ballast in the specified depth of water or at the required distance from land, it must be exchanged in one of the designated exchange zones off the Norwegian coast, listed in point 1.2 of Annex 1 of the Regulations.

Ships are not required to deviate from or delay their intended voyage to meet this requirement. Nevertheless, ballast water discharge will not be allowed in harbours and domestic waters.

Ballast need not be exchanged if the master reasonably decides that doing so would threaten the safety or stability of the ship, its crew or its passengers because of adverse weather, ship design, equipment failure or any other extraordinary condition.

In isolated cases exemption from the requirements of this regulation can be accepted by the Norwegian Maritime Administration after application in writing.

Ballast which has been treated with a ballast water treatment system approved in accordance with IMO standards need not be exchanged.

Ships will be required to have on board a ballast water management plan approved in accordance with the IMO guidelines.
Ships should also have and maintain a ballast water record book (i.e. SAF35, “Ballast Water Record Log”).

For more information click Here

- **Panama**

The Canal Authorities have prohibited the discharge of ballast water in the Canal Area (which includes

the Balboa and Cristobal anchorages).

More information available at:
Sanitary Regulations, section 9:
http://www.pancanal.com/eng/legal/reglamentos/acuerdo23-eng.pdf

OP Notice Shipping 01-2016, item 26 click Here

- **Peru**

All ships arriving at Peruvian ports must exchange ballast water (that is intended to be discharged in Peruvian ports) at sea more than 12 n miles beyond the coast. The ballast water regulations require:

1. Submission of a "Ballast Water Notification" to the Maritime Authority (Harbourmaster) as per Annex A of the Resolution (available at the internet link below in Spanish).

2. The ship to maintain a special "Ballast Water Register book". (Ballast water management plan and records) i.e. per our SMS forms SAF35, 40, 41, 42, 43

3. A prohibition to discharge unchanged ballast water. Should the need to discharge unchanged ballast arise the ship must request authorization from the Harbourmaster and sail to a designated area to discharge/change ballast.

4. The obligation to change ballast water to be discharged at Peruvian ports beyond 12 miles from the Coast even if the Ballast Water has been taken at another Peruvian port.

5. Local authorities to establish sensitive / no discharge zones

Port State Control enforced by the Maritime Authority may:

- Ensure the existence of a "Ballast Water Management Plan"
- Ensure designation of key crewmen to put the Ballast Water Management Plan in practice
- Verify crew training or familiarization with the above plan.
- Take samples of ballast water to determine presence of harmful agents.

Ballast Water to be discharged at Peruvian Ports should be exchanged/taken as may be possible in the adjacent area beyond 12 miles from the coast.

The complete Peruvian Ballast Water resolution (in Spanish):
http://bit.ly/xED4yy

- **Portugal**

It is recommended that ocean Ballast Water exchange is carried out in accordance with the IMO guidelines prior to arrival. Ships destined for Lisbon must submit a survey on ballast water. This survey form must be sent to the agent upon or before arrival. A ballast sample may be requested by the Port Authority and Ballast tanks may be sounded by the Port Authority. On the River Tagus water,

ballast/de-ballast operations from and into the river should be reduced to those only necessary for the ship's safety.

- **ROPME**

(Regional Organisation for the Protection of the Marine Environment (ROPME), [Persian Gulf] which comprises the states of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates

Area affected: All ports within the ROPME area.

The ROPME Sea Area (RSA) is defined as extending between the following geographic latitudes and longitudes, respectively: 16°39'N, 53°3'30''E; 16°00'N, 53°25'E; 17°00'N, 56°30'E; 20°30'N, 60°00'E; 25°04'N, 61°25'E.

Requirements:

1. Vessels arriving from outside the ROPME Sea Area should undertake ballast water exchange en route in water over 200 nautical miles from the nearest land and in water at least 200 metres in depth.

2. If this is not possible for safety reasons, then vessels should be expected to make minor deviations to areas within the 200 nautical miles limit that can be identified as discharge areas, so long as such areas are more than 50 nautical miles from the nearest land in waters at least 200 metres deep.

3. If this is not achievable, then the ship shall provide the respective authority with the reason why she has not done so, and further ballast water management measures may be required, consistent with the Ballast Water Management Convention and other international laws

4. **The Ballast Water Management Plan should be approved in accordance with the IMO guidelines**

All ships passing the Strait of Hormuz will be required to complete the Regional Ballast Water Reporting Form (RBWRF). Ships might be inspected by the Port State Control Officers to ensure that these Regional requirements are fully implemented.

For more information click Here

More information expected to be made available at: www.ropme.com

- **Russia**

Russian Black Sea port regulations stipulate de-ballasting is permitted only if ballast water has been taken from/changed in the Black Sea.

St Petersburg Baltic *Sea* - Only ballast water taken from the Baltic or the North Sea can be discharged in port. Ballast water taken from other areas needs to be exchanged in the *area of north-east Atlantic, in the North sea outside 200 nm from the nearest land and at sea depth not less than 200 m and an*

entry about it shall be made in the ship's ballast record book. For more information see here

- **Singapore**

It has been reported that discharge of ballast water is prohibited within the Cruise Bay. All ships must complete de-ballast operations at anchorage or before berthing.

- **Turkey**

Reports indicate that local port requirements are being applied that occasionally completely ban the discharge of ballast water.
Ballast water reporting is required. It is recommended that local requirements are checked with the agents prior to arrival. Turkish port authorities are reported to carry out inspections and take water samples from ballast tanks

- **Ukraine**

Requirements for the protection of the Black Sea include:

1. On entry ballast water must be exchanged for Black Sea ballast water.
2. Record this exchange in the **oil record book** and the logbook.(ie SAF35, "Ballast Water Record Log")
3. Upon entering of Ukrainian territorial waters (12 miles) all overboard discharge valves (including ballast) are to be closed sealed and entry made into the relevant logbooks
4. Declare to the agent the amount of ballast water to be discharged at the berth
5. On berthing the ballast water will be sampled and tested before discharge is allowed

Even when a ship complies with the Black Sea ballast water exchange requirements the ballast water can fail the testing process (mainly due to iron being above the norm) which may result in fines against the master and the ship or instructions to leave the berth to de-ballast outside the 12 mile zone.

The inspection procedure as detailed above includes testing of Ballast Water samples for the following max levels:

- Oil 0.5 ppm
- Iron 0.5 ppm
- Suspended solids 0.75 ppm

[it was reported that as of the end of 2014 the Ukrainian Government has undertaken steps to change national legislation and bring it in line with international law, which will eventually lead the total control over ships' segregated ballast water to be abolished]

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **USA**

When reading the USA section always refer to the INDIVIDUAL UNITED STATES LEGISLATION and/ or the Great Lakes (North America) and Hudson River sections below as applicable.

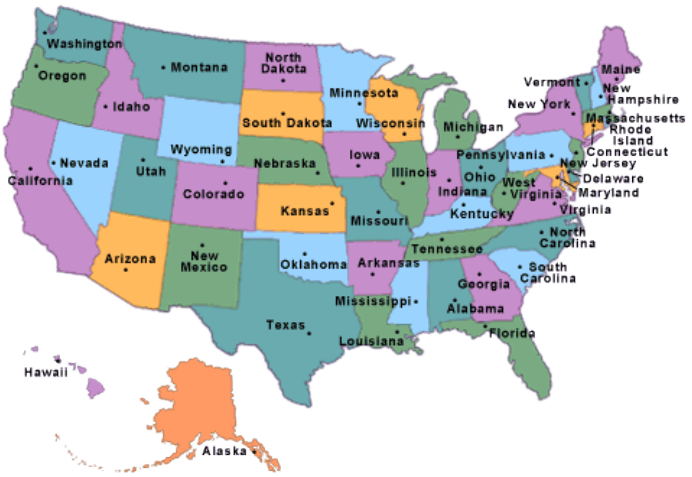
This section supplements and must be read in conjunction with the SMS FOM 338 (and form SAF77 WWCES) for the US Commercial Vessel General Discharge Permit (VGP) as part of the US National Pollution Discharge Elimination System (NPDES).

It summarizes the additional applicable requirements to the above referenced Federal Permit (outlined by the SMS FOM 338) as imposed by US Individual States and Indian Tribes. These additional requirements can be set as permitted by the US Clean Water ACT (CWA), part 401 and are also known as "401 certifications"

The most recent and complete text of the additional State and Tribal certification letters is available online at the US EPA (Environmental Protection Agency) EPA website:
www.epa.gov/npdes/vessels
and at: www.regulations.gov under docket number EPA-HQ-OW-2011-0141

They are also contained in Part 6 of the US VGP itself, the complete permit available at:
http://water.epa.gov/polwaste/npdes/vessels/upload/vgp_permit2013.pdf

These must be consulted as part of the voyage planning process onboard and complied with if the ship's track will pass through such States or Indian Tribes waters where there are additional requirements imposed on top of the US VGP as outlined in FOM338.



Company Policy is herewith emphasized again to all managed vessels for avoidance of any discharges in US State Waters (3 nm from the baselines, including all navigable waters of the Great Lakes under US jurisdiction). If a discharge is required there, an exemption may be granted by the Company on case by case basis in full compliance with the VGP and the referenced US States and Tribes 401 Certification Letters.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Summary of the USCG final rule regarding Ballast Water Management in waters of the United States (entry into force on 21 June 2012):

These regulations apply to all non-recreational vessels, U.S. and foreign, that are equipped with ballast tanks and operate in the waters of the United States, except:

- Seagoing vessels that operate in more than one COTP Zone, do not operate outside of the Exclusive Economic Zone (EEZ), and are less than or equal to 1,600 gross register tons or less than or equal to 3,000 gross tons, Non-seagoing vessels and vessels that take on and discharge ballast water exclusively in one COTP Zone are exempted from the ballast water management requirements only
- A foreign vessel that is merely traversing the territorial sea of the United States (unless bound for, entering or departing a U.S. port or navigating the internal waters of the U.S.)

Ballast water management requirements:

Vessels that operate in US waters (unless exempted as per above) must employ one of the following Ballast water management methods:

- Install and properly operate and maintain as per manufacturer's specifications a Ballast Water Management System (BWMS) that has been approved by the Coast Guard under 46 CFR part 162. Implementation schedule of approved BWMS is given below:

	Vessel's ballast water capacity	Date constructed	Vessel's compliance date
New vessels	All	On or after December 1, 2013	On delivery.
Existing vessels	Less than 1500 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2016.
	1500–5000 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2014.
	Greater than 5000 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2016.

Extension to above implementation schedule may be granted by USCG under certain conditions. *Letters for extension of compliance date are issued by the USCG at the request of the Company and must be kept in file onboard.*

Vessels employing a Coast Guard-approved ballast water management system (BWMS) must meet the following Ballast Water Discharge Standards (BWDS) by the date listed in above table:

(i) For organisms greater than or equal to 50 micrometers in minimum dimension: Discharge must include fewer than 10 organisms per cubic meter of ballast water.

(ii) For organisms less than 50 micrometers and greater than or equal to 10 micrometers: Discharge must include fewer than 10 organisms per milliliter (mL) of ballast water.

(iii) Indicator microorganisms must not exceed:

i. For toxicogenic *Vibrio cholerae* (serotypes O1 and O139): A concentration of less than 1 colony forming unit (cfu) per 100 mL.

ii. For *Escherichia coli:* a concentration of fewer than 250 cfu per 100 mL.
iii. For intestinal enterococci: A concentration of fewer than 100 cfu per 100 mL.

- Use only water from US Public water System (PWS), in which case vessels must have:

  (i) Previously cleaned the ballast tanks (including removing all residual sediments) and not subsequently introduced ambient water; or
  (ii) Never introduced ambient water to those tanks and supply lines

- Perform complete Ballast Water Exchange (BWE) in an area 200 nautical miles from any shore prior to discharging ballast water, unless the vessel is required to employ an approved BWMS per above schedule table

  N.B. BWE will not be an option once the implementation dates in the table are reached

- Use an alternate management system (AMS), subject to determination by USCG

  - AMS is a BWMS previously approved by a foreign state administration pursuant to the standards set in the IMO Ballast Water Management Convention (2004).
  - After receiving determination from USCG, AMS may be used as far as it was installed on the vessel prior to the date that the vessel is required to comply with the BWDS as per the above schedule table.
  - AMS may be employed for no longer than 5 years from the date they would otherwise be required to comply with the BWDS in accordance with the schedule above.
  - Equipment manufacturers when submitting request for AMS determination, must at the same time request type approval from USCG to ensure positive outcome of both AMS and USCG type approval and avoid replacement of their system after the 5 year window allowed for AMS

- Do not discharge ballast waters into US waters

- Discharge to a shore facility or to another vessel for subsequent treatment

Discharge of ballast water in extraordinary circumstances:

- The Coast Guard will allow discharge of ballast water in US waters (with the exception of the waters of the Great Lakes and Hudson River north of George Washington Bridge) from vessel, which cannot meet the BWM requirements as per above either because its voyage does not take it into waters 200 nm or greater from any shore for a sufficient length of time and the ship retains ballast water onboard, or because the master has identified safety concerns, in which case only the operationally necessary amount of ballast water to ensure safety/ stability of the vessel for cargo operations is to be discharged

- The Coast Guard will **not** allow such extraordinary discharge for a vessel, which is required to be fitted with a type approved BWMS per above implementation schedule

- If the installed BWMS stops operating properly during a voyage, or the vessel's BWM method is unexpectedly unavailable (which must be reported asap to the nearest COTP or District Commander), the Coast Guard will normally allow the vessel to employ one of the other BWM methods listed above. If the master of the vessels determines that other methods cannot be

employed for safety or voyage concerns, the Coast Guard will normally allow the vessel to discharge in US waters (with the exception of the waters of the Grate Lakes and Hudson River North of the George Washington Bridge). In such cases only the operationally minimal amount of ballast water is to be discharged to ensure safety/ stability of the vessel for cargo operations.

Additional requirements – nonindigenous species (NIS) reduction practices:

- All vessels are required to implement and maintain the well established NIS reduction (IMO) practices and maintain a Ballast Water Management (BWM) plan that has been developed specifically for the vessel which should additionally include:
  - detailed fouling maintenance and sediment removal procedures*

    * the Company managed vessels are required to develop and maintain a stand-alone Biofouling Management Plant (form saf107), which is to be kept together with the BWMP
  - procedures for coordinating the shipboard BWM strategy with Coast Guard authorities
  - detailed reporting requirements and procedures for ports and places in the United States where the vessel may visit
- When discharging ballast water to a reception facility in the United States, discharge only to reception facilities that have an NPDES permit to discharge ballast water.

Reporting requirements:

- The reporting requirements apply to all vessels (except those exempted – see the first paragraph of the final rule), subject to these regulations bound for ports or places of the United States regardless of whether the vessel operated outside of the EEZ as follows:
- The master, owner, operator, agent, or person in charge of a vessel subject to these regulations must provide the information required by 33 CFR 151.2070 in electronic or written form to the Commandant, U.S. Coast Guard or the appropriate Captain of the Port (COTP). The Ballast Water Reporting Form (Office of Management and Budget form Control No. 1625–0069) and the instructions for completing it are available on the National Ballast Information Clearinghouse's Web site at *http://invasions.si.edu/nbic/submit.html* . For vessel bound for US ports or places other than the Great Lakes and Hudson River North of the George Washington Bridge, information must be submitted in the following way:
- *Submit a Ballast Water Management Report (BWMR) to the NBIC no later than 6 hours after arrival at the port or place of destination, or prior to departure from that port or place of destination, whichever is earlier. The Ballast Water Management Reporting Form is available in two formats*:

  (i) *Web App BWMR form*

  (ii) *PDF BWMR form* If the information submitted in accordance with this section changes, the master, owner, operator, agent, or person in charge of the vessel must submit an amended report before the vessel departs the waters of the United States *or not later than 24 hours after departure from the port or place, whichever is earlier*.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

N.B. The reporting requirements for vessels from outside the EEZ bound for the Great Lakes and Hudson River North of the George Washington Bridge are contained in the relevant designated section (below).

Recordkeeping requirements:

- All vessels (except those exempted *under 33 CFR 151.2015*) must ensure maintenance of *signed* written *or digital* records (for at least two years) that include the information required per 33 CFR 151.2070. The records must be provided upon request to the COTP.

Penalties:

- A person who violates these regulations is liable for a civil penalty not to exceed $35,000. Each day of a continuing violation constitutes a separate violation. A vessel operated in violation of the regulations is liable in rem for any civil penalty assessed under this subpart for that violation.
- A person who knowingly violates the regulations of this subpart is guilty of a class C felony.

N.B. The federal ballast water reports to NBIC or USCG does not relieve the vessel from her state specific reports if these are required.

Great Lakes (North America) and Hudson River

- Applicability:

  Applies to all non-recreational vessels, that, after operating on the waters beyond the Exclusive Economic Zone during any part of its voyage, enter the Snell Lock at Massena, New York, or navigates north of the George Washington Bridge on the Hudson River, regardless of other port calls in the United States or Canada during that voyage.

- Restriction of operation:

  No vessel subject to the requirements of this subpart may be operated in the Great Lakes or the Hudson River, north of the George Washington Bridge, unless the master of the vessel has certified (as per the compliance monitoring section below), that the requirements of this subpart have been met.

- Ballast water management requirements:

  Acceptable methods are as follows:

  - Carry out an exchange of ballast water on the waters beyond the Exclusive Economic Zone (EEZ), from an area more than 200 nautical miles from any shore, and in waters more than 2,000 meters deep, such that, at the conclusion of the exchange, any tank from which ballast water will be discharged contains water with a minimum salinity level of 30 parts per thousand, *unless the vessel is required to employ an approved ballast water management system (BWMS) per the schedule in the US final rule section above)*
    N.B. BWE will not be an option once the implementation dates in the table are reached
  - An alternative management system (AMS) per those described in the US final rule section)
  - Retain the vessel's ballast water on board the vessel.

- Install and operate a BWMS that has been approved by the Coast Guard
- Use only water from a U.S. public water system (PWS) (requirements and conditions for use of PWS are similar to those described in the US final rule section)
- Separate discharge of sediments from ballast tanks or holds is not permitted. Sediments are to be delivered to shore reception facilities as per local port regulations

- Ballast water discharge standards:

  Same as the standards described in the US final rule section.

- Ballast water management alternatives in extraordinary circumstances:

  - As long as ballast water exchange (BWE) remains an option under the BWMS implementation schedule, the master of any vessel who uses BWE and, due to weather, equipment failure, or other extraordinary conditions, is unable to effect a BWE before entering the Exclusive Economic Zone, and intends to discharge ballast water into the waters of the United States, must request permission from the Captain of the Port (COTP) to exchange the vessel's ballast water within an area agreed to by the COTP

  - Once BWE is no longer an option under the BWMS implementation schedule and if the BWMS required by this subpart stops operating properly during a voyage or the vessel's BWM method is unexpectedly unavailable, the master or person in charge of the vessel must ensure that the problem is reported to the COTP as soon as practicable.

- The St. Lawrence Seaway Corporations requires vessels transiting the Seaway to also comply with two other standards of ballast water management that go beyond the requirements of the U.S. Coast Guard (see item 30 of below document).
  http://www.greatlakes-seaway.com/en/pdf/web_practices_and_procedures.pdf

- Reporting requirements:

  The Ballast Water Reporting Form (Office of Management and Budget form Control No. 1625–0069) and the instructions for completing it are available on the National Ballast Information Clearinghouse's Web site at *http://invasions.si.edu/nbic/submit.html* . The information must be submitted:

  (1) *Any vessel bound for the Great Lakes from outside the EEZ (i.e., transiting the Saint Lawrence Seaway) must be aware of Transport Canada, US Coast Guard and Seaway Ballast Water Regulations. To meet US Coast Guard regulations, submit a BWMR at least 24 hours before the vessel arrives in Montreal, Quebec. Non-US/non-Canadian flag vessels may complete the St. Lawrence Seaway ballast water reporting form ("Pre-entry Information from Foreign Flagged Vessels Form") and submit it in accordance with the applicable Seaway notice as an alternative to this requirement.*

  (2) *Any vessel bound for the Hudson River north of the George Washington Bridge entering from outside the EEZ: Submit the BWMR to NBIC at least 24 hours before the vessel enters New York, NY.*

  More information is available at: http://www.greatlakes-seaway.com/en/environment/ballast-water/index.html

VSL BULLETIN NO. 09

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

N.B. The federal ballast water reports to NBIC or USCG does not relieve the vessel from her state specific reports if these are required.

Summary:

The 33 CFR subparts C and D containing the ballast regulations can be accessed at:
http://www.ecfr.gov/

The 2013 Vessel General Permit (VGP) by the US Environmental Protection Agency (EPA) which lists the US Federal requirements for Ballast Water Management is available online at:
http://www.epa.gov/npdes/vessels

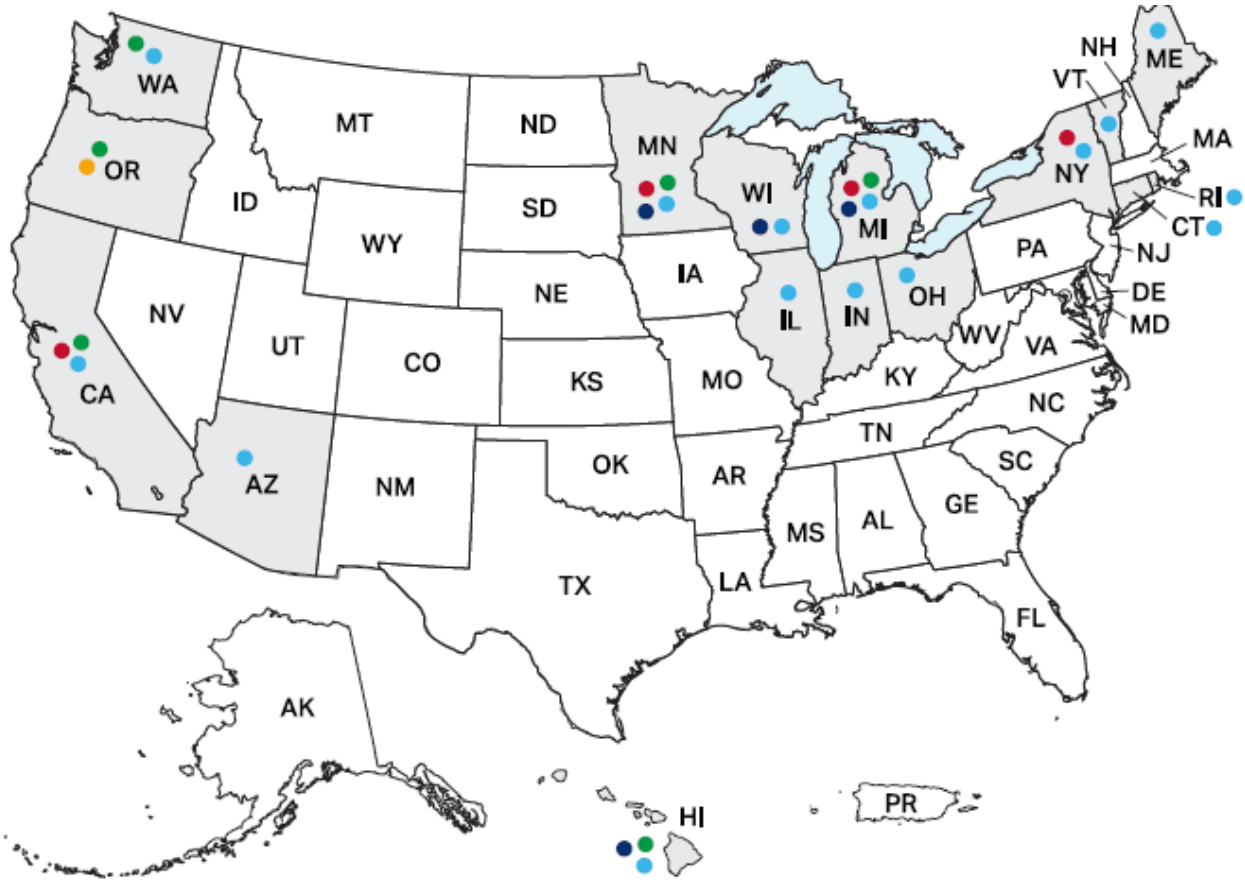
and
http://water.epa.gov/polwaste/npdes/vessels/upload/vgp_permit2013.pdf
and is summarized in the SMS FOM 338.

More information can be obtained from USCG web site (Environmental section)

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

INDIVIDUAL UNITED STATES LEGISLATION:

States have imposed individual requirements either through specific state regulations or Clean Water Act (CWA) Section 401 Certifications for the 2013 VGP. The below Figure identifies states with ballast water requirements **in addition to the federal requirements.**



- **Arizona**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), Arizona has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- If ballast water receives chlorination treatment prior to discharge, the discharge must not exceed a maximum level of 19 µg/L of total residual chlorine

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- **California**

Interim *and final* Performance Standards for Ballast Water Discharges:

- Applicability and Implementation schedule of *both the California interim and final ballast water discharge performance* standard requiring ballast water treatment (system) *has been delayed. The new implementation schedule for the interim standards is as follows*:
  - *Newly built vessels – First arrival on or after January 1, 2020;*
  - *Existing vessels – First dry docking on or after January 1, 2020;*

The implementation date for the final performance standards has been delayed until January 1, 2030.

Reporting discharge of treated ballast in California *(whenever ship uses BWTS)*

If vessels opt to use shipboard ballast water treatment systems to comply with California's performance standards, vessels must submit a Ballast Water Treatment Supplemental Reporting Form (Supplemental), *in addition to the Ballast Water Reporting form,* upon departure from each port or place of call in California if ballast water was treated and discharged into California waters. In addition, vessel*s* that have ballast water treatment systems and discharge treated ballast into California waters must annually submit a Ballast Water Treatment Technology Annual Reporting Form (Annual). Both Supplemental and Annual reporting forms can be obtained from the Ballast Water Treatment Technology Reporting Forms section available Here and should be submitted to:

Email: BWForm@slc.ca.gov , or Fax: 562-499-6444

Prior to the implementation of the *discharge performance* standard, the following Ballast water management options are required:

A. Vessels arriving from outside the Pacific Coast Region:

1) Retain ballast water (no discharge)

2) Exchange ballast water in mid-ocean waters (waters more than 200 nm from land at least 2,000 m deep):
   - Empty refill method: 100% volumetric replacement.
   - Flow through method: 300% volumetric replacement.

3) Discharge ballast water at the same location where the ballast water originated. It must be demonstrated that the water was not mixed with ballast water taken on in an area other than mid-ocean waters.
   - Same location = Within 1 nautical mile (6,000 ft) of the berth or within the recognized breakwater of a California port or place at which the ballast water was loaded.

4) Use an alternative, environmentally sound, Commission or US Coast Guard-approved method of treatment

5) Discharge to an approved reception facility (none currently exist).

6) Under extraordinary circumstances, perform a ballast water exchange within an area agreed to in advance by the Commission.

B. Vessels arriving from within the Pacific Coast Region, with ballast water from the Pacific Coast Region

1) Retain ballast water (no discharge)

2) Exchange ballast water in near-coastal waters (waters more than 50 nm from land at least 200 m deep) of the Pacific Coast Region:
   - Empty refill method: 100% volumetric replacement
   - Flow through method: 300% volumetric replacement

3) Discharge ballast water at the same port or place where the ballast water originated. *(this option requires prior approval by California SLC)*

4) Use an alternative, environmentally sound, Commission or US Coast Guard-approved method of treatment

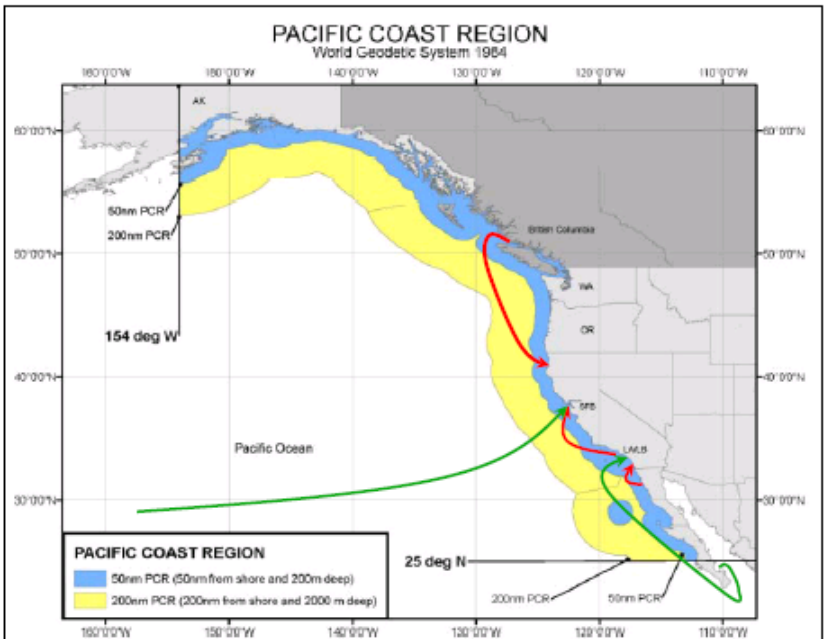
5) Discharge to an approved reception facility (none currently exist).

6) Under extraordinary circumstances, perform a ballast water exchange within an area agreed to in advance by the Commission.

Ballast water originating from an EEZ outside the Pacific Coast Region must be managed the same as vessels arriving from outside the Pacific Coast Region, regardless of the vessel's last port of call

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

Pacific Coast Region (PCR) Definition: All coastal waters (within 200 nm of land) on the Pacific Coast of North America east of 154 degrees W longitude and north of 25 degrees N latitude (Public Resources Code, Section 71200(k)). Excludes the Gulf of California.



→ Examples of vessels arriving to California waters from outside the Pacific Coast Region

→ Examples of vessels arriving to California waters from within the Pacific Coast Region

More details on the above are available Here

California Ballast Water Reporting:

- Ballast Water Reporting Form

California requires the U.S. Coast Guard Ballast Water Reporting Form (OMB Control Number 1625-0069), available in section Ballast water Reporting Form of the "Marine Invasive Species Program – Compliance and Reporting Documents" website (click Here) to be submitted ***24 hours in advance of arrival at a California port.***

Fax: 562-499-6444 OR Email: BWForm@slc.ca.gov

NB:

When submitting the Ballast Water Management Report to the California State Lands Commission:

- *DO NOT USE the BWMR Web App – Vessels that use the BWMR and the Web App to file with NBIC will still need to file a separate form by email or fax with the California State Lands Commission.*

- *EMAILING the FORM to CALIFORNIA – For the BWMR to be received in California via email, you must save the BWMR as a separate PDF and attach in an email to bwform@slc.ca.gov. The PDF version of the BWMR has buttons for "email" and "online submittal" that will not work to submit your form to the California State Lands Commission.*

- Hull Husbandry Reporting Form (HHRF):

Beginning 01 January 2015 vessels that visit a California port are required to submit HHRF (while the vessel is in California) once per calendar year in written or electronic format to the State Land Commission (SLC). Penalties for non compliance can amount to 27500$ per violation and per day.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

The HHRF is available online at:

http://*http://www.slc.ca.gov/Programs/MISP_Reporting.html*

California SLC, in coordination with the United States Coast Guard, is required take samples of ballast water, sediment, and biofouling from and inspect at least 25% of the arriving vessels

More information available at:
http://www.slc.ca.gov/Programs/MISP_Reporting.html
http://www.slc.ca.gov/Programs/MISP.html

In addition to the above, as part of its certification of the 2013 Vessel General Permit VGP (see SMS FOM 338), California has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

If the ballast water receives chlorination treatment, the discharge to the ocean shall not exceed a maximum level of 60 micrograms per liter (µg/L) of total residual chlorine, and the discharge to inland waters, enclosed bays, and freshwaters shall not exceed a maximum level of 19 µg/L of total residual chlorine.

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP is available Here

- **Connecticut**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), Connecticut has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- All vessels entering Connecticut waters must maintain the ability to measure salinity levels in each ballast water tank onboard the vessel so that salinities between 20 and 25 parts per thousand ("ppt") can be ensured for ballast exchange in marine waters and salinities between 0 and 5 ppt can be ensured for ballast exchange in fresh waters.

- **Hawaii**

- Vessels that carry ballast water are to follow the state administrative rules for ballast water “Non-Indigenous Aquatic Species” of the Department of Land and Natural Resources (HAR 13-76).

- Qualifying vessels are all that carry ballast water into Hawaii state marine waters after operating outside the EEZ. For them ballast water exchange is required in mid-ocean waters (at least 200 nm from any coast).

- All qualifying vessel, except those on innocent passage, shall fill in the USCG Ballast Water report and send it additionally to as required by federal law to either of the contacts below, not later

than 24 hours prior to arrival into state marine waters:

via fax to +1 808-587-0115 or e- mail to : dlnr.ar.ballast.report@hawaii.gov

- Qualifying vessels are required to have Ballast Water Management Plans. Exemptions from the exchange requirements may be granted via permits.

- The rules can be viewed at: http://dlnr.hawaii.gov/ais/ballastwaterbiofouling/ballastwaterdetails/

  or at: http://dlnr.hawaii.gov/dar/files/2014/05/ch76.pdf

o **Illinois**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), Illinois has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Vessel using BWTS with chlorine (in any of its forms) shall not exceed the acute WQ standards of 0.019 mg/l or the chronic WQ standard 0.011 mg/l for TRC. To demonstrate the WQS, the discharge of TRC shall not exceed the laboratory quantification level of 0.05 mg/l mg test methods equivalent in accuracy to amperometric titration. The usage of other biocides shall not cause a violation of applicable water quality standards and shall not be discharged in concentrations considered to be toxic or harmful to aquatic life

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0876

o **Indiana**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Oceangoing vessels eligible for coverage under the EPA VGP that enter the great Lakes-St. Lawrence Seaway system and are transiting from beyond the 200- nautical-mile Exclusive Economic Zone (EEZ) shall perform open ocean ballast water exchange or saltwater flushing before entering the Great Lakes-St. Lawrence Seaway system in order to ensure water quality standards are met.

- Oceangoing Vessels covered by the EPA VGP shall comply with the following ballast water discharge requirements:

  a. For vessels constructed prior to December 1, 2013, and meeting the applicability criteria in the federal NPDES permit, treatment shall be installed and operational to meet the performance standards for organisms included in EPA VGP by the vessel's first scheduled drydocking after January 1, 2016.

b. For vessels constructed after December 1, 2013, and meeting the applicability criteria in the federal NPDES permit, treatment shall be installed and operational to meet the performance standards for organisms included in EPA VGP prior to commencement of vessel operation in Indiana State waters.

- Any vessel discharging ballast water employing ballast water treatment systems using chlorine, shall not exceed a maximum total residual chlorine limit of 0.02 mg/l. The usage of other biocides shall not cause a violation of applicable water quality standards, and shall not be discharged in concentrations considered to be toxic or harmful to aquatic life

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0872

o **Maine**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Vessels whose voyage originates outside the EEZ and enters Maine waters shall conduct BWE or flushing beyond the EEZ, at least 200 nautical miles from any shore, and in water at least 2,000 meters in depth, resulting in salinity levels of at least 30 ppt. These requirements remain in effect regardless of whether the vessel is equipped with a BWTS.

- All vessels entering Maine waters must maintain the ability to measure salinity levels in each tank on board the vessel so that salinities of at least 30 ppt can be ensured.

- If a vessel is unable to conduct ballast water exchange or flushing due to serious safety concerns (threatening safety, stability, crew or passengers), the operator of any vessel with ballast on board shall take reasonable measures to avoid discharge of organisms in ballast water.

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0836

o **Michigan**

- Legislation requires all vessels to report annually to the Michigan Department of Environmental Quality (MDEQ) confirming compliance with the proscribed practices. Effective 1 January 2007, State legislation requires all ocean going vessels (that operate on the Great Lakes or the St. Lawrence waterway after operating in waters outside them) to obtain a permit from MDEQ. Application available at: http://1.usa.gov/NrHdnv

- A discharge permit will be issued only if environmentally-sound technology and methods are utilized for the discharge of ballast water, other waste or waste effluent. Recommended Ballast Water Management Practices include: mid ocean exchange, periodic sediment removal, the IMO guidance for uptake of ballast etc.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- Ocean-going ships discharging ballast water in Michigan may have treatment systems onboard. The Michigan Department of Environmental Quality has approved four treatments for the general permit, including sodium, hypochlorite, chlorine dioxide, ultraviolet light, and de-oxygenation. More information at: http://1.usa.gov/MksgcM

- The Permit once issued is valid for 5 years. The Permit fee is 75$.
  On the link above information for ballast water requirements for the Great lakes is also available.

- Reporting form required 24 hrs in advance is available at:
  http://1.usa.gov/MnJorT
  and can be submitted online at: http://www.deq.state.mi.us/eforms/ballastwaterreporting.html

More information at: http://1.usa.gov/Nkh6TN

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Oceangoing vessels covered by the USEPA's VGP are prohibited from discharging ballast water in Michigan waters, unless the vessel has obtained a Certificate of Coverage under the Ballast Water Control General Permit (Permit No. MIG140000) or an Individual Permit from the MDEQ and is in full compliance with the discharge limitations, monitoring requirements, and other conditions set forth in that General Permit or Individual Permit.

- Ballast Water Exchange and Saltwater Flushing:

  . 1 Vessels whose voyages originate from outside the EEZ and enter Michigan waters with ballast on board, shall conduct BWE at least 200 nautical miles (nm) from any shore and in waters beyond the EEZ. Such vessels that carry only residual amounts of ballast water and/or sediments shall conduct saltwater flushing of their ballast tanks, at least 200 nm from any shore and in waters beyond the EEZ.

  Ballast water exchange is defined as at least 1 empty and refill cycle of each ballast tank that contains ballast water, resulting in a salinity level of at least 30 parts per thousand (ppt). If the master of the vessel determines that such exchange is impracticable, a sufficient number of flow-through exchanges of ballast water may be conducted to achieve replacement of at least 95 percent of ballast water in ballast tanks of the vessel, resulting in a salinity level of at least 30 ppt.

  Saltwater flushing is defined as the addition of ocean water to ballast water tanks, the mixing of the flushwater with residual water and sediment through the motion of the vessel, and the discharge of the mixed water, such that the resulting residual water has a salinity level of at least 30 ppt.

  . 2 All vessels entering Michigan waters must maintain the ability to measure salinity levels in each ballast tank on board the vessel so that salinities of at least 30 ppt can be ensured.

  . 3 There is a Safety exemption to the above and in such a case if a vessel is unable to conduct ballast water exchange or flushing due to serious safety concerns (i.e. the safety, stability of the ship, its crew or pax are threatened), the operator of a vessel shall take reasonable

measures to avoid discharge of organisms in ballast water and shall inform the MDEQ in writing of the measures taken.

- Any vessel using a BWTS by 31 December 2014, consistent with the technologies identified in Michigan's Ballast Water Control General Permit (Permit No. MIG140000) or an alternative technology approved by the MDEQ, will not be required to meet any future numeric water quality-based effluent limits (WQBEL) for living organisms that may be set forth in a subsequent CWA Section 401 certification until the functional life of that BWTS has expired or the life of the vessel has expired, whichever is earlier. These vessels must continue BWE and saltwater flushing as described in above paragraph unless it is demonstrated to the MDEQ that numeric WQBELs adopted after the date of this certification for living organisms are met.

- Live Organism Monitoring: Any vessel, whose voyages originate from outside the EEZ that discharges ballast water to Michigan waters, shall monitor ballast water discharged from their vessel at least once each year for living organisms greater than 50 µm in minimum dimension, and living organisms equal to or less than 50 µm in minimum dimension and equal to or greater than 10 µm in minimum dimension; and submit a report summarizing the discharge monitoring results collected for the above live organism size categories to the MDEQ no later than 31 December of each year. The ballast water discharge samples shall be collected and analyzed consistent with protocols established by the MDEQ. If the MDEQ fails to establish protocols, then the requirements set forth in this condition will be waived.

- The contact point for consultation, submittals, and approvals as referred to in this Certification is:
  Chief, Water Resources Division
  MDEQ
  P.O Box 30458
  Lansing, Michigan 48909-7958 Phone: 517-335-4176

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0857

o **Minnesota**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Obtaining coverage under the 2013 VGP does not release any person from the duty to obtain and comply with the existing Minnesota ballast water general permit MNG300000, or subsequent modifications of that permit issued by the MPCA and required by state law. Vessels covered by the EPA's 2013 VGP must obtain any permits required by the state of Minnesota for vessel discharges and comply with all requirements in the applicable permit at the time of compliance review.

- Exchange and flushing for voyages originating beyond the Exclusive Economic Zone (EEZ).

  . 1 Any vessel whose voyage originates outside the EEZ and enters Minnesota waters shall not discharge ballast unless the following conditions are met: the vessel has conducted BWE or flushing beyond the EEZ, at least 200 nautical miles from any shore, and in water at least

2,000 meters in depth, while in oceanic waters, resulting in a salinity level of at least 30 parts per thousand (ppt) prior to the time the vessel enters Minnesota waters. This requirement remains in effect regardless of whether the vessel is equipped with a BWTS. This requirement is in addition to treatment requirements.

. 2 All vessels entering Minnesota waters must maintain the ability to measure salinity levels in each tank on board the vessel so that salinities of at least 30 ppt can be ensured prior to discharge in Minnesota waters.

. 3 All vessels entering the Great Lakes from outside the EEZ and carrying only residual amounts of ballast water and/or sediment must conduct salt water flushing as per the requirements of the July 1, 2012 edition of the 51. Lawrence Seaway regulations, 33 CFR §401.30(f).

. 4 There is a Safety exemption to the above and in such a case if a vessel is unable to conduct ballast water exchange or flushing due to serious safety concerns (i.e. the safety, stability of the ship, its crew or pax are threatened), the operator of such vessel shall inform the MPCA and DNR prior to discharging ballast in state waters to allow a determination of whether the discharge of the ballast presents a "high risk" as described below. No ballast shall be discharged that does not meet the conditions in this paragraph if the MPCA determines that the ballast is "high risk" and that additional treatment is necessary to protect aquatic resources.

- Emergency Control of Ballast Water discharge:

. 1 The Minnesota Pollution Control Agency (MPCA), in coordination with the DNR, may prohibit discharge, require a discharge to occur in a particular area, or require emergency treatment of any "high risk" ballast water proposed to be discharged in Minnesota waters.

. 2 If relocation of a high risk ballast discharge is required, proper authorities will identify alternative locations for the discharge of the high risk ballast water. As an alternative to discharging high-risk ballast water, MPCA may authorize the use of BWTS identified as promising technology by EPA, USCG, neighboring states or a US ballast water testing research facility (e.g., Golden Bear, Great Ships Initiative and Maritime Environmental Resource Center).

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0875

o **New York**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Any vessel covered under the VGP whose voyage originates outside the exclusive economic zone and enters New York waters shall conduct ballast water exchange or flushing beyond the EEZ, at least 200 nautical miles from any shore, and in water at least 2,000 meters in depth, resulting in a salinity level of at least 30 parts per thousand (ppt). These requirements remain in effect regardless of whether the vessel is equipped with a ballast water treatment system.

SUMMARY OF REGIONAL BALLAST WATER LEGISLATION

- All vessels entering New York waters must maintain the ability to measure salinity levels in each tank onboard the vessel so that salinities of at least 30 ppt can be ensured,

- There is a Safety exemption to the above and in such a case any vessel with ballast on board shall take reasonable measures to avoid discharge of organisms in ballast water and shall inform the Department in writing of the measures taken.

- For vessels entering the Great Lakes from outside the EEZ and carrying only residual amounts of ballast water and/or sediment, the flushing requirements are equivalent to those set forth in the May 4, 2012 edition of the Seaway Regulations and Rules, 33 CFR 401.30(f).

- Live Organism Monitoring: All vessels with a BWTS must sample and analyze the ballast water discharge at least once a year (provided appropriate facilities are available) using the California shipboard sampling protocol, or a compliance monitoring protocol developed by the USCG, whichever is most advanced and available. This monitoring shall include sampling for >50 µm and for 10-50 µm organisms. The monitoring results shall be submitted to EPA and the Department on an annual basis. Such live organism monitoring shall include the collection of representative discharge samples and the testing (counting) of live organisms in such samples by qualified personnel in accordance with standard and/or best available sampling and analytical methods.

- The Department point of contact for consultation, submittals and approvals is:
  Mr. Donald E. Tuxill, P .E.
  New York State Department of Environmental Conservation
  Division of Water, 4th Floor
  625 Broadway
  Albany, New York 12233-3505
  (518)402-8168

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0837

o **Ohio**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Vessels that operate outside the U.S. Exclusive Economic Zone (EEZ) and more than 200 nautical miles from shore, and then enter the Great Lakes via the St. Lawrence Seaway System must conduct salt water flushing of ballast tanks. This condition applies both before and after treatment system deadlines in the VGP.

- Vessels are prohibited from discharging ballast water sediment in Ohio waters.

- Ohio EPA believes that the IMO certification combined with ballast water flushing and exchange is sufficient demonstration that these treatment standards are "practical and possible" methods for

meeting ballast water treatment standards for ocean-going ships.

- If the federal government adopts treatment standards more stringent than IMO, then those standards shall replace the above treatment standards for new treatment systems installed after the date those federal standards go into effect.

- It is likely that discharges of ballasted sea water will not meet the toxicity narrative water quality standard if discharged in the relatively shallow water of Ohio's Lake Erie ports, due to the dissolved solids levels in sea water. Discharges in the open waters of the Lake minimize the risk of toxicity, and will allow the standard to be met. In order to prevent toxicity to ambient organisms or rapidly lethal conditions, discharges of ballasted sea water within the breakwalls of Ohio's Lake Erie Ports is prohibited.

- For BWTS using chlorine, discharges must meet a maximum chlorine limit of 38 µg/l if the discharge lasts for more than 160 minutes/day; the limit is 200 µg/l if the discharge is 160 minutes/day or less. The inside-mixing-zone maximum criterion for short-term exposures to chlorine is 200 µg/l; the otherwise applicable criterion is 38 µg/l. The water quality criteria for bromine are therefore set at1/4 of the chlorine standard. Discharges of other biocides must meet the narrative water quality standard for toxicity noted above. Other biocides used in ballast water treatment must meet Ohio's narrative toxicity water quality standard. To meet the 'no rapidly lethal conditions' narrative, discharges of all biocides must meet inside-mixing-zone water quality standards (Final Acute Values). The discharge of organic quaternary ammonium compounds is prohibited.

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0874

o **Oregon**

- Specific conditions permitting ballast water discharge. A vessel may discharge ballast waters in state waters if:
  1. The vessel has conducted an open ocean exchange (at least 200 nautical miles (nm) from shore and in waters at least 2000 meters deep); or
  2. The discharged ballast was solely sourced within 'common waters' of the state, identified as the West Coast region of North America between 40° N and 50°N; or
  3. A coastal exchange of ballast water has been performed (at least 50 nm from shore and in waters at least 200 meters deep) for vessels on coastal voyages travelling to Oregon from a North American Pacific coastal port south of 40° N or north of 50°N; or
  4. The discharged ballast was treated in a manner authorized by Oregon Administrative Rule 340-143-0050; or
  5. Conditions are such that conducting an exchange would be unsafe or infeasible due to adverse weather, vessel design limitations or equipment failure. In these instances, the vessel must clearly declare a safety exemption on its ballast water reporting form and may be subject to operational delays and/or alternative management requirements following DEQ review (prior to discharging safety exempt ballast water, vessel operator/owner must receive DEQ authorization.

- State regulations on ballast water management require that vessels submit ballast water management reports to DEQ at least 24 hours prior to entry into the state waters:

In addition to federal requirements for submission to the National Ballast Information Clearinghouse, report forms must also be submitted at least 24 hours prior to arrival in the State of Oregon. Reports (as email attachments .doc, .pdf, .xfdf, .xls, .tiff, or .jpg formats only) may be submitted (via marine.room@pdxmex.com or ballast.water@deq.state.or.us or via fax 503-229-6954) using the Office of Management and Budget (OMB) Form Control No. 1625-0069 at: http://www.deq.state.or.us/lq/pubs/forms/cu/BallastWaterReportingForm.pdf

In the event a vessel's actual ballast practices differ from those projected on the report, an amended report must be submitted prior to the vessel's departure

Beginning January 2012, regulated vessels entering into Oregon waters will be assessed a $70 vessel arrival fee in accordance with Senate Bill 81 (passed in 2011). Fee collection and disbursement to DEQ is currently handled via contract with Portland Merchants Exchange: http://www.pdxmex.com/media/MEX/ServicesandRates/2012ServicesAndRates.pdf (see last section "Other fees")

For more information:
Contact DEQ Ballast Water Program Manager, Portland, by phone at (503) 229-6865 or toll-free in Oregon at 1-800-452-4011, x6865; by e-mail at hooff.rian@deq.state.or.us ; or from the program's DEQ Web page at:
www.deq.state.or.us/lq/cu/emergency/ballast.htm

o **Rhode Island**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Vessels whose voyage originates outside the EEZ and enters Rhode Island waters shall conduct BWE or flushing beyond the EEZ, at least 200 nautical miles from any shore, and in water at least 2,000 meters in depth. These requirements remain in effect regardless of whether the vessel is equipped with a BWTS.

- There is a Safety exemption to the above and in such a case if a vessel is unable to conduct ballast water exchange or flushing due to serious safety concerns (i.e. safety, stability of the vessel, its crew or pax are threatened), the operator of any vessel with ballast on board shall take reasonable measures to avoid discharge of organisms in ballast water and shall inform the Department in writing of the measures taken.

- Vessels are urged to voluntarily install currently available technologies that go beyond the IMO D-2 standard (e.g., systems that have demonstrated the ability to meet and exceed a 10x IMO level of treatment) as a means of gaining useful experience while contributing to the advancement of treatment technology.

- All vessels covered under the VGP and operating in Rhode Island waters, after a BWTS is installed, must sample and analyze the ballast water discharge at least once a year (provided appropriate

facilities are available), using the California shipboard sampling protocol, or a compliance monitoring protocol developed by the USCG, whichever is most advanced and available. The monitoring results shall be submitted to EPA and the department on an annual basis. Such live organism monitoring shall include the collection of representative discharge samples and the testing (counting) of live organisms in such samples by qualified personnel in accordance with standard and/or best available sampling and analytical methods. In addition to EPA submissions, the applicant must submit all sampling results to the Office of Water Resources, RI Department of Environmental Management.

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0839

- **Washington State**

- All vessels intending to discharge ballast are required to conduct an open ocean exchange:
  1. Vessels on coastal voyages are required to conduct an exchange at least 50 nautical miles offshore in waters at least 200 m deep.
  2. Vessels transiting from outside the United States Exclusive Economic Zone (EEZ) and intending to discharge ballast in state waters are required to conduct an open sea exchange at least 200 nautical miles offshore in waters greater than 2000 m deep.
  3. Vessels voyaging from a port within the common water zone to a port in Washington state are exempt from having to conduct a ballast water exchange if the ballast water and sediment originated solely from a valid exchange prior to entering the common waters or from uptake within an area that includes only the waters of Washington state

- Common waters of the state can be seen at:
  http://wdfw.wa.gov/ais/ballast/common_waters_definition_aug0609.pdf

- Penalties:
  1. The department may issue a verbal warning, notice of correction, or notice of civil penalty up to twenty-seven thousand five hundred dollars for each day of a continuing violation of the requirements of ballast water management regulations pursuant to RCW 77.120.070. Each and every such violation will be a separate and distinct violation.
  2. The department may also seek criminal penalties where warranted.
- Reporting requirements:
  1. The Ballast water reporting form is the same as the federal one at NBIC (IMO forms are also accepted).
  2. *Under WAC 220-150-030 t*he Ballast Water Reporting Forms must be filed electronically (preferred) or by fax:
     - *at least 24 hours prior to arrival in state waters*
     - *between Oregon and Washington ports on the Columbia River*
     - *before transiting between Washington State ports*
     - amended forms are required where there are information errors or actual discharges differ from the information reported
  3. Reporting forms must be submitted to:

     The Washington Department of Fish & Wildlife
     Email: ballastwater@dfw.wa.gov

FAX: 360-902-2845
(Info: 360-902-2724)

- More information is available at:
  http://wdfw.wa.gov/ais/ballast/
  and
  http://wdfw.wa.gov/ais/ballast/wac_220-150_ballast_water_rules_072609.pdf

o **Wisconsin**

As part of its certification of the 2013 Vessel General Permit (see SMS FOM 338), this State has imposed the following additional requirements to the VGP with regards to Ballast Water Management:

- Oceangoing vessels that enter the Great Lakes-St. Lawrence Seaway system and are transiting from beyond the 200-nautical-mile EEZ shall perform open ocean BWE or saltwater flushing before entering the Great Lakes-St. Lawrence Seaway system in order to ensure water quality standards are met that protect the general public interest.

- Vessels must obtain any permits required by the state of Wisconsin for vessel discharges.

- WDNR's ballast water discharge general permit WI-0063835-01-1 requires vessels meeting the permit's applicability criteria to comply with the biological treatment performance standards shown in the table below and implementation schedule as provided in the EPA VGP

Parameter	Limit and Units	Limit Type	Sample Type
Organisms > 50 µm in minimum dimension	< 10 viable organisms per m^3	Daily Average	Composite
Organisms 10 - 50 µm in minimum dimension	< 10 viable organisms per ml	Daily Average	Composite
Escherichia coli	< 250 cfu per 100 ml	Daily Average	Composite
Intestinal enterococci	< 250 cfu per 100 ml	Daily Average	Composite

- If ballast water treatment systems are approved and commercially available and compatible for a specific vessel, the vessel owner will make reasonable efforts to install a treatment system at the earliest practicable date.

- Discharges of ballast water from vessels using BWTS using chlorine must meet a daily maximum total residual oxidants limit, measured as total residual chlorine, of 38 µg/L.

- Discharges of ballast water from vessels containing seawater in other than insignificant residual amounts that remain in tanks and that cannot be pumped out or drained (no ballast on board) is prohibited unless it can be demonstrated that the discharge will comply with Wisconsin chloride limits.

- WDNR may require emergency treatment as part of a temporary compliance plan or temporary

alternative strategy for vessels with unexchanged or untreated ballast water discharge of high-risk ballast water.

- High-risk ballast water may not be discharged into waters of the state without WDNR review and authorization. WDNR will determine whether ballast water proposed for discharge represents a high-risk for introduction of nonindigenous species and whether feasible management alternatives are available to minimize that risk and protect waters of the state.

- Vessel owners or operators with unexchanged or untreated ballast must submit a request, providing sufficient additional information for WDNR to evaluate the request and determine whether an emergency ballast water management alternative is warranted.

- A vessel owner or operator shall not discharge untreated or unexchanged ballast water without WDNR authorization after the compliance dates have gone into effect, except where discharging is necessary to prevent jeopardy to the vessel, crew or passengers

- WDNR, coordinating with the U.S. Coast Guard (USCG) and the States of Illinois, Iowa, Michigan and Minnesota as needed may identify alternative locations for the discharge of unexchanged or untreated ballast water.

- As an alternative to discharging high-risk ballast water, WDNR may authorize the use of BWTS identified as promising technology by EPA, USCG, neighboring states or a US ballast water testing research facility.

- BWTS used in Wisconsin waters must be specifically tested for use in fresh water.

- Routine visual inspections of the BWTS are to be conducted at least on a monthly basis.

- All instances of non-compliance with this certification must be reported to WDNR immediately.

The link to the full text of the (Clean Water Act, section 410) Certification Letter of the VGP:
http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OW-2011-0141-0878