Ballast Water Management

Guidance for operators, masters and officers, and surveyors of New Zealand ships on the implementation of the International Convention for the Control and Management of Ships’ Ballast Water and Sediments, 2004 in New Zealand
Guidance on ballast water management

Last updated: November 2018

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1. Overview

**Purpose**
This guide to ballast water management on board New Zealand ships aims to inform operators, masters and officers, and surveyors of New Zealand ships of what is required in order to comply with New Zealand and international requirements.


1.1 About the Convention

Ballast water in ships is one of two key pathways (the other being hull fouling) for the introduction of harmful aquatic organisms into New Zealand’s marine environment. These organisms threaten the conservation and sustainable use of marine biological diversity and resources. Once harmful aquatic organisms establish, they can have potentially severe impacts and options for control can be challenging. Ballast water can also harbour pathogens that present a risk to human health.

The International Convention for the Control and Management of Ships’ Ballast Water and Sediments, 2004 (the Convention) is the international response to managing the biosecurity and risk of harm to human health, property and resources from ballast water. The Convention seeks to prevent, minimise and ultimately eliminate the risks arising from the transfer of harmful aquatic organisms and pathogens in ballast water by controlling and managing ships’ ballast water and sediments.

As of 13 June 2018, New Zealand is one of 73 States party to the convention treaty. The new ballast water management requirements came into effect on 8 September 2017. The new measures, under the Maritime Transport Act 1994 and Marine Protection Rules Part 300, reflect New Zealand’s obligations and privileges under the Convention.

A copy of Part 300, which gives effect to the technical annex to the Convention, is available from:

maritimenz.govt.nz/rules/

The International Maritime Organization (IMO) has produced a number of guidelines for the uniform implementation of the Convention designated G1 to G14. The guidelines are available from:

imo.org

The advisory circular to Part 300 reproduces guidelines G1, G4, G5, G6, G11, G12 and G13. The advisory circular is available from:

maritimenz.govt.nz/rules/
1. Overview (continued)

1.2 Structure of this guide

This guide is arranged to explain the following matters:

- which New Zealand ships are subject to Part 300 (section 2)
- what a ship to which Part 300 applies must have (section 3.1)
- how a ship to which Part 300 applies must operate (section 3.2)
- who is involved in the assessing and approving of ships’ ballast water arrangements (section 4)
- what is required for ships 400 GT and above (section 4.2)
- what is required ships less than 400 GT (section 4.3)
- what is required for entry or re-entry into exclusive operations (section 5)
- alternative ballast water management systems (section 6)
- requirements applied to pleasure craft (section 7)
- when and how an operator applies for approvals and acknowledgements (section 8).

Disclaimer:

This guide provides information and explanations about the requirements set out in the marine protection rules, but it is not a substitute for the rules themselves, which are the law. The guide refers to provisions in Marine Protection Rules Part 300 - Ballast Water Management.

The Director of Maritime New Zealand (Maritime NZ) will grant an approval or certificate only when satisfied that all requirements have been met. In this guide, any references to ‘we’ or Maritime NZ relating to a decision about the issue or renewal of any ballast water approval or certificate are references to the Director or a person acting under the Director’s delegated authority.

maritimenz.govt.nz/rules
2. Which ships are affected?

Ships designed or constructed to carry ballast water, and which are on an international voyage, are covered by the ballast water management requirements. Size is not material, nor whether it is commercial or recreational (although the requirements differ as explained in this guide).

The cases in the table below illustrate the application of the rules. Read it in conjunction with the key definitions in the box below.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Does Part 300 apply?</th>
</tr>
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<tbody>
<tr>
<td>A large fishing trawler with ballast water tanks leaves New Zealand to fish in the Ross Sea. It returns to New Zealand without entering a port in another State.</td>
<td>No. The ship is not on an international voyage (see key definitions below).</td>
</tr>
<tr>
<td>A New Zealand pleasure craft with ballast water tanks leaves New Zealand on a journey to Fiji.</td>
<td>Yes. International voyage + ballast tanks.</td>
</tr>
<tr>
<td>A New Zealand pleasure craft without ballast water tanks leaves New Zealand on a journey to Tonga.</td>
<td>No. It’s an international voyage but no ballast tanks.</td>
</tr>
<tr>
<td>A large New Zealand cargo ship travels in ballast from New Zealand to Singapore to dry-dock.</td>
<td>Yes. International voyage + ballast tanks.</td>
</tr>
<tr>
<td>A New Zealand ship in MOSS working seasonally in the South Pacific undertakes a voyage from Tonga to Samoa. The ship has ballast water tanks.</td>
<td>Yes. International voyage + ballast tanks.</td>
</tr>
<tr>
<td>A New Zealand yacht with ballast water tanks does a coastal passage from the Bay of Islands to the Marlborough Sounds.</td>
<td>No. It’s not an international voyage.</td>
</tr>
<tr>
<td>A New Zealand cargo ship carrying permanent ballast water travels from Tauranga to Rarotonga and back.</td>
<td>No. Although the ship is carrying ballast water, this is in enclosed sealed tanks.</td>
</tr>
</tbody>
</table>
2. Which ships are affected? (continued)

Key definitions

- **Ballast water**, in relation to a ship, means water with its suspended matter taken on board the ship to control the ship’s trim, list, draught, stability, or stresses.

- **Ballast water tank** means any tank on a ship used for carrying, loading, or discharging ballast water, including any multi-use tank designed to allow carriage of ballast water.

- **Permanent ballast water** means ballast water that is contained in a sealed tank and from which discharge of the ballast water or any other form of ballast water management in relation to the ballast is not intended to occur in the normal course of the operation of the ship.

- **Non-permanent ballast water** means ballast water that is not permanent ballast water.

- **International voyage** means a journey by water from—
  
  (a) a port in New Zealand to a port outside of New Zealand or vice versa; or
  
  (b) for a New Zealand ship, a port outside New Zealand to another port outside New Zealand.

Part 300 applies to the anti-roll tanks of fishing ships as these tanks fit the definition of ballast water tanks.

Part 300 does **not** apply to permanent ballast water – that is, water in enclosed sealed tanks that is not loaded or discharged in the normal course of the operation of a ship i.e. the ballast water is only ever discharged or loaded when dry-docking the ship.
3. Requirements applied to all ships

3.1 What a ship must have to operate

Ballast water management plan

A ship must have a ballast water management plan to guide the crew in the management of ballast water and sediments. The plan is specific to the ship, and its particular ballast water system (equipment, arrangements, fittings and procedures) and its discharge standard, as explained below.

A management plan, according to rule 300.80, must include:

- processes and related actions for ballast water operations
- processes and related actions for disposal of sediment at sea and on shore
- safety procedures for the ship and its crew associated with ballast water operations and the removal and disposal of sediment
- the procedures for coordinating shipboard ballast water management that involves discharge to the sea with the authorities of the State into whose waters such discharge will take place. (Relevant circumstances are identified below at bullet points 7 and 8.)

A plan must also:

- designate the person in charge of ensuring the plan is properly implemented
- contain the reporting and record keeping requirements
- be written in English
- be approved by the Director.

To avoid possible additional scrutiny during future port State control inspections, it is recommended that the plan for a ship usually in exclusive operation on the New Zealand coast with occasional international voyages for dry-docking or short-term charters should include procedures for use before entering or re-entering such operations, for:

- fully discharging all ballast water, including any residual ballast water, and complete removal and disposal of all sediments
- cleaning ballast water tanks, piping and equipment.

A plan should also provide advice to the master in responding to the following circumstances:

- notification of any additional standards or requirements for ballast water management in areas specified by a coastal State or States
- use of any coastal State designated areas for ballast water exchange where fulfilment of the exchange standard is not possible
- warnings received from a coastal State not to uptake ballast water in defined areas due to, for example, the presence of sewage outfalls or outbreaks of toxic algal blooms.

To ensure a management plan meets the criteria in rule 300.80 an operator should have regard to the International Maritime Organization (IMO) guidelines on ballast water management plans (G4) attached at Annex I as these will be used to assess content for approval purposes (see section 4 for plan assessment and approval).

Plans should be simple documents.
3. Requirements applied to all ships (continued)

Ballast water management system

A ballast water management system is the totality of a ship’s equipment, arrangements, fittings, and procedures concerned with ballast water.

Discharge standards – treatment or exchange?

A ship’s ballast water management system depends on which of the two discharge standards it follows.

One standard, known as D-1, involves exchanging ballast water in areas outside the influence of coastal and estuarine ecosystems (as described in section 3.2). The standard, set in rule 300.120, is set out in the box below together with associated operational instructions on the conduct of exchange.

The exchange standard is an interim step in the implementation of the Convention. It is only an option for existing ships, and for a limited period of time. After that transitional period expires, all ships subject to Part 300 will be required to meet the treatment standard. Section 4.2 explains the timetable for transition to the treatment standard.

**D-1 Ballast water exchange standard**

95 per cent volumetric exchange of the water in ballast water tanks

Additional operational requirements for conduct of exchange:

- more than 200 nautical miles from land and in water at least 200 metres in depth or if that’s not practicable then as far as possible from the nearest land and in all cases at least 50 nautical miles from the coast, and in water at least 200 metres in depth; or
- in a ballast water exchange area designated by a coastal State.

Reference rules 300.120 and 300.122

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1 D-1 and D-2 come from the headings of the relevant regulations in the Convention’s Annex.
3. Requirements applied to all ships (continued)

The second standard under Part 300, known as D-2, involves treatment of ballast water before discharge in order to kill or reduce the number and size of viable organisms or concentrations of pathogens. The box below sets out the performance standard, found in rule 300.140, which all treatment equipment must meet.

**D-2 Ballast water performance standard – organisms**

Discharged ballast water must contain less than—

- 10 viable organisms per cubic metre that are greater than or equal to 50 micrometres in minimum dimension; and
- 10 viable organisms per millilitre (mls) that are—
  - greater than or equal to 10 micrometres in minimum dimension; but
  - less than 50 micrometres in minimum dimension; and

**D-2 Ballast water performance standard – pathogens**

Discharged ballast water must contain less than the maximum concentration of the indicator microbes specified below:

- Toxicogenic Vibrio cholera (O1 and O139)
  - 1 cfu* per 100 mls; or
  - 1 cfu per 1 gram (wet weight) zooplankton samples
- *Escherichia coli* 250 cfu per 100 mls
- Intestinal Enterococci 100 cfu per 100 mls.

*cfu means “colony forming unit”

Reference rule 300.140
3. Requirements applied to all ships (continued)

Treatment equipment

Maritime NZ does not issue type-approvals for treatment equipment but accepts equipment type-approved by all maritime administrations in States party to the Convention. A range of type-approved equipment is on the market, using, variously, chemical, mechanical, and physical treatment technologies.

The list of all currently type-approved ballast water treatment equipment can be provided on request as it is continuously being amended. See section 4 for assessment and approval of ballast water management systems.

Treatment equipment installed prior to, or on 28 October 2020

Operators must install equipment approved under the:

- IMO G8 Code adopted in April 2018, or
- 2016 G8 guidelines (adopted by resolution MEPC.279(70)), or
- G8 guidelines (adopted by resolution MEPC.174(58)).

Treatment equipment installed after 28 October 2020

Operators must install equipment approved under the IMO G8 Code adopted in April 2018.
3. Requirements applied to all ships (continued)

3.2 How a ship must operate

Ballast water and sediment management

A ship must load and discharge ballast water, including treated water (where equipment is fitted), and manage the disposal of sediments at sea and to shore in accordance with its ballast water management plan, and in conformity to the applicable discharge standard. It is the responsibility of the owner and the master to ensure this happens. In doing so, they must take into account any relevant IMO guidelines.²

If a ship is subject to the exchange standard, Rule 300.122 requires a ship to conduct ballast water exchange in the areas described above.

A ship conducting exchange may do so by sequentially discharging and filling tanks, or by pumping water through the tank using flow through or dilution methods. Under rule 300.121, a ship using the flow through or dilution methods must pump through 3 times the capacity of the tank in order to meet the standard, or it must be able to demonstrate that any lesser volume achieves a 95 per cent volumetric exchange.

Safety is paramount in conducting exchange

One of the limitations of exchange as a method of ballast water management is that the master may consider it unsafe and a ship may arrive at the end of an international voyage without having exchanged its ballast.

Rule 300.122 acknowledges the master’s authority not to exchange ballast water. The rule’s test is that the master must reasonably believe that complying with the exchange standard would threaten the safety or stability of the ship, its crew, or its passengers because of adverse weather, ship design or stress, equipment failure, or any other extraordinary condition.

However, a port State may require a ship not to discharge un-exchanged waters as detailed above, but to proceed to a designated exchange/discharge area when safe to do so.

Records and reporting

Rule 300.81 requires the owner and the master of a ship to keep records of ballast water and sediment operations. Details of each completed operation (time date, volumes, and location) must be entered in the book without delay, along with any exceptions, exemptions or other reasoning to support a specific ballast water operation. The person in charge of the operation must initial the record, and the master must sign each completed page.

The record book must remain on board the ship for at least two years and in the owner’s control for a further period of at least three years. (If a ship’s ownership changes, the obligation passes to the new owner.) The ship may keep ballast water management records electronically, and they may be part of another record or log.

² See Part A of the Guidelines for ballast water management and development of ballast water management plans (G4) (resolution MEPC.127(53), adopted 22 July 2005.)
3. Requirements applied to all ships (continued)

The record book must contain the information specified in the form specified in Appendix II of the Convention. Maritime NZ would recommend that a ship use the form in the Convention to avoid any sanctions during port State control inspections. Annex II of this guide shows the form. It is recommended that operators undertaking exchange also complete the form specified in the IMO G6 guidelines to ensure they meet the requirements of foreign jurisdictions.

Maintenance and changes

Rule 300.105 requires the owner of a ship to ensure proper maintenance of the ship and its ballast water management system so that the ship is fit to proceed to sea without presenting a threat of harm to the environment, human health, property, or resources from the ship’s ballast water and sediment.

The owner must seek the Director’s approval for any change to the ship’s structure, equipment, fittings, arrangements, or materials associated with the ballast water management system. The owner, however, may replace equipment and fittings involving direct substitution of like for like.

Reporting and investigation of accidents

Rule 300.106 requires the owner and the master of a ship to report to the Director any accident or defect that significantly affects the ship’s ability to conduct ballast water management. If a ship is overseas in the jurisdiction of another party to the Convention, the owner and the master must also report to the port State authority.

The Director considers such reports and whether any additional information is required to determine if an additional survey is necessary.
4. Plan approval, survey and certification

4.1 Introduction

The basic credential that a ship presents to a port State is its International Ballast Water Management Certificate (ship 400 GT and above), or its ballast water management approval (ship less than 400 GT). Both are marine protection documents issued under section 269 of the Maritime Transport Act 1994. As marine protection documents, they may be subject to conditions, suspension and revocation on the grounds provided for in the Act.

Under the Convention, a port State must accept the flag State’s certificate or approval as prima facie evidence of compliance with the Convention. If the certificate or approval is expired or invalid, or if there is evidence that the ship doesn’t substantially conform to the details on the certificate, the port State may undertake a more detailed inspection to establish that the ship complies – a step that is likely to stop discharge of ballast water and may possibly involve detention of the ship.

The certificate or approval is therefore an important document, both in meeting the objectives of the Convention and ensuring the smooth conduct of the ship’s business. As a marine protection document under the Maritime Transport Act it is the basis for the Director’s control of entry to and participation in the ballast water management aspects of the maritime transport system.

The issue of the certificate or approval is the final step following:
- assessment and approval of the ballast water management plan
- survey of the ship to confirm that the plan is a living document and that the ship’s equipment, arrangements, fittings and procedures meet the requirements of Part 300
- assessment and approval of the ballast water management system (evidenced by the issue of a certificate or document of approval).

4.2 Requirements applied to ships 400 GT and above

Ballast water management plan assessment and approval

For ships in class, the recognised organisation (RO) assesses the plan and issues the approval under delegated authority from the Director. The RO carries out the assessment to verify that the plan complies with the requirements of rule 300.80. The RO should also have regard to the IMO G4 guidelines at Annex I.

Where a ship intends to operate to the exchange standard, the RO confirms that the plan’s safety procedures ensure that stability remains at all times within applicable values and that approved longitudinal stresses and, where applicable, torsional stresses are maintained within permitted values. The procedures must provide instructions to minimise any structural loads arising from sloshing action in partially-filled tanks, and any wave-induced hull vibrations.

For ships not in class, the Director assesses the plan and issues the approval.

An operator submitting a plan to the Director for approval for exchange standard operation by a ship not in class, must provide a technical assessment of the ship’s stability and longitudinal and (where applicable) torsional stresses undertaken by a qualified person acceptable to the Director. The technical assessor may also advise the operator on related matters in the plan, such as the appropriate sequence for loading and discharging ballast water tanks.

The Director has determined that a qualified person in this respect is a degree-qualified naval architect or a Maritime NZ recognised surveyor for design approval.
4. Plan approval, survey and certification (continued)

An operator must apply for a new approval if a plan is amended. The operator should consider amendments carefully as it could require a new survey and a new ballast water management system approval.

Survey

An operator of a ship subject to Part 300 must retain a surveyor who works for an RO for ships in class or who has recognition in their own right to undertake ballast water surveys under the Part. Recognition to do ballast water management surveys is available to surveyors who satisfy the qualification and experience requirements on the Maritime NZ surveyors’ recognition framework available at

maritimenz.govt.nz/surveyors

An operator of a ship in class will generally engage an RO surveyor. An operator of a ship not in class will generally use a recognised surveyor (although some ROs will survey non-class ships and report the results to the Director).

The operator must arrange for their RO or their recognised surveyor to conduct an initial survey under rule 300.62. This survey verifies that the ship’s ballast water management plan meets the requirements in rule 300.80 and that the structure, equipment, systems, fittings, arrangements, and material or processes associated with the ship’s ballast water management plan meet the requirements in Subpart E.

Subsequently, the operator arranges for their RO or recognised surveyor to conduct annual and intermediate surveys within three months of the anniversary date of the IBWMC. Rule 300.62 defines the scope of the survey.

- An annual survey involves a general inspection of the equipment, systems, fittings, arrangements, and material or processes associated with the ship’s ballast water management plan; and considers whether the equipment, systems, fittings, arrangements, and material or processes have been maintained in accordance with rule 300.105 and that they remain satisfactory for the service for which the ship is intended.
- An intermediate survey involves an inspection of the equipment, associated systems, and processes of the ship for ballast water management; and considers whether the equipment, associated systems, and processes fully comply with the applicable requirements of this Part and are in good working order.

The scope of a renewal survey is similar to an initial survey.

Surveyors conducting ballast water surveys should have regard to relevant IMO guidelines, such as the G4 guidelines at Annex I.

Ballast water management system assessment and approval

For a ship in class, the RO carries out an assessment of the system based on the surveyor’s report and issues an approval to the operator in the form of an International Ballast Water Management Certificate. The RO does this under delegated authority from the Director.

For a ship not in class, the Director assesses the system and issues the approval in the form of an International Ballast Water Management Certificate. The Director bases the assessment on the surveyor’s survey report.

Operators of ships not in class apply to the Director for system approval and certificate issuance on Maritime NZ form Application for Document of Approval of ballast water management.

The RO and Director-issued certificates are valid for up to 5 years, subject to satisfactory annual and intermediate surveys, as detailed above.

See section 8.1 and the notes on the application form for further information.
4. Plan approval, survey and certification (continued)

**Transitional provisions for performance standard**

Appendix A of Rule 300 allows ships built before 8 September 2017 that are not subject to an IOPP renewal survey under MARPOL Annex I to transition from the exchange standard (D-1) to the ballast water performance standard (D-2) over a seven-year period concluding on 8 September 2024. Ships constructed on or after 8 September 2017 must meet the ballast water performance standard in Rule 300.140.

Ships constructed before 8 September 2017 that are subject to an IOPP renewal survey under MARPOL Annex I must meet the ballast water performance standard on the first or second renewal survey in accordance with the flow chart below.

By phasing in the performance standard, shipyards can more easily accommodate the large number of ships requiring installation of treatment equipment. There may also be economies if operators combine equipment installation with other scheduled dry-docking.

**Entry or re-entry into exclusive operations**

Ships that are required to undertake one-off voyages to a foreign jurisdiction for the purpose of maintenance or repair should refer to Section 5 of this guidance for direction on requirements regarding alternatives to the installation of BWTE to meet the D-2 standard.
4.3 Requirements applied to ships less than 400 GT

The plan, survey and system requirements for ships less than 400 GT mirror substantially the requirements for ships of 400 GT and above.

However, the following differences are noted:

- Most (but not all) ships of this size will not be in class. As a result, operators will generally be applying directly to the Director (not an RO) for the management plan approval and must include an assessment of the safety of the proposed ballast water operations.
- The ships are required to have evidence that the arrangements on board align with the approved management plan – see following section on survey.
- As per the first bullet point above, most (but not all) ships of this size will not be in class. As a result, operators will generally be applying directly to the Director (not an RO) for the system approval and related document issue.
- The system approval is evidenced by a ballast water management approval rather than an International Ballast Water Management Certificate.
- Ships of this size will often be required to apply for and be issued with a Certificate for International Voyage in addition to meeting the ballast water management requirements.
- Appendix A to Part 300 requires ships that do not hold an IOPP certificate (including ships less than 400 GT) to transition from D-1 to D-2 by 8 September 2024.

Survey for ships of less than 400 GT

For ships of less than 400 GT subject to Part 300 evidence is required that the arrangements on the ship align with those in the approved management plan. The recommended approach following approval of the management plan is for an operator to approach a Maritime NZ recognised surveyor for the purposes of operating in the unlimited area (P1 or P1r recognition) to undertake a survey. The surveyor will undertake the survey against the criteria Maritime NZ has provided to surveyors and complete the relevant surveyor checklist and report. These documents can be used to apply for system approval (see section 8 below).

Your Ballast Water Management Approval will also require you to provide further evidence after 24 months that the arrangements continue to align with your plan. Most likely, this will be a condition that requires an intermediate survey. The same surveyors may be contracted to undertake this survey.

Maritime NZ recognised surveyors for the purposes of unlimited operations (only P1 or P1r surveyors for the hull material of the ship) can be identified at:

maritimenz.govt.nz/MOSS

Entry or re-entry into exclusive operations

Ships that are required to undertake a one-off voyage to a foreign jurisdiction for the purpose of maintenance or repair should refer to Section 5 of this guidance for direction on requirements regarding alternatives to the installation of BWTE to meet the D-2 standard.

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3 A maritime transport operator of a ship of less than 45 m in length overall and 500 GT is required to hold a CIV before proceeding on an international voyage.
5. Entry or re-entry into exclusive operations

**New Zealand ships**

Part 300 has no specific requirements dealing with entry and re-entry into exclusive operations in waters under New Zealand jurisdiction following occasional international voyages, for example for dry docking or for short term charters.

In line with IMO guidance, Maritime NZ’s advice to an operator of a New Zealand ship in these circumstances is to:

- include a procedure in their approved ballast water management plan for thoroughly cleaning ballast water tanks, piping and equipment
- prior to entry or re-entry into exclusive operations:
  - fully discharge all ballast water, including any residual ballast water, and completely remove and dispose of all sediments, in accordance with the ship’s approved ballast water management plan
  - carry out the cleaning procedure and record the results.

Ships that undertake occasional voyages for the purpose of maintenance or repair should review IMO guidance for alternatives to installing BWTE for the purposes of meeting the D-2 standard. This guidance provides a mechanism for owners of ships that only occasionally undertake international voyages for the purposes of maintenance or repair to seek an exemption from the requirements in the Convention. Prior to seeking an exemption from the flag State (i.e. Maritime NZ) the ship operator should approach the coastal State into whose waters they will be sailing to seek an exemption from the requirement to install equipment and only undertake exchange to the D-1 standard. The coastal State may have various requirements prior to considering an exemption, including a risk assessment for the specific voyage and evidence of cleaning of ballast tanks prior to departure. If an exemption is provided by the relevant coastal State the operator can then approach Maritime NZ to seek an exemption for the re-entry voyage into New Zealand and an exemption from the requirement to meet the D-2 standard for the outgoing voyage. Approval would be based on evidence that the receiving coastal State is satisfied.

If a ship adopts this approach they must ensure:

- their approved ballast water management plan includes a procedure for entry or re-entry into exclusive operation in a single jurisdiction, and
- their procedures for completing ballast water exchange meet D-1 requirements.

Following this advice should help ensure ships have no future complications with port State control when next travelling overseas.

**Foreign ships**

An operator of a foreign ship should contact Maritime NZ if they are proposing to enter or re-enter into exclusive operations on the New Zealand coast and require an authorisation for the ship’s administration.
6. Alternative ballast water management systems

Under Rule 300.161 the Director may, having regard to IMO guidelines on the topic\(^5\), approve trials of ballast water treatment technologies that the Director considers have the potential to exceed the current performance standard. Operators of ships may apply to participate in trials of these methods, and if accepted, they do not have to comply with the discharge standard that would otherwise apply for a period up to 5 years.

To date, no alternative technologies have been approved by the Director. So it’s not a compliance option for ships at the present time.

Any proponents of promising technologies should contact international.shipping@maritimenz.govt.nz.

\(^5\) Currently, Guidelines for approval and oversight of prototype ballast water treatment technology programmes (G10) (resolution MEPC.140(54), adopted 24 March 2006.)
7. Requirements applied to pleasure craft

Options for compliance for pleasure craft less than 50 metres in length and with a ballast water capacity of 8 cubic metres or less

Your options are to either:

- elect to comply with only section 1 of the Directors guidelines; or
- elect to comply with sections 1 and 2 of the Directors guidelines; or.
- meet the requirements for a commercial vessel of the relevant size.

If you elect to follow the Directors Guidelines, read the Equivalent compliance section below.

If you elect to meet the requirements for a commercial vessel of the relevant size, you will be fully surveyed and certified for the purposes of ballast water management. To find out more about these requirements, refer to section 3 above.

Equivalent compliance

Part 300 Subpart I provides a pathway for equivalent compliance for small pleasure craft designed or constructed to carry water ballast, when on an international voyage. Operators of eligible ships may elect to comply with the Director’s guidelines made under rule 300.181.

To be eligible to comply with the Director’s guidelines, the pleasure craft must be less than 50 metres in overall length and have a ballast water capacity of 8 cubic metres or less. The Director’s guidelines can be found at maritimenz.govt.nz/ballast. Any pleasure craft that is required to comply but does not meet the BWM capacity and length criteria must comply with the relevant rules for commercial ships – see above sections of this guide.

If you choose to comply with the Director’s guidelines, section 1 of the guidelines is mandatory. This section sets out operational practices for the management of ballast water and sediments. You don’t have to notify the Director of this election, but you can if you want an acknowledgement letter from the Director that you have elected to comply with the guidelines. It’s not compulsory under New Zealand law to hold the acknowledgement, but it might be required by other jurisdictions that you visit. Taking the time to develop a simple plan, keeping records and applying for a letter acknowledging election to comply with the Director’s guidelines could pay dividends in the event that port State control officials in a foreign port inspect the ship to determine whether it complies with the Convention.
Acknowledgement of election

To receive a letter of acknowledgement that you have elected to comply with the Director’s guidelines, you must:

- provide a copy of a ballast water management plan applicable to the craft which as a minimum:
  - describes the ballast water management arrangements and procedures on board the ship
  - provides instructions to the crew on the operation of the arrangements to meet the practices described in section 1
  - identifies, where the ship has a treatment system, any Active Substances
  - identifies the crew responsible for operation of the arrangements and for following ballast water management procedures

- provide a copy of a ballast water management record book showing ballast water operations which as a minimum records the date, time, volume and location of any ballast water uptake, treatment (where applicable) and discharge⁶

- provide an undertaking that you will ensure the crew of the ship comply with the guidelines, follow the ship’s ballast water management plan, and record ballast water operations.

A letter, a plan and good records should be sufficient to satisfy port State inspectors and, as a result, the craft should avoid the inconvenience of undergoing a more detailed inspection and possible detention.

⁶ Operators developing a record book which includes ballast water exchange may find the record form in the IMO G6 guidelines useful.
8. When and how to apply for approvals

8.1 Steps in application process

1. Development, assessment and approval of the ballast water management plan

   1.1 Operator determines that ship is subject to Part 300.

   1.2 Operator develops plan.

   1.3 Operator applies for approval of plan.

   - Application is made to a recognised organisation (if ship in class) or Director on Maritime NZ form Application for approval of ballast water management plan (ship not in class).

   - Where application is to the Director for a ship operating to the exchange standard, the operator provides an assessment of the ship’s stability and longitudinal and (where applicable) torsional stresses by a qualified person acceptable to the Director.  

   1.4 Plan assessed and approved or declined – assessment and decision made by RO (if ship in class) or Director (ship not in class).

2. Survey of the ship

   2.1 Operator arranges for a survey with RO (if in class) or recognised surveyor if not in class.

   2.2 Survey conducted to confirm that the plan is a living document and that the ship’s ballast water management system (equipment, arrangements, fittings and procedures) meet the requirements of Part 300.

   2.3 Survey report produced and provided to operator, and to RO (where ship is in class).

3. Assessment and approval of the ballast water management system

   3.1. Operator applies for approval of system.

   - Application is made to Director (if ship not in class) on Maritime NZ form Application for approval of ballast water management system.

   - Application needs to include the completed survey report form if being made to the Director.

   - This step will likely be considered by the RO on completion of the survey.

   3.2. System assessed and approved – assessment and decision made by RO (if ship in class) or Director (ship not in class).

   3.3. Certificate or approval issued and received by operator or application declined.

7 The Director has determined that the following persons are qualified to do this work:

   - a degree-qualified naval architect
   - a Maritime NZ recognised surveyor for design approval.
8. When and how to apply for approvals (continued)

3.4. Once we have received all of the information we need from the operator, it may take us up to 20 working days to process the application, so apply as soon as possible (and at least one month before you need your certificate or approval).

3.5. Make sure you include all of the documents we have asked for. Refer to the checklist on the application form to make sure you have everything you need for your application.

**Note**

If your application is incomplete, it will not be processed and we will return your application and other documents to you.

Send us your applications by courier or email

There are two options for you to send your application:

1. Use a courier to send us your completed forms, and survey report.
2. Send your application by email, attaching the scanned documents. (The application form has information about the requirements for electronic copies.)

Send confirmation and/or request

We will send you an email or letter to:

- confirm that we have received your application
- list any documents we need from you before we can assess your application.

Assessment

After receiving all the documents we need, we will assess applications for approvals and make a decision. This will usually take up to 20 working days (about a month).

Acknowledgement of election to comply with subpart I (pleasure craft)

Acknowledgements usually take up to 5 working days. There is no assessment as such.

Issue of approvals or acknowledgement

We will send you:

- approval or acknowledgement, if the application has been successful, or
- an email or letter explaining why the application was not successful.
8. When and how to apply for approvals (continued)

8.2 Where to send your application

To provide extra security, we recommend that you courier your application forms and documents to us.

Alternatively, you can scan and email your application and supporting documents (refer to the application form for information about how to send your documents electronically).

Courier your application to:
Operator Certification
Maritime New Zealand
1 Grey Street
WELLINGTON 6011

Or

Email your application to:
operators@maritimenz.govt.nz
9. Contact us for help

For more information about the ballast water management requirements, visit:

maritimenz.govt.nz/ballast

If you can’t find the information you need, send us an email:

operators@maritimenz.govt.nz

Tell us what areas you need help with and remember to include your contact details (email address and phone numbers).

We need your completed application before we can assess whether you meet the requirements for approval.
10. Forms

Apply for approval of a ballast water management plan, approval of a ballast water management system (in the form of an International Ballast Water Management Certificate, or a document of approval), or a letter of acknowledgement by completing the following forms as appropriate:

- application for approval of ballast water management plan
- application for document of approval for ballast water management
- ballast water management on pleasure craft: application for a letter of acknowledgement.

Each of these forms is available on the Maritime NZ website:

maritimenz.govt.nz/ballast

**Note:**
You must complete these forms correctly for the application to be valid. Carefully read any notes.
ANNEX 5

RESOLUTION MEPC.127(53)

Adopted on 22 July 2005

GUIDELINES FOR BALLAST WATER MANAGEMENT AND DEVELOPMENT OF BALLAST WATER MANAGEMENT PLANS (G4)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE.

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution.

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships’ Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Regulation B-1 of the Annex to the Ballast Water Management Convention provides that each ship shall have on board and implement a ballast water management plan approved by the Administration, taking into account Guidelines developed by the Organization,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invites the Organization to develop these Guidelines as a matter of urgency,

HAVING CONSIDERED the draft Guidelines for ballast water management and development of ballast water management plans developed by the Ballast Water Working Group and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its ninth session,

1. ADOPTS the Guidelines for ballast water management and development of ballast water management plans, as set out in the Annex to this resolution;

2. INVITES Governments to apply the Guidelines as soon as possible, or when the Convention becomes applicable to them; and

3. AGREES to keep the Guidelines under review.
ANNEX

DRAFT GUIDELINES FOR BALLAST WATER MANAGEMENT AND THE DEVELOPMENT OF BALLAST WATER MANAGEMENT PLANS (G4)

1 INTRODUCTION

1.1 Ballast water is essential to control trim, list, draught, stability, or stresses of the ship. However, ballast water may contain aquatic organisms or pathogens which, if introduced into the sea including estuaries, or into fresh water courses, may create hazards to the environment, human health, property or resources, impair biological diversity or interfere with other legitimate uses of such areas.

1.2 The selection of appropriate methods of ballast water management should take into account the need ensure that Ballast Water Management practices used to comply with this Convention do not cause greater harm than they prevent to the environment, human health, property or resources of any States and the safety of ships.

1.3 The objectives of these Guidelines are to assist Governments, appropriate authorities, ships masters, operators and owners, and port authorities, as well as other interested parties, in preventing, minimizing and ultimately eliminating the risk of introducing harmful aquatic organisms and pathogens from ships’ ballast water and associated sediments while protecting ships’ safety in applying the International Convention for the Control and Management of Ships’ Ballast Water and Sediments (hereinafter referred to as the “Convention”).

1.4 These guidelines consist of two parts:

   Part A – "Guidelines for Ballast Water Management", which contains guidance on the general principles of Ballast Water Management; and


2 DEFINITIONS

2.1 For the purposes of these Guidelines, the definitions in the Convention apply.

2.2 Ballast Water Tank means any tank, hold, or space used for the carriage of ballast water.

3 APPLICATION

3.1 The Guidelines apply to all ships and to Flag Administrations, port States, coastal States, ship owners, ship operators, ships’ personnel involved in Ballast Water Management, ship designers, ship builders, classification societies as well as other interested parties.

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PART A – GUIDELINES FOR BALLAST WATER MANAGEMENT

1 SHIP OPERATIONAL PROCEDURES

1.1 Precautionary practices

Avoiding unnecessary discharge of ballast water

1.1.1 If it is necessary to take on and discharge ballast water in the same port to facilitate safe cargo operations, care should be taken to avoid unnecessary discharge of ballast water that has been taken up in another port.

1.1.2 Managed ballast water which is mixed with unmanaged ballast water is no longer in compliance is no longer in compliance with Regulations D-1 and D-2 of the Annex to the Convention.

Minimizing the uptake of harmful aquatic organisms, pathogens and sediments

1.1.3 When loading ballast, every effort should be made to avoid the uptake of potentially harmful aquatic organisms, pathogens, and sediment that may contain such organisms. The uptake of ballast water should be minimized or, where practicable, avoided in areas and situations such as:

.1 in areas identified by the port State in connection with advice provided by ports under paragraph 2.2.2;

.2 in darkness when organisms may rise up in the water column;

.3 in very shallow water;

.4 where propellers may stir up sediment; or

.5 where dredging is or recently has been carried out.

1.2 Ballast water management options

1.2.1 Ballast Water Exchange

1.2.1.1 Ballast water exchange is to be conducted in accordance with Regulation B-4 of the Convention and in accordance with the Guidelines for Ballast Water Exchange.

1.2.1.2 The voyage should be planned taking into account when ballast water exchange in accordance with Regulation B-4 of the Convention can be carried out.

1.2.1.3 Because of the possibility that partially exchange may encourage re-growth of organisms, ballast water exchange should only be commenced in any tank if there is sufficient time to complete the exchange to comply with the standard in Regulation D-1 and the ship can comply with the distance from land and minimum water depth criteria in Regulation B-4. As many complete tanks should be exchanged to the standard in Regulation D-1 as the time allows,

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if for any tank the standard in Regulation D-1 can not be fully met the exchange should not be commenced for that tank.

1.2.1.4 If ballast water exchange is not undertaken for the reasons in Regulation B-4.4, i.e. if the master reasonably decides that such exchange would threaten the safety or stability of the ship, its crew, or its passengers because of adverse weather, ship design or stress, equipment failure, or any other extraordinary condition, then details of the reasons ballast water exchange was not undertaken are to be recorded in the Ballast Water Record Book.

1.2.1.5 A port State may designate areas in which exchange may be conducted taking into account the Guidelines on designation of areas for ballast water exchange. Designated areas should only be used for those ballast water tanks that are intended to be discharged in the port of that State and that could not be exchanged in accordance with Regulation B-4.1 of the Convention.

1.2.2 Ballast Water Management Systems

1.2.2.1 Ballast Water Management Systems installed for compliance with Regulation B-3 are to be approved in accordance with Regulation D-3. Such systems are to be operated in accordance with the system design criteria and the manufacturer’s operational and maintenance instructions. The use of such systems should be detailed in the ship’s Ballast Water Management Plan. All failures and malfunctions of the system are to be recorded in the Ballast Water Record Book.

1.2.3 Discharge to ballast water reception facilities

1.2.3.1 If ballast water reception facilities provided by a port State are utilized, Regulation B-3.6 applies.

1.2.4 Prototype ballast water treatment technologies

1.2.4.1 Prototype ballast water treatment technologies should be used within a programme approved by the Administration in accordance with Regulation D-4.

1.3 Sediment management

1.3.1 Regulation B-5 requires that all ships shall remove and dispose of sediments from spaces designated to carry ballast water in accordance with the ballast water management plan.

1.3.2 All practical steps should be taken during ballast uptake to avoid sediment accumulation, however, it is recognized that sediment will be taken on board and will settle on tank surfaces. When sediment has accumulated, consideration should be given to flushing tank bottoms and other surfaces when in suitable areas, i.e. areas complying with the minimum depth and distance described by Regulations B-4.1.1 and B-4.1.2.

1.3.3 The volume of sediment in a ballast tank should be monitored on a regular basis.

1.3.4 Sediment in ballast tanks should be removed in a timely basis in accordance with the Ballast Water Management Plan and as found necessary. The frequency and timing of removal
will depend on factors such as sediment build up, ship’s trading pattern, availability of reception facilities, work load of the ship’s personnel and safety considerations.

1.3.5 Removal of sediment from ballast tanks should preferably be undertaken under controlled conditions in port, at a repair facility or in dry dock. The removed sediment should preferably be disposed of in a sediment reception facility if available, reasonable and practicable.

1.3.6 When sediment is removed from the ship’s ballast tanks and is to be disposed of by that ship at sea, such disposal should only take place in areas outside 200 nm from land and in water depths of over 200 m.

1.3.7 Regulation B-5 requires that ships constructed in or after 2009 should, without compromising safety or operational efficiency, be designed and constructed with a view to minimize the uptake and undesirable entrapment of sediments, facilitate removal of sediments, and provide safe access to allow for sediment removal and sampling, taking into account the Guidelines for sediments control on ships (G12). This also applies to ships constructed prior to 2009, to the extent practicable.

1.4 Additional Measures

1.4.1 Ships to which additional measures apply, under Regulation C-1, should take them into account in the ships voyage planning. Actions taken to comply with any additional measures should be recorded in the Ballast Water Record Book.

1.5 Exemptions

1.5.1 Regulation A-4 provides that an exemption may be granted from the requirements of Regulations B-3 or C-1 by a Party or Parties to a ship in specific circumstances. Applications for and the granting of such exemptions should be completed in accordance with the Guidelines for risk assessment (G7).

1.5.2 Ships granted an exemption referred to in paragraph 1.5.1 above should record the exemption in the Ballast Water Record Book and what actions have been taken with regards to the ships ballast water.

2 RECORDING PROCEDURES

2.1 Procedures for ships

2.1.1 To facilitate the administration of ballast water management and treatment procedures on board each ship, a responsible officer is to be designated in accordance with Regulation B-1 to ensure the maintenance of appropriate records and to ensure that ballast water management and/or treatment procedures are followed and recorded.

2.1.2 When carrying out any ballast water operation the details are to be recorded in the Ballast Water Record Book together with any exemptions granted in accordance with Regulation B-3 or C-1.
2.1.3 Where a port State requires information on ships ballast operations, relevant documentation, which takes account of the information requirements of the Convention, should be made available to the port State.

2.2 Procedures for port States

2.2.1 Port States should provide ships with details of their requirements concerning ballast water management including:

1. the location and terms of use of areas designated for ballast water exchange under Regulation B-4.2 of the Convention;

2. any additional measures determined under Regulation C-1 of the Convention;

3. warnings concerning ballast uptake and any other port contingency arrangements in the event of emergency situations; and

4. the availability, location, capacities of reception facilities that are provided for the environmentally safe disposal of ballast water and/or sediments, under Article 5 and Regulation B-3.6.

2.2.2 To assist ships in applying the precautionary practices described in section 1.1 of Part A, port States are required by Regulation C-2 of the Convention to endeavour to notify mariners of area(s), where ships should not uptake Ballast Water due to known conditions. Similar notification should be given for areas where the uptake of ballast water should be minimized, such as:

1. areas with outbreaks, infestations or known populations of harmful organisms and pathogens;

2. areas with current phytoplankton blooms (algal blooms, such as red tides);

3. nearby sewage outfalls;

4. areas where a tidal stream is known to be the more turbid;

5. areas where tidal flushing is known to be poor;

6. nearby dredging operations; and

7. nearby or in sensitive or estuarine sea areas.

3 TRAINING AND EDUCATION

3.1 Regulation B-6 requires that officers and crew shall be familiar with their duties in the implementation of Ballast Water Management particular to the ship on which they serve. Owners, managers, operators, and others involved in officer and crew training for ballast water management should consider the following:
3.2 Training for ships' masters and crews as appropriate should include instructions on the requirements of the Convention, the ballast water and sediment management procedures and the Ballast Water Record Book particularly having regard to matters of ship safety and maintenance of records in accordance with the information contained in these Guidelines.

3.3 The Ballast Water Management Plan should include training and education on ballast water management practices and the systems and procedures used on board the ship.

PART B – GUIDELINES FOR THE DEVELOPMENT OF BALLAST WATER MANAGEMENT PLANS

1 INTRODUCTION

1.1 These Guidelines have been developed to assist with the preparation of a ship’s Ballast Water Management Plan (hereafter referred to as the “Plan”). The Plan must be approved by the Administration in accordance with Regulation B-1 of the Convention.

1.2 This Part is comprised of three primary sections:

1. General: this section provides the objectives and a general overview of the subject matter and introduces the reader to the basic concept of the Guidelines and the Plan that is expected to be developed from them. This section also contains guidance on updating and use of the Plan.

2. Mandatory provisions: this section provides guidance to ensure that the mandatory provisions of Regulation B-1 of the Annex to the Convention are met.

3. Non-mandatory provisions: this section provides guidance concerning the inclusion of other information in the Plan. This information, although not required under Regulation B-1 of the Convention, may be found useful by local authorities in ports visited by the ship, or may provide additional assistance to the ship’s master.

1.3 The format for a Ballast Water Management Plan is given in Appendix 1.

2 GENERAL

2.1 Concept of the Guidelines

2.1.1 These Guidelines are intended to provide a basis for the preparation of the Plans for individual ships. The broad spectrum of ships for which Plans are required makes it impractical to provide specific guidelines for each ship type. For a Plan to be effective and to comply with Regulation B-1 of the Annex of the Convention, it must be carefully tailored to the particular ship for which it is intended. Properly used, the Guidelines will ensure that all appropriate issues that may be applicable to a particular ship are considered in developing the Plan.

2.1.2 The issues that may require consideration include but are not limited to: type and size of ship, volume of ballast carried and total capacity of tanks used for ballast, ballast pumping
capacity, ship and crew safety issues, voyage type and length, the ship’s typical operational requirements, and ballast water management techniques used on board.

2.2 Concept of the Plan

2.2.1 The Plan is required to be onboard the ship and available to guide personnel in safe operation of the Ballast Water Management system employed on a particular ship. Effective planning ensures that the necessary actions are taken in a structured, logical, and safe manner.

2.2.2 For the Plan to accomplish its purpose, it must be:

1. realistic, practical, and easy to use;

2. understood by ship’s personnel engaged in ballast water management, both on board and ashore;

3. evaluated, reviewed, and updated as necessary; and

4. consistent with the operational ballasting requirements of the ship.

2.2.3 The Plan envisioned by Regulation B-1 of the Annex to the Convention is intended to be a simple document. Inclusion of extensive background information on the ship, its structure, etc., should be avoided, as this is generally available elsewhere. If such information is relevant, it should be kept in annexes, or an existing document or manual reference should be made to the location of the information.

2.2.4 The Plan is a document to be used onboard by the ship’s personnel engaged in ballast water management. The Plan must therefore be available in a working language of the ship’s personnel. A change in the personnel and/or the working language or would require the issuance of the Plan in the new language(s).

2.2.5 The Plan should be readily available for inspection by officers authorized by a Party to the Convention.

2.3 Exemptions

2.3.1 Regulation A-4 allows that exemption may be granted to a ship from Regulation B-3 or C-1.

2.3.2 Details of exemptions should be retained with the Plan.

2.3.3 Any exemption granted is to be recorded in the Ballast Water Record Book.

2.4 Additional Measures

2.4.1 The Convention, in Regulation C-1 Additional Measures, gives a Party individually or jointly with other Parties, the right to introduce measures in addition to those in Section B. Such Additional Measures are to be communicated to the Organization at least 6 months prior to the projected date of implementation.

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2.4.2 The Plan should be accompanied by a most recent list of Additional measures, as communicated by the Organization relevant to the ship’s trade. The Plan should contain details and advice on the actions a ship must take to comply with any additional measures that may be required in accordance with Regulation C-1 and for any emergency or epidemic situations.

2.5 Review of the Plan

2.5.1 Regular review of the Plan by the owner, operator, or master should be conducted to ensure that the information contained is accurate and updated. A feedback system should be employed which will allow quick capture of changing information and incorporation of it into the Plan.

2.5.2 Changes to the provisions of this Plan will need Administration approval.

3 MANDATORY PROVISIONS

3.1 This section provides individual guidelines for the seven mandatory provisions of Regulation B-1 of the Annex to the Convention. In addition, it provides information to assist ships personnel in managing ballast water and sediments.

3.2 Regulation B-1 of the Annex to the Convention provides that the Plan shall be specific to each ship and shall at least:

1. detail safety procedures for the ship and the crew associated with Ballast Water Management as required by the Convention;

2. provide a detailed description of the actions to be taken to implement the Ballast Water Management practices required by the Convention;

3. detail the procedures for the disposal of sediments at sea and to shore;

4. include the procedures for co-ordinating shipboard Ballast Water Management that involves discharge to the sea with the authorities of the State into whose waters such discharge will take place;

5. designates the officer on board in charge of ensuring that the Plan is properly implemented;

6. contain the reporting requirements for ships provided for under the Convention; and

7. be written in the working language of the ship. If the language used is not English, French or Spanish, a translation into one of these languages should be provided.

3.3 The Ballast Water Management Plan should give guidance on the ballast handling procedures to be followed, including:

1. uptake of ballast water;
2 step-by-step procedures and sequences for the Ballast Water Management System used; and

3 any operational or safety restrictions including those associated with the Ballast Water Management System used. This will also assist ship’s personnel when responding to enquiries from inspection officers authorized by a Party.

3.4 Safety aspects of the Ballast Water Management system used should include, as applicable, guidance on:

1 stability to be maintained at all times to values not less than those recommended by the Organization (or required by the Administration);

2 approved longitudinal stress and, where applicable, torsional stress values are to be maintained within permitted values;

3 transfer or exchange of ballast that can generate significant structural loads by sloshing action in partially-filled tanks. If these operations include partially-filled tanks, consideration should be given to carrying out the operation in favourable sea and swell conditions such that the risk of structural damage is minimized;

4 wave-induced hull vibrations when carrying out ballast water exchange;

5 forward and aft draughts and trim, with particular reference to bridge visibility, slamming and minimum forward draft;

6 the effects of any potential hazards and occupational health that may affect ship’s personnel shall also be identified together with any safety precautions that need to be taken; and

7 the possible effects of tank over pressurization.

3.5 If a ship is able to complete at least 95 per cent volumetric exchange in less than three pumped volumes, documentation indicating that this ballast water exchange process has been approved under Regulation D-1.2 should be provided in the Plan.

3.6 The Plan should also include procedures for the disposal of sediments and in particular:

1 on the sediment removal or reduction at sea, and when cleaning of the ballast tanks to remove sediments;

2 regarding the safety consideration to be taken if tank entry is required to remove sediments; and

3 regarding the use of port reception facilities for sediments.

3.7 The Plan should clearly identify the officer in charge of ballast water management and outline his/her duties which should include:

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1 ensuring that the Ballast Water Management performed follows the procedures in the Plan;

2 ensuring that the Ballast Water Record Book and any other necessary documentation are maintained; and

3 being available to assist the inspection officers authorized by a Party for any sampling that may need to be undertaken.

3.8 The Plan should contain guidance on the recording requirements according to ship’s Ballast Water Record Book provided for under this Convention including details of exemptions granted to the ship.

3.9 In addition to the above, the Plan should include the following:

1 A foreword which should provide the ship’s crew with explanations on the need for ballast water management and for record keeping. The foreword should include a statement that, “This Plan must be kept available for inspection on request by an authorized authority”.

2 Ship particulars including at least:

1 the ships’ name, flag, port of registry, Gross Tonnage, IMO number*, length (BP), beam, international call sign, deepest ballast drafts (normal and heavy weather);

2 the total ballast capacity of the ship in cubic meters and other units if applicable to the ship;

3 a brief description of the main ballast water management method(s) used on the ship; and

4 identification (rank) of the officer in charge for implementing the Plan.

3 Information on Ballast Water Management System used on board, including:

1 ballast tank arrangement;

2 ballast capacity plan;

3 a ballast water piping and pumping arrangement, including air pipes and sounding arrangements;

4 ballast water pump capacities;

* In accordance with resolution A.600(15) IMO Ship Identification Number Scheme.

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the Ballast Water Management System used on board, with references to operational and maintenance manuals held on board.

installed ballast water treatment systems; and

a plan and profile of the ship, or a schematic drawing of the ballast arrangement.

Information on the ballast water sampling points, including:

A list or diagrams indicating the location of sampling and access points in pipelines and ballast water tanks, to enable crew members to assist the authorized officers of a Party that have reason to obtain samples.

This section should make clear that sampling of ballast water is primarily a matter for the authorized inspection officers, and there is unlikely to be any need for crew members to take samples except at the express request, and under the supervision, of the authorized inspection officers.

The authorized inspection officers should be advised of all safety procedures to be observed when entering enclosed spaces.

Provisions for crew training and familiarization, including:

requirements of a general nature regarding Ballast Water Management;

training and information on ballast water management practices;

ballast water exchange;

ballast water treatment systems;

general safety considerations;

the Ballast Water Record Book and maintenance of records;

the operation and maintenance of installed ballast water treatment systems;

safety aspects associated with the particular systems and procedures used onboard the ship which affect the safety or human health of crew and passengers and/or the safety of the ship;

precautions for entering tanks for sediment removal;

procedures for the safe handling and packaging of sediment; and

storage of sediment.
4 NON-MANDATORY INFORMATION

4.1 In addition to the provisions required by Articles and regulations of the Convention, the owner/operator may include in the Plan, as appendices, additional information such as: provision of additional diagrams and drawings, shipboard equipment and reference materials. National or regional requirements that differ from the Convention may also be recorded for reference.

4.2 Non-mandatory information may also include manufactures manuals (either as extracts or complete) or reference to the location on board of such manuals and other relevant material.
APPENDIX

STANDARD FORMAT FOR THE BALLAST WATER MANAGEMENT PLAN

PREAMBLE

The ballast water management plan should contain the information required by Regulation B-1 of the Convention.

For guidance in preparing the plan the following information is to be included. The plan should be specific to each ship.

INTRODUCTION

At the beginning of each plan, wording should be included to reflect the intent of the following text.

1 This Plan is written in accordance with the requirements of Regulation B-1 of the International Convention for the Control and Management of Ships’ Ballast Water and Sediments, 2004 (the Convention) and the associated Guidelines.

2 The purpose of the Plan is to meet the requirements for the control and management of ship’s ballast water and sediments in accordance with the Guidelines for Ballast Water Management and the Development of Ballast Water Management Plans resolution MEPC XX(YY) (The Guidelines). It provides standard operational guidance for the planning and management of ships’ ballast water and sediments and describes safe procedures to be followed.

3 This Plan has been approved by the Administration and no alteration or revision shall be made to any part of it without the prior approval of the Administration.

4 This Plan may be inspected on request by an authorized authority.

Note: The Plan is to be written in the working language of the crew, if the text is not in English, French, or Spanish, the plan is to include a translation into one of these languages.

SHIP PARTICULARS

At least the following details should be included:

- Ships’ name;
- Flag;
- Port of registry;
- Gross Tonnage;
- IMO number*;

* In accordance with resolution A.800(15), IMO Ship Identification Number Scheme.
Length (BP);
Beam;
International call sign;
Deepest ballast drafts (normal and heavy weather);
Total ballast capacity of the ship in cubic meters and other units if applicable to the ship;
A brief description of the main ballast water management method(s) used on the ship; and
Identification (rank) of the appointed ballast water management officer.

INDEX

An index of sections should be included to reference the content of the Plan.

PURPOSE

Should contain a brief introduction for the ship’s crew, explaining the need for ballast water management, and the importance of accurate record keeping.

PLANS/DRAWINGS OF THE BALLAST SYSTEM

Plans or drawings of the ballast system for example:

1) ballast tank arrangement;
2) ballast capacity plan;
3) a ballast water piping and pumping arrangement, including air pipes and sounding arrangements;
4) ballast water pump capacities;
5) the ballast water management system used onboard, with references to detailed operational and maintenance manuals held on board;
6) installed ballast water treatment systems; and
7) a plan and profile of the ship, or a schematic drawing of the ballast arrangement.

DESCRIPTION OF THE BALLAST SYSTEM

A description of the ballast system.

BALLAST WATER SAMPLING POINTS

Lists and/or diagrams indicating the location of sampling and access points in pipelines and ballast water tanks.

A note that sampling of ballast water is primarily a matter for the authorized authority, and there is unlikely to be any need for crew members to take samples except at the express request, and under the supervision, of the authorized authority.

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OPERATION OF THE BALLAST WATER MANAGEMENT SYSTEM

A detailed description of the operation of the Ballast Water Management System(s) used on board.

Information on general ballast water management precautionary practices.

SAFETY PROCEDURES FOR THE SHIP AND THE CREW

Details of specific safety aspects of the ballast water management system used.

OPERATIONAL OR SAFETY RESTRICTIONS

Details of specific operational or safety restrictions including those associated with the management system which affects the ship and or the crew including reference to procedures for safe tank entry.

DESCRIPTION OF THE METHOD(S) USED ON BOARD FOR BALLAST WATER MANAGEMENT AND SEDIMENT CONTROL

Details of the method(s) used on board for the management of ballast and for sediment control including step-by-step operational procedures.

PROCEDURES FOR THE DISPOSAL OF SEDIMENTS

Procedures for the disposal of sediments at sea and to shore.

METHODS OF COMMUNICATION

Details of the procedures for co-ordinating the discharge of ballast in waters of a coastal State.

DUTIES OF THE BALLAST WATER MANAGEMENT OFFICER

Outline of the duties of the designated officer.

RECORDING REQUIREMENTS

Details of the record-keeping requirements of the Convention.

CREW TRAINING AND FAMILIARIZATION

Information on the provision of crew training and familiarization.

EXEMPTIONS

Details of any exemptions granted to the ship under Regulation A-4.

APPROVING AUTHORITY

Details and stamp of approving authority.

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FORM OF BALLAST WATER RECORD BOOK

FORM OF BALLAST WATER RECORD BOOK INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS’ BALLAST WATER AND SEDIMENTS

Period From: ........................................................... To: ..........................................................
Name of Ship  ................................................................................................................................
IMO number  ...........................................................
Gross tonnage  ...........................................................
Flag  ........................................................................
Total Ballast Water capacity (in cubic metres) .................

The ship is provided with a Ballast Water Management plan

Diagram of ship indicating ballast tanks:

1 Introduction

In accordance with regulation B2 of the Annex to the International Convention for the Control and Management of Ships’ Ballast Water and Sediments, a record is to be kept of each Ballast Water operation. This includes discharges at sea and to reception facilities.

2 Ballast Water and Ballast Water Management

“Ballast Water” means water with its suspended matter taken on board a ship to control trim, list, draught, stability, or stresses of a ship. Management of Ballast Water shall be in accordance with an approved Ballast Water Management plan and taking into account Guidelines developed by the Organization.

3 Entries in the Ballast Water Record Book

Entries in the Ballast Water record book shall be made on each of the following occasions:

3.1 When Ballast Water is taken on board:
   .1 date, time and location port or facility of uptake (port or lat/long), depth if outside port
   .2 estimated volume of uptake in cubic metres
   .3 signature of the officer in charge of the operation.

3.2 Whenever Ballast Water is circulated or treated for Ballast Water Management purposes:
   .1 date and time of operation
   .2 estimated volume circulated or treated (in cubic metres)

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Refer to the Guidelines for the control and management of ships’ ballast water to minimize the transfer of harmful aquatic organisms and pathogens adopted by the Organization by resolution A.868(20).
When Ballast Water is discharged into the sea:

1. date, time and location port or facility of discharge (port or lat/long)
2. estimated volume discharged in cubic metres plus remaining volume in cubic metres
3. whether approved Ballast Water Management plan had been implemented prior to discharge
4. signature of the officer in charge of the operation.

When Ballast Water is discharged to a reception facility:

1. date, time, and location of uptake
2. date, time, and location of discharge
3. port or facility
4. estimated volume discharged or taken up, in cubic metres
5. whether approved Ballast Water Management plan had been implemented prior to discharge
6. signature of officer in charge of the operation.

Accidental or other exceptional uptake or discharges of Ballast Water:

1. date and time of occurrence
2. port or position of the ship at time of occurrence.
3. estimated volume of Ballast Water discharged
4. circumstances of uptake, discharge, escape or loss, the reason therefore and general remarks.
5. whether approved Ballast Water Management plan had been implemented prior to discharge
6. signature of officer in charge of the operation.

Additional operational procedure and general remarks

4 Volume of Ballast Water

The volume of Ballast Water on board should be estimated in cubic metres. The Ballast Water record book contains many references to estimated volume of Ballast Water. It is recognised that the accuracy of estimating volumes of ballast is left to interpretation.
# RECORD OF BALLAST WATER OPERATIONS

SAMPLE BALLAST WATER RECORD BOOK PAGE

Name of Ship: ..............................................................

Distinctive number or letters ........................................

<table>
<thead>
<tr>
<th>Date</th>
<th>Item (number)</th>
<th>Record of operations/signature of officers in charge</th>
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Signature of Master ..................................................