



Ballast Water Management Surveyor Guidance

An outline of Maritime NZ requirements of Surveyors for the purposes of Ballast Water Management

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1. Overview

The International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 is drafted to prevent, minimise and ultimately eliminate the risk to the environment, human health, property and resources arising from the transfer of harmful aquatic organisms and pathogens through the control and management of ships' ballast water and sediment.

To ensure that ballast water doesn't contain organisms that could pose a risk to eco systems, human health, property or resources, the Convention sets discharge standards for ships discharging ballast water. These standards include an approval process for a Ballast Water Management Plan (BWMP), approved Ballast Water Management Systems and Ballast Water standards for exchange or treatment.

Part 300 requires a ship to have a ballast water management plan approved, certain ships to be surveyed to verify the arrangements on the ship comply with the ballast water management plan, a decision on approval of the ballast water management system and the associated issuance of a Ballast Water Management Approval or International Ballast Water Management Certificate (IBWMC) for a ship.

Maritime NZ sets out the process below for ship operators to follow in order to achieve certification of their Ballast Water Management System, and the role of a surveyor in this process.

Ships that fall under the Convention and Part 300 due to carrying non-permanent ballast water and which undertake international voyages, are required to have an approved Ballast Water Management Plan (BWMP) on board at all times.

This needs to be available to crew to refer to when conducting ballast water discharges and also available for inspection by port and flag State administrations.

The plan must contain operational processes and procedures, guidance for crew about record keeping requirements based on the ship's Ballast Water Record Book (BWRB), and must include any exemptions that apply to the ship. The plan also needs to outline provisions for crew training and familiarisation, including explaining to crew the need for ballast water management and record keeping.

The plan should have a list or diagrams showing the location of sampling and access points in pipelines and ballast water tanks, to enable the crew on board to assist any authorised officers of a party that needs to collect samples of ballast water.

The BWMP is approved by Maritime NZ or an RO as part of the BWM application process, and **must be completed prior to a survey being undertaken and the subsequent application for a Ballast Water Management approval.**

For ships of 400 GT and over an operator will need to use a surveyor from a Recognised Organisation or a surveyor with a specific recognition under Part 300 of the marine protection rules.

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.

1. Overview (continued)

Once the BWMP is approved a surveyor will be approached to undertake a survey addressing the points raised below in this guidance. When the surveyor is satisfied that the ship's arrangements reflect the approved BWMP the surveyor will provide their survey report and the relevant checklist to the operator. The operator will include these documents in their application to Maritime NZ for a ballast water system approval and the issuance of an associated document – IBWMC (ships of 400 GT or over) or BWM Approval (ships of less than 400 GT).

2. Discharge standard requirements

Marine Protection Rules Part 300.120 - Exchange standard

The exchange standard is the initial standard that applies to ships constructed before 8 September 2017. This standard requires a ship to exchange its entire volume of ballast water with a minimum of 95% volumetric exchange. From 8 September 2024, all ships must meet the performance standard in Part 300.140.

For ships that cannot empty a ballast tank on a journey, alternative methods are available, including the pumping through method. For this method, a minimum of three times the volume of each Ballast Water (BW) tank needs to be transferred through the tank to achieve a minimum equivalent to 95% exchange standard.

Marine Protection Rules Part 300.140 – Ballast water performance standard

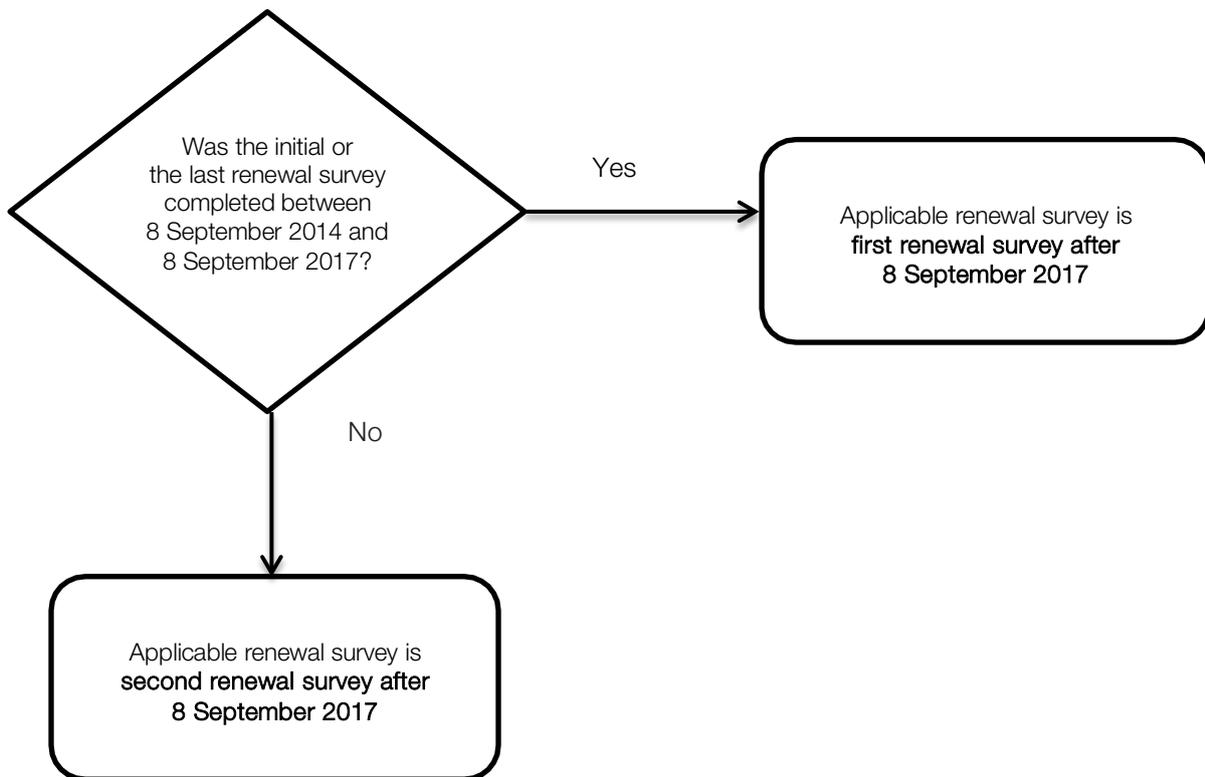
This standard requires the BW discharge to be treated by type approved equipment prior to discharge and has limits on the number of organisms in various size ranges and colony forming units of specified bacteria. This is a higher standard when compared to the exchange standard.

Transitional provisions for meeting ballast water 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.

2. Discharge standard requirements (continued)



Ships that undertake occasional voyages for the purpose of maintenance or repair should review IMO guidance (BWM.2/Circ.52/Rev.1) 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).

Type approved ballast water treatment equipment

The ballast water treatment equipment used onboard the ship must be on the International Maritime Organization's (IMO) list of type approved systems.

2. Discharge standard requirements (continued)

Alternative ballast water management systems

For ships' using prototype ballast water treatment technologies that have been approved by the IMO, and Maritime NZ under Part 300.160, the ballast water performance standard shall not apply until five years from the date on which the ship would otherwise be required to comply or from the date of installation of this technology. Throughout this period, the shipowner and the master of a ship must ensure that the ship conducts ballast water management in accordance with the requirements of the relevant test programme.

Other methods approved in principle by the International Maritime Organization

Ships may elect to meet the performance standard by using 'Other Methods' approved in principle by the IMO. At the time of writing, although Other Methods have been discussed at IMO, none have been approved.

Exemption from country which ship is entering

A ship may be granted an exemption from compliance with Ballast Water Management by the government of a State party to the Convention in the waters under its jurisdiction. Before a New Zealand ship can get an exemption from Part 300 requirements, it must provide evidence from the State into whose waters it will be sailing that they have exempted the ship from the Convention.

Exemptions can be granted for a determined period, not exceeding five years, to certain ships and according to certain conditions, including that:

- a) the ship operates exclusively between specified ports or locations,
- b) the ship takes up only ballast water coming from those specified ports or locations, and
- c) a risk assessment has to be performed prior to the exemption request.

3. Guidance when completing checklist

Maritime NZ requirements of a surveyor for confirming compliance under all discharge standards

	Ballast Water Management items for survey	Verification
1	Pumping capacity	Survey report confirms that pumping capacity in the BWMP is accurate relative to the pumps on the ship.
2	Ballast water record book	A ballast water record book is present aboard the ship and specifies the officer in charge of Ballast Water operations.
3	Cleaning	Maintenance schedule in place for regular cleaning of Ballast Water tanks.
4	Piping diagrams/photographs	Evidence seen of piping diagrams and photographs showing how BWTE operates on board ship.
5	Survey plan addresses ballast water tanks (cleanliness, safety, stability and structural integrity)	Plan specifically addresses ballast water cleaning etc.
6	Confined space entry reminder (rules, plan, crew awareness)	Noted in plan that ballast tanks are a confined space, therefore safety procedures must be followed before manned entry.

3. Guidance when completing checklist (continued)

Additional elements to check under the performance standard

	Ballast Water Treatment Equipment (BWTE) items for survey	Element verification
1	A copy of the Type Approval Certificate of BWTE.	The BWTE must be type approved as per the IMO list of approved systems.
2	A statement from the Administration, party to the Convention that type approved the BWTE, or from a laboratory authorised by that Administration, to confirm that the electrical and electronic components of the BWTE have been type-tested in accordance with the specifications for environmental testing contained in Part 3 of the annex to the IMO G8 guidance.	Detailed within installation report/specifications.
3	Equipment manuals for major components of the BWTE.	Contained on board within an easily assessable place for crew to find.
4	An operations and technical manual for the BWTE, approved by the Administration party to the Convention that type approved the BWTE, containing a technical description of the BWTE, operational and maintenance procedures, and backup procedures in case of equipment malfunction.	Contained on board within an easily assessable place for crew to locate and follow, and understood by crew members responsible for Ballast Water on board.
5	Installation specifications – installation has been completed as per manufacturer specifications by an installer approved by the manufacturer.	Detailed within installation report supplied by installer. Surveyor confirms installer is approved.
6	Installation commissioning procedures.	Detailed within installation report supplied by installer.
7	Initial calibration procedures.	Detailed within installation report supplied by installer.
8	The BWTE installation has been carried out in accordance with the technical installation specification. This includes notes of electrical work and/or chemicals on board.	Diagrams within plan (including electrical) match what is sighted aboard ship. Surveyor report to contain piping diagrams and photographs, noting any variations.
9	The BWTE conforms with the Type Approval Certificate for the BWTE issued by the Administration party to the Convention that type approved the BWTE or its representative.	Surveyor confirms that the listed system on the type approval certificate is the system installed on the ship.

3. Guidance when completing checklist (continued)

10	The installation of the BWTE has been carried out in accordance with the manufacturer's equipment specification.	Photographs/diagrams accompany the surveyor's report showing the specification and actual installed system match.
11	Any operational inlets and outlets are located in the positions indicated on the drawing of the pumping and piping arrangements.	Photographs accompany the surveyors report showing the piping and pumping arrangements.
12	The workmanship of the installation is satisfactory and, in particular, that any bulkhead penetrations or penetrations of the ballast system piping are to the relevant approved standards.	Photographs accompany the surveyors report showing the piping, pumping arrangements, particularly bulkhead penetrations.
13	The control and monitoring equipment operates correctly as per operational manual.	Testing completed as per manufacturers suggested testing regime and recorded appropriately. Surveyor is required to witness this and then verify system has recorded correctly and noted results, including any variations from the manual.
14	Spare parts – including storage and access.	List to be held on board ship noting all spare parts held. Inventory maintained, surveyor to sight spare parts and ensure match inventory list.
15	Maintenance schedule and plan for ballast water equipment.	Schedule held for cleaning and maintenance of ballast water equipment, records kept of when and who has completed cleaning and maintenance.
16	Sampling facilities are provided in order to collect representative samples of the ship's ballast water.	Photographs/diagrams accompany the surveyor's report showing the sampling points.
17	Ballast water management recording devices are operational and there is a sufficient supply of consumables for the recording devices on board.	Photographs/diagrams accompany the surveyor's report showing where the recording devices are located, and the supply of consumables.
18	If using active substances as part of BWTE, sufficient supplies of the substances are available on board.	Photographs of the supply of active substances stored onboard.
19	If using active substances, dosage instructions are available on board.	Copy sighted of dosage instructions contained within BWTE manufacturer's operation manual etc.
