

# **MODEL BALLAST WATER MANAGEMENT PLAN**

To meet the recommendations of the

**INTERNATIONAL MARITIME ORGANIZATION  
ASSEMBLY RESOLUTION A.868(20)**

**GUIDELINES FOR THE CONTROL AND MANAGEMENT OF SHIPS'  
BALLAST WATER TO MINIMISE THE TRANSFER OF  
HARMFUL AQUATIC ORGANISMS AND PATHOGENS**

adopted on 27th November 1997

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**CAUTION**

The function of the Ballast Water Management Plan is to assist in complying with quarantine measures intended to minimise the risk of transplanting harmful aquatic organisms and pathogens from ships' ballast water and associated sediments, while maintaining ship safety.

As part of this function the plan will provide information to quarantine officers who wish to learn about a ship's ballast handling system, or to confirm that ballast management has been effectively planned.

The plan should not be used or regarded as a guide to ballasting. Training and shipboard operational practices should already be well established.

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**SECTION 1**

**SHIP PARTICULARS**

SHIP'S NAME	SHIP TYPE
PORT OF REGISTRY	OWNER
INTERNATIONAL CALL SIGN	
FLAG	GROSS TONNAGE
IMO NUMBER	
DIMENSIONS:	

TOTAL WATER BALLAST CAPACITY  
TOTAL NUMBER OF SEGREGATED BALLAST TANKS ON BOARD  
UNITS USED FOR BALLAST MEASUREMENT (cubic metres, long tons)  
LIST OF WATER BALLAST TANKS, AND CAPACITY OF EACH  
APPOINTED BALLAST WATER MANAGEMENT OFFICER  
[designation/rank of officer]

OTHER SHIP SPECIFIC INFORMATION CONSIDERED RELEVANT

This plan should be kept available for inspection on request by a port state control officer or by a port state quarantine officer.

## **SECTION 2**

### **EXPLANATION OF THE NEED FOR BALLAST WATER MANAGEMENT, AND FOR REPORTING TO PORT STATES**

#### **Introduction**

Studies carried out in several countries have shown that many species of bacteria, plants and animals can survive in a viable form in the ballast water and sediment carried in ships, even after journeys of several weeks duration. Subsequent discharge of ballast water or sediment into the waters of port states may result in the establishment of colonies of harmful species and pathogens which can seriously upset the existing ecological balance. Although other methods have been identified by which organisms are transferred between geographically separated sea areas, ballast water discharge from ships appears to have been prominent among those identified.

The potential for ballast water discharge to cause harm has been recognised not only by the International Maritime Organization (IMO), but also by the World Health Organization which is concerned about the role of ballast water as a medium for the spreading of epidemic disease bacteria.

#### **Requirements**

Some states have established controls on the discharge of ships' ballast water that will minimise the potential for colonisation of their rivers and estuaries by non-native species. The preferred option is mid-ocean ballast water exchange prior to arrival. Accordingly, the countries most concerned have promulgated advice to ships for ballast management, together with a request for their co-operation in applying the techniques voluntarily. Standard procedures have been developed that will be accepted by quarantine authorities as achieving the level of acceptability desired by the port state.

#### **Conflict with safety**

Unless applied carefully some of the measures being urged for ballast management can affect a ship's safety, either by creating forces within the hull that are greater than the design parameters, or by compromising the stability of the ship. It is because of concern about this that the IMO became involved in what would otherwise be a purely quarantine matter. It has been recognised by governments and the shipping industry that individual countries' needs should be harmonised with the greater need to ensure the safety of ships, their crews and passengers.

IMO recommends that each ship should be provided with a Ballast Water Management Plan, detailing the way that the ship can comply with any measures demanded by a port state. Once it has been established that the management of ballast is necessary to meet the quarantine requirements of a port state, preparation for it should be treated with the same seriousness as preparation of a cargo plan. All concerned with the operation and safe passage of the ship can thereby be

assured that they are both protecting the marine environment and ensuring the safety of the ship and crew.

### **Summary of records required**

To be able to demonstrate at the arrival port that the correct measures have been completed, it will be necessary to maintain a full and accurate ballast log. A suitable outline for such a log is provided in Section 9. Even if a ship is not trading in an area where ballast water information is required, it may later prove worthwhile to have a history of what water has been carried.

### **Reporting to port states**

Several countries have become aware of the potential, through discharge of ships' ballast water, for the transfer into their coastal areas of what are found to be harmful aquatic organisms. Governments have recognised that, before devising mandatory controls on ships, it is necessary to know the scale of what has, until very recently, been an unrecorded procedure.

Concerned countries have therefore introduced a requirement which, though often differing in detail, generally calls for ships to report in advance, to the national monitoring authority, how much ballast water will be on board on arrival, where it was taken on board, and whether a ballast management procedure has been followed. In most cases it is mandatory to make the report, even though the actual ballast exchange in mid-ocean (or other management procedure) remains voluntary.

To assist in this regard, wherever possible the plan contains the format of the relevant national reporting forms.

The forms can be found in section 11 of this model plan.

When preparing a ballast water management plan for an individual ship, it may be found possible and convenient to pre-format the reporting forms to suit the ship, so that work for the crew is reduced and opportunities for mistakes in basic details are minimised. For instance, all permanent information such as the ship's name, IMO number, gross tonnage, owner, total ballast capacity, etc., will remain the same for each voyage. Any list of tanks could also be customised to match the ship exactly. Such preparation will ensure that none are missed inadvertently, and will prevent misunderstandings due to personal interpretations.

### SECTION 3

## BALLAST WATER ARRANGEMENTS

### **Tank arrangement, and tank capacities**

A plan and profile of the ship, or a schematic drawing of the ballast tank arrangement will help a quarantine officer who is unfamiliar with the ship.

DRAWING HERE

A table should be produced, showing the capacity of each tank and the pumps available to be used on that tank. A second table showing the rated capacity of the pumps should be available for reference. Example formats are shown below.

<b>Tank</b>	<b>Capacity</b>	<b>Pumps available</b>

<b>Pump</b>	<b>Rated Capacity</b>

### **Piping and pumping arrangements**

Standard pumping plans of the ballast system, and layout diagrams of the pumproom or ballast control system should be included.

### **Example ballast arrangements for given conditions**

Traditional block diagrams of the vessel showing the ballast arrangements for different conditions are recommended.

## **SECTION 4**

### **SAFETY CONSIDERATIONS**

The IMO Resolution (reproduced in Section ) includes guidance on safety aspects of ballast water exchange at sea. The safety points outlined below are intended to emphasise that the consequences of an inadvertent error at sea can be more significant than the same error made in port. Ballast water exchange at sea is a comparatively new development, and a sense of familiarity with the mechanics of ballasting should not be allowed to induce complacency in this new procedure.

#### **Conditions in which ballast water exchange at sea is not to be undertaken**



## **SECTION 5**

### **PROCEDURES FOR MANAGING BALLAST WATER**

A ballast handling plan for a ballast voyage should be prepared in advance, in a similar manner to the preparation of a cargo plan for a loaded voyage, and with the same degree of thoroughness. This pre-planning is necessary in order to maintain safety in case compliance with ballast exchange or other ballast water treatment or control options is required.

The safety information in Section 4 should be taken into account when preparing the voyage plan.

This section gives guidance on ballast handling procedures to be followed at sea.

If there are no safe options, either under all circumstances or in certain conditions, the restrictions should be stated here. Such a statement will assist a master when responding to enquiries from a quarantine officer.

#### **INFORMING SHORE MANAGEMENT**

#### **SEDIMENT REMOVAL OR REDUCTION**

Where practical, cleaning of the ballast tanks to remove sediments should be undertaken.

#### **RETENTION OF BALLAST ON BOARD**

#### **WATER TREATMENT**

#### **EXCHANGE AT SEA**

## **Sequential Method**

The following text may be adapted to suit the company's preferred terminology and methods. The style and contents of the table must be altered to reflect the requirements of a particular ship.

The following table describes a safe sequence for the exchange of ballast water using the empty-then-refill procedure, known as the sequential method. The process requires the removal of very large weights from the ship in a dynamic situation, and then their replacement. This is a new procedure, and a sense of familiarity with the mechanics of ballasting in port should not be allowed to induce complacency.

The table indicates the status of the ballast water in every tank at the start of each step, and indicates an assumed weight of fuel and domestic drinking water [aft of the engine room bulkhead], estimated draughts, bending moments and shear forces. The action to be taken and tanks involved in each step are then specified.

It will be noted that the original condition is restored after each pair of steps. A positive decision should be made at that time, taking account of the ship's position, weather forecast, machinery performance and degree of crew fatigue, before proceeding to the next pair of steps. If any factors are considered unfavourable the ballast exchange should be suspended or halted.

Heeling effects due to asymmetrical emptying or filling have been taken into account so that all steps represent upright conditions. Actual operations must be managed so that lists do not develop during pumping.

The steps in the table meet trim and draught requirements of propeller and rudder immersion, to avoid any possibility of slamming while changing ballast, and to maintain the bridge visibility within tolerable limits.

It is as important to avoid underpressure in a tank due to emptying, as it is to avoid overpressure when filling. The consequences of bulkhead damage, or even tank collapse, at sea will be even more significant than in port.

Each step has been checked for conformity with strength and stress limitations. Checks have been made that the minimum intact stability requirements of the ship are met at every stage, and that the allowable limits for bending and twisting moments are not exceeded. Each step is therefore safe for the ship at sea in fair weather. The figure given under bending moments is the percentage of the maximum allowable at the end of each step, before commencing the next step.

## EXAMPLE FORMAT

This is a simplified form of an actual instruction to a ship.  
It is included as a guide to the style of instructions needed

TANKS								EST. DRAUGH	BM	SF
FP	No 1 P S	No 2 P S	No 3 P S	No 4 P S	No 5 P S	AP	FO FW	F A	%	%
F	F F	F F	F F	F F	F F	F	500	9.0 9.5	30	74
<b>STEP 1: Pump out 1 (P); 5 (P) and 3 (S)</b>										
F	* F	F F	F *	F F	* F	F	500	8.2 9.0	60	88
<b>STEP 2: Refill 1 (P); 5 (P) and 3 (S) to original level</b>										
F	C F	F F	F C	F F	C F	F	500	9.0 9.5	30	74
<b>STEP 3: Pump out 1(S), 5 (S) and 3 (P)</b>										
F	C *	F F	* C	F F	C *	F	500	8.2 9.0	60	88
<b>STEP 4: Refill 1 (S), 5 (S) and 3 (P) to original level</b>										
F	C C	F F	C C	F F	C C	F	500	9.0 9.5	30	74
<b>STEP 5: Pump out 2 (P); 4 (S) and AP. When very low, run 2 (S) down to about 2.00 metres ullage to counteract tendency for starboard list due to difference in tank size. Drain 2 (P) and 4 (S). After Peak will need careful attention to keep aligned.</b>										
F	C C	* S	C C	F *	C C	*	500	8.4 8.9	65	90
<b>STEP 6: Refill 2 (P); 4 (S) and AP, keeping ship upright by ensuring 2 (P) trails 4 (S), and as level rises stop 2 (P) at 2.00 metre ullage. 4 (S) to be as original level.</b>										
F	C C	S S	C C	F C	C C	C	500	9.0 9.5	30	74
<b>STEP 7: Pump out 2 (S) and 4 (P). When very low run 2(P) down to about 3.5 metres ullage to counteract tendency to list to port due to difference in tank size. Drain 2 (S) and 4 (P).</b>										
F	C C	S *	C C	* C	C C	C	500	8.4 9.0	70	92
<b>STEP 8: Refill 2 (S) and 4 (P) to original levels. Ensure 2 (S) trails 4 (P) to keep ship upright, and as levels rise, complete refilling of 2 (P) to original level.</b>										
F	C C	C C	C C	C C	C C	C	500	9.0 9.5	30	74
<b>STEP 9: Pump out FP</b>										
*	C C	C C	C C	C C	C C	C	500	8.5 9.5	40	80
<b>STEP 10: Refill FP to original level</b>										
C	C C	C C	C C	C C	C C	C	500	9.0 9.5	30	74

Notes:

1. Conditions after steps 2, 4, 8 and 10 are the same, and after step 6 the condition is very nearly so.
  2. Propeller tip immersion is 10.00 metres
  3. Top of bow thruster tunnel is 5.6 metres
- F indicates full,                      SF is shear forces  
S indicates slack,                      BM is bending moments

\* indicates empty,  
C indicates changed.

FO is fuel oil and diesel oil  
FW is fresh water

## **Flow-through Method**

The flow-through method, whereby tanks are overfilled by pumping in additional water, has the advantage that it can be used in weather conditions which would be marginal for use of the sequential method, since there is little change to the condition of the ship. However, the flow-through method introduces certain other risks and problems which must be considered before using this procedure. Refer also to [Section 4], "Safety Considerations".

### **Safety issues related to the Flow-through Method**

The parameters used when the ship is designed always take account of storm conditions and the water on deck which results. Therefore, even at maximum pumping rates, any accumulation of water on deck will be insufficient to affect stability.

Research has established that it is necessary to pump in three times the volume of the tank to achieve a 95% change of water. For the record, pumping in only once the volume of the tank produces a 63% exchange, twice the volume produces 86% exchange, while four times the volume produces a 98% water exchange.

The table below shows the time needed for the required amount of water to be pumped into each ballast tank to achieve the desired percentage change of water, and the pumps to be used.

A step by step procedure follows, listing the order in which tanks are to be processed.

After each step, a positive decision should be made, taking account of the ship's position, weather forecast, machinery performance and degree of crew fatigue, before proceeding to the next step. If any factors are considered unfavourable the ballast exchange should be suspended or halted.

<b>Step</b>	<b>Tank</b>	<b>Capacity (tonnes)</b>	<b>Pumps</b>	<b>Time for 3 Exchanges</b>

## **SECTION 6**

### **BALLAST WATER SAMPLING POINTS**

This section is confined to identifying sampling points

There is unlikely to be any need for crewmembers to take samples except at the express request, and under the supervision, of a quarantine officer.

The lists or diagrams below indicate sampling and access points in pipelines and tanks, so that crewmembers can quickly assist quarantine officers who wish to obtain samples.

Quarantine officers must be advised of all safety procedures to be observed when entering enclosed spaces.

## **SECTION 7**

### **CREW TRAINING AND FAMILIARISATION**

## **SECTION 8**

### **DUTIES OF APPOINTED BALLAST WATER MANAGEMENT OFFICER**

**Appointed Ballast Water Management Officer  
[DESIGNATION OR RANK OF OFFICER]**

Duties of the appointed officer in charge of ballast water management

1. Ensure that the ballast water treatment or exchange follows procedures in the ballast water management plan.
2. [ Inform the owner or operator by an agreed procedure when commencing ballast water exchange, and when it is completed. ]
3. Prepare the ballast water declaration form prior to arrival in port.
4. Be available to assist the port state control or quarantine officers for any sampling that may need to be undertaken.
5. Maintain the ballast water handling log.
- 6.



## **SECTION 9**

### **BALLAST WATER REPORTING FORM AND HANDLING LOG**

#### 1. Format for ballast water reporting form

Guidelines for completing the ballast water reporting form

This form is an example developed in IMO, to serve as a guide for use when reporting to a national authority that requests information in advance. To avoid misunderstandings, some guidance for completing it follow on the page opposite. It should be noted that question 3, "Total number of tanks on board" refers only to the total number of segregated ballast tanks.

Care should be taken before using this general form, that the country being approached does not have its own form for use when reporting.

As explained in Section 2, it may be found convenient to pre-format all reporting forms to contain permanent information such as ship's name, IMO number, total number of tanks on board, total ballast capacity, etc.. The list of tanks can be tailored to match the ship exactly. This will help to avoid inadvertent errors, and the clarity of presentation will be welcome to quarantine officers.

#### 2. Format for ballast water handling log

Record of loading and discharging ballast

Narrative pages for recording unusual events

These two forms have been created as a guide for recording the sort of information often requested by quarantine officers who wish to learn about the source of the ballast water on board.

Even if the ship is not currently trading in an area where ballast water information is required to be reported, it may later prove worthwhile to have a history of what water has been carried.

## BALLAST WATER REPORTING FORM

(To be provided to the Port State Authority upon request)

### 1. SHIP INFORMATION

Ship's Name:	Type:	IMO Number:	Specify Units: M <sup>3</sup> , MT, LT, ST
Owner:	Gross Tonnage:	Call Sign:	Total Ballast Water on Board:
Flag:	Arrival Date:	Agent:	Total Ballast Water Capacity:
Last Port and Country:	Arrival Port:		
Next Port and Country:			

### 2. BALLAST WATER

**3. BALLAST WATER TANKS** Ballast Water Management Plan on board? YES NO Management Plan Implemented? YES NO  
 Total number of ballast tanks on board: \_\_\_\_\_ No. of tanks in ballast: \_\_\_\_\_ IF NONE IN BALLAST GO TO No. 5.  
 No. of tanks exchanged: \_\_\_\_\_ No. of tanks not exchanged: \_\_\_\_\_

### 4. BALLAST WATER HISTORY: RECORD ALL TANKS THAT WILL BE DEBALLASTED IN PORT STATE OF ARRIVAL; IF NONE GO TO No. 5.

Tanks/ Holds <small>(List multiple sources per tank separately)</small>	BALLAST WATER SOURCE				BALLAST WATER EXCHANGE <small>Circle one: Empty/Refill or Flow Through</small>					BALLAST WATER DISCHARGE			
	DATE DDMMYY	Port or Lat/Long	Volume (units)	Temp (units)	DATE DDMMYY	Endpoint Lat/Long.	Volume (units)	% Exch.	Sea Hgt. (m)	DATE DDMMYY	Port or Lat/Long	Volume (units)	Salinity (units)

**Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP; Double Bottom = DB; Wing = WT; Topside = TS; Cargo Hold = CH; Other = O**

IF EXCHANGES WERE NOT CONDUCTED, STATE OTHER CONTROL ACTION(S) TAKEN: \_\_\_\_\_

IF NONE STATE REASON WHY NOT: \_\_\_\_\_

**5: IMO BALLAST WATER GUIDELINES ON BOARD (RES. A.868(20))?** YES NO

**RESPONSIBLE OFFICER'S NAME AND TITLE (PRINTED) AND SIGNATURE:** \_\_\_\_\_

# GUIDELINES FOR COMPLETING THE BALLAST WATER REPORTING FORM

## SECTION 1: SHIP INFORMATION

**Ship's Name:** Print the name of the ship.

**Owner:** The registered owners or operators of the ship.

**Flag:** Country of the port of registry.

**Last port and country:** Last port and country at which the ship called before arrival in the current port - no abbreviations, please.

**Next port and country:** Next port and country at which the ship will call, upon departure from the current port - no abbreviations, please.

**Type:** The ship type is .....

**GT:** Gross tonnage.

**Arrival Date:** Arrival date at current port. Please use the European date format (DDMMYY)

**IMO Number:** Identification number of the ship used by the International Maritime Organization is .....

**Call Sign:** Official call sign is .....

**Agent:** Agent used for this voyage.

**Arrival Port:** This is the current port. No abbreviations, please.

## SECTION 2: BALLAST WATER

(Note: Segregated ballast water = clean, non-oily ballast)

**Total ballast water on board:** Total segregated ballast water upon arrival at current port - with units.

**Total ballast water capacity:** Total volume of all ballastable tanks or holds - with units.

## SECTION 3: BALLAST WATER TANKS

Count all tanks and holds separately (e.g. port and starboard tanks should be counted separately)

**Total No. of Tanks on board:** ( ) tanks and holds can carry segregated ballast water.

**Ballast Water Management Plan on board?:** Do you have a ballast water management plan, specific to your ship, onboard? Circle Yes or No.

**Management Plan Implemented?:** Do you follow the above plan? Circle Yes or No.

**No. of Tanks in Ballast:** Number of segregated ballast water tanks and holds with ballast at the start of the

voyage to the current port. If you have no ballast water on board, go to section 5.

**No. of Tanks Exchanged:** This refers only to tanks and holds with ballast at the start of the voyage to the current port.

**No. of Tanks Not Exchanged:** This refers only to tanks and holds with ballast at the start of the voyage to the current port.

## SECTION 4: BALLAST WATER HISTORY

**BW Source:** Please list all tanks and holds that you have discharged or plan to discharge in this port. Carefully write out, or use codes listed below the table. Follow each tank across the page, listing all source(s), exchange events, and/or discharge events separately. If the ballast water history is identical (i.e. the same source, exchange and discharge dates and locations), sets of tanks can be combined (example: wing tank 1 with wing tank 2, both water from Belgium, exchanged 02.11.97, mid ocean). Additional pages to include the arrival date, ship's name and IMO number at the top.

**Date:** Date of ballast water uptake. Use European format (DDMMYY).

**Port or Latitude/Longitude:** Location of ballast water uptake.

**Volume:** Volume of ballast water uptake, with units.

**Temperature:** Water temperature at time of ballast water uptake, in degrees centigrade (Celsius).

**BW Exchange:** Indicate Exchange Method: Circle empty/refill or flow through.

**Date:** Date of ballast water exchange. Use European format (DDMMYY).

**Endpoint or Latitude/Longitude:** Location of ballast water exchange. If it occurred over an extended distance, list the end point latitude and longitude.

**Volume:** Volume of ballast water exchanged, with units.

**Percentage exchanged:** Percentage of ballast water exchanged. Calculate this by dividing the number of units of water exchanged by the original volume of ballast water in the tank. If necessary, estimate this based on pump rate. (Note: For effective flow-through exchange this value should be at least 300%).

**Sea Height (m):** Record the sea height in metres at the time of the ballast exchange (Note: this is the combined height of the wind seas and swell, measured from crest to trough. It does not refer to the depth).

## **BW Discharge:**

**Date:** Date of ballast water discharge. Use European format (DDMMYY).

**Port or Latitude/Longitude:** Location of ballast water discharge, no abbreviations for ports.

**Volume:** Volume of ballast water discharged, with units.

**Salinity:** Record salinity of ballast water at the time of discharge, with units, (i.e. specific gravity (sg) or parts per thousand (ppt)).

**If exchanges were not conducted, state other control action(s) taken:** If exchanges were not made on all tanks and holds to be discharged, what other actions were taken? E.g. transfer of water to a landbased holding facility, or other approved treatment.

**If none, state reasons why not:** List specific reasons why ballast exchange was not done. This applies to all tanks and holds being discharged.

## **SECTION 5:**

**IMO Ballast Water Guidelines On Board?:** Do you have IMO Resolution A.868(20) on board your ship? Circle Yes or No.

**Responsible Officer's name and title (Printed) and signature:** e.g. the First Mate, Captain, or Chief Engineer must print his name and title and sign the form.





DRAFT 03/02/2006

**SECTION 10**

Guidelines from IMO Resolution A.868(20), and appendices.

This can be copied from the booklet.

**SECTION 11**

**SUMMARIES OF EXISTING NATIONAL, REGIONAL OR LOCAL QUARANTINE REQUIREMENTS FOR BALLAST WATER MANAGEMENT,**

The authors of this model plan have gathered details of as many as possible of the known requirements for ballast management. A notable feature of individual texts is the complex legal format which varies from country to country. The following pages provide extracts in a standard format, and are intended to be a guide to seamen. In case of doubt, the original document should always be consulted.

Owners are welcome to reproduce these abstracts as desired, but no responsibility for errors or omissions can be accepted by the authors.

The recommendations of IMO are given in section 8.1 of the guidelines

Whenever possible, a copy of a specific reporting form has been included. As suggested in previous sections, it may be found convenient to pre-format these forms with known information, both to reduce the work of crewmembers, and to assist quarantine officers who will be receiving many forms.

This section will need to be regularly reviewed and updated, as information becomes available.

**Information shown :**

1. Country or locality
2. Monitoring Authority
3. Ports Affected
4. Ships Affected
5. Implementation
6. Date of Start
7. Methods Acceptable
8. Are unwanted aquatic organisms or pathogens defined ?
9. Are uptake control measures specified ?
10. What sampling is required ?
11. What records are required
12. What procedure must be undertaken if *en route* treatment or exchange is not possible ?
13. What procedures should be undertaken if ballast is found to be unacceptable after testing?
14. Further information.

**DRAFT 03/02/2006**  
**NATIONAL REQUIREMENT**

Country: Australia  
National Monitoring Authority: Australian Quarantine and Inspection Service.  
Ports affected: All  
Ships affected: All ships entering Australian ports from overseas territories. No exceptions specified.  
Implementation Voluntary compliance, but mandatory reporting [using form opposite](#).  
Date of start: 1992

Methods acceptable:

Ballast water exchange in deep ocean areas:

- Tanks to be drained until pump suction is lost.
- Flow through method with 3 x tank volume pumped through.
- Compliance regime in agreement with AQIS

Other in-tank treatment agreed with AQIS (only AQIS heat treatment method approved as yet for cross equatorial voyages. Further information available from AQIS).

Unwanted aquatic organisms or pathogens: Target list available from AQIS. Sediment unwelcome.

Uptake control measures:

Minimise uptake of silt.

Where practicable, avoid taking ballast:

- in shallow water,
- in vicinity of dredging operations,
- where there is a known outbreak of disease communicable through ballast water,
- where phytoplankton blooms are occurring.

Sampling required: Targeted, random and mandatory, under supervision of AQIS officer.

Records required: Record time, location, volume and salinity of all ballast water loaded, exchanged at sea, and discharged.

Procedures if en route management is not possible:

1. Normal discharge based on risk assessment taking into account type of vessel, origin, risk factors at port of entry, eg. fish farms.
2. Withholding discharge until analysis of samples found to be free of harmful organisms.
3. Ship proceed to designated area or open sea to exchange ballast.

Procedure if ballast water found to be unacceptable after sampling:

Ship proceed to designated area or open sea to exchange ballast.

For further information refer to: AQIS Australian Ballast Water Management Guidelines, and IMO Resolution A.868(20)





# BALLAST WATER REPORTING FORM

Commonwealth of Australia *Quarantine Act 1908*

- ◆ TO BE COMPLETED BY ALL VESSELS >25 METRES AND TO BE FORWARDED TO AQIS PRIOR TO VESSEL'S FIRST PORT ARRIVAL.
- ◆ MUST ACCOMPANY AQIS QUARANTINE DECLARATION FOR VESSELS FORM.

**1. VESSEL INFORMATION**

<u>Name:</u>	<u>IMO/Lloyds No.:</u>	<u>Arrival Date:</u>
<u>Type:</u>	<u>GT:</u>	<u>Arrival Port:</u>
<u>Manager:</u>	<u>Agent:</u>	<u>Next Port/s in Australia:</u>

**2. BALLAST WATER:**

<u>Total Ballast on Board (in tonnes):</u>
<u>Total Ballast Capacity (in tonnes):</u>
<u>Total number of ballast tanks:</u>

**3. Last Three (3) Ports and Countries of Ballast Water Uptake: (most recent at (i))**

<u>(i)</u>	<u>Port:</u>	<u>Country:</u>
<u>(ii)</u>	<u>Port:</u>	<u>Country:</u>
<u>(iii)</u>	<u>Port:</u>	<u>Country:</u>

**4. DO YOU INTEND DISCHARGING ANY BALLAST WATER IN AN AUSTRALIAN PORT? (circle correct answer):** YES - refer to questions, 1, 2, 3, 5, 6 & 7. NO - refer to 1, 2, 3 and 7 only

**5. BALLAST WATER HISTORY: RECORD ALL TANKS THAT WILL BE DISCHARGED IN AUSTRALIAN PORTS FOR CURRENT VOYAGE**

Tanks/Holds (List multiple tanks/sources separately)	BW SOURCE			BW EXCHANGE: : Empty/Refill or Flow Through (Circle One)					BW DISCHARGE		
	<u>Date of Uptake</u> DDMMYY	<u>Last Port of Uptake</u> OR <u>Lat. Long.</u>	<u>Vol. Taken Up</u> (units)	<u>Date/s of Exchange</u> DDMMYY	<u>Start Point</u> <u>Lat. Long.</u>	<u>End Point</u> <u>Lat. Long.</u>	<u>Vol. Exchange</u> (Units)	<u>% Exch.</u>	<u>Australian Port/s of Discharge</u>	<u>Date/s of Discharge</u> DDMMYY	<u>Vol. of Discharge</u> (Units)

**BALLAST WATER TANK CODES:** Full Tank = F; Forepeak = FP; Aftpeak = AP; Double Bottom = DB; Wing = WT; Topside = TS; Cargo Hold = CH; Other (specify) = O

NOTE: Ballast Water History of any ballast water tanks for which there is not room to report on above should be completed on another copy of this form.

**6. IF EXCHANGES WERE NOT CONDUCTED IN ANY OF THE TANKS/HOLDS LISTED ABOVE, PLEASE STATE REASON WHY NOT** \_\_\_\_\_

**7. BALLAST WATER MANAGEMENT PLAN ON BOARD? YES / NO (Circle One) HAS THIS BEEN IMPLEMENTED? YES / NO (Circle One)**

**RESPONSIBLE OFFICER'S NAME AND TITLE (PRINTED) AND SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

Note: Masters (or Delegated Officer) who wilfully make a false statement, may be liable to a significant fine and/or imprisonment under Australian Law

**AQIS****INSTRUCTIONS FOR  
COMPLETING THE  
AQIS BALLAST  
WATER REPORTING FORM**AUSTRALIAN QUARANTINE  
AND INSPECTION SERVICE

The AQIS Ballast Water Reporting Form must be completed by all international vessels visiting an Australian first port of call, and must be sent to AQIS with the Quarantine Declaration for Vessels form. The Declaration and Ballast Form must be completed no more than 48 hours and no less than 12 hours before entering an Australian port. Instructions are provided below for each request on the Ballast Form.

**1. Standard Vessel Information**

**Name:** Print the name of the vessel clearly.  
**Type:** ie, bulk, ro-ro, container, tanker, passenger, oil/bulk ore, general cargo, reefer.  
**Manager:** The name of the ship's manager.  
**IMO/Lloyd's No.:** The vessel's unique IMO identification number.  
**GT:** The gross tonnage of the vessel.  
**Agent:** The agent used for this voyage.  
**Arrival Date:** The arrival date for the current port. Use DD/MM/YY  
**Arrival Port:** The name of the intended first port of call in Australia.  
**Next Port/s in Australia:** Write in any other ports in Australia that the vessel intends visiting after leaving its first Australian port of call. Please list in sequential order of visit.

**2. Ballast Water**

**Total Ballast on Board (in tonnes):** What is the expected total volume of ballast water that will be on-board upon arrival at first Australian port of call? Do not count freshwater that is not used as ballast water (potable water).  
**Total Ballast Capacity (in tonnes):** What is the maximum volume of ballast water that can be carried by this vessel when no cargo is on-board.  
**Total number of ballast tanks:** The total number of ballast tanks on the ship. Include any holds used for ballast water.

**3. Last Three (3) Ports and Countries of Ballast Water Uptake**

List the last three ports of ballast uptake before entering an Australian port, giving both ports and countries. The most recent port first, at (i).

**4. Ballast Water Intentions**

**Do You Intend Discharging any Ballast Water in an Australian Port?** Circle **YES** or **NO**. If the answer to this question is **YES**, then comprehensive information on ballast that will be discharged in an Australian port should be provided in accordance with the requests under the next section, **Ballast Water History**. If the answer to this question is **NO**, then there is no need to complete the requests for information at section 5 or 6. Please go to section 7.

**5. Ballast Water History**

This section will allow AQIS to determine whether sufficient ballast water exchange has occurred. As the form is to be forwarded before a ship's arrival in port, the volume of discharge should be estimated. If this estimation changes, AQIS should be notified as volumes discharged will be verified by an AQIS officer.

**Tanks/Holds:** Please list *all tanks and holds* that will be discharged in Australian waters. For each tank then complete the questions across the page (see next column for instructions). List each tank on a separate line. Use the tank abbreviations listed at the bottom of section 5 on the form. If necessary a continuation sheet can be used, with vessel's Name and IMO/Lloyd's No. on the second sheet.

**Ballast Water Source**

**Date of Uptake:** The date of ballast water uptake, using DD/MM/YY.  
**Last Port of Uptake:** The *port and country* where ballast water was loaded for the voyage.  
**Volume Taken Up (units):** The volume of ballast water loaded and the unit of measurement (ie, tonnes or m<sup>3</sup>).

**Ballast Water Exchange**

**Please indicate method of exchange by circling empty/refill or flow through.**  
**Date/s of Exchange:** Date of ballast water exchange, using DD/MM/YY. If exchanges occurred over multiple days, list the range of days using DD<sup>1</sup> → DD<sup>2</sup>/MM/YY.  
**Start Point Latitude and Longitude:** Report location where ballast water exchange began.  
**End Point Latitude and Longitude:** Report location where ballast water exchange ended.  
**Volume Exchange (units):** Record the volume of ballast water exchanged and include the unit of measurement  
**% Exchanged:** (note: for effective flow-through exchange this figure should be at least 300%). Use the formula:  

$$\% \text{ Exchange} = \frac{\text{Total volume of refill or flow-through water}}{\text{Original volume of ballast water}} \times 100$$

**Ballast Water Discharge**

If you intend discharging at more than one Australian port, then all ports of discharge must be noted, and estimates of volumes to be discharged at each port should be entered. *This will require repeat listings of those tanks intended for discharge at more than one Australian Port.*  
**Australian Port/s of Discharge:** Intended location of ballast water discharge. Do not abbreviate.  
**Date/s of Discharge DDDMMYY:** Intended date of ballast water discharge, using DD/MM/YY. If discharge will occur over multiple days, list the range of days over which discharge is intended to occur, using D<sup>1</sup> → D<sup>2</sup>/MM/YY.  
**Volume of Discharge (Units):** The volume of ballast water discharged and the unit of measurement.

**6. Reason for Failure to Exchange**

This section seeks an explanation of why a vessel did not exchange in mid ocean the ballast in any or all of its tanks intended for discharge in an Australian port. Reasons may be that exchange was unsafe due to weather or the structural capacity of the ship. If weather is the reason, this may be verified by AQIS using the mid-ocean coordinates travelled by the vessel and weather reports. If structural safety is the reason an AQIS officer may ask to see the ship's ballast water management plan, ISM Plan, or other documentation.

**If exchanges were not conducted in any of the tanks/holds listed in 5, please state reasons why not:** List specific reasons why ballast water exchange was not performed. This applies to *all tanks* being discharged in Australian waters.

**7. Ballast Water Management Plans**

IMO Assembly Resolution A.868(20), *Guidelines for the Control and Management of Ships' Ballast Water to Minimise the Transfer of Harmful Aquatic Organisms and Pathogens*, adopted by the IMO in November 1997, recommends that ships carry ballast water management plans on-board. This will mean that ballasting processes are well documented and the structural capacity of the ship to exchange ballast in mid ocean will have been verified.

**Ballast water management plan on board?** Is there on-board this vessel a ballast water management plan as defined under the IMO Ballast Water Guidelines and the Australian Ballast Water Management Guidelines? Circle Yes or No.

**Has this been implemented?** Was the plan implemented on the voyage to Australian waters. Circle Yes or No.

**Responsible officer's name and title (printed) and signature:** Print name, title and include signature. Date the form.

# DRAFT 03/02/2006

## AQIS - BALLAST WATER REPORTING FORM

Quarantine Act 1908

TO BE COMPLETED BY ALL VESSELS GREATER THAN 25 METRES AND NOT EQUIPPED WITH A FAX AND TO BE TELEXED TO AQIS PRIOR TO VESSEL'S FIRST AUSTRALIAN PORT ARRIVAL.

MUST ACCOMPANY AQIS QUARANTINE DECLARATION FOR VESSELS FORM.

PLEASE TELEX YOUR ANSWERS IN THE FOLLOWING ORDER AND UNDER THE FOLLOWING HEADINGS.

IT IS ONLY NECESSARY TO TYPE THE LETTER PRECEDING THE QUESTION AND THE ANSWER.

### 1. VESSEL INFORMATION

- 1A Name
- 1B Type
- 1C Manager
- 1D IMO/Lloyds No.
- 1E GT
- 1F Agent
- 1G Arrival Date
- 1H Arrival Port
- 1I Next Port/s in Australia

### 2. BALLAST WATER

- 2A Total Ballast on Board in tonnes
- 2B Total Ballast Capacity in tonnes
- 2C Total number of ballast tanks

### 3. LAST THREE PORTS AND COUNTRIES OF BALLAST WATER UPTAKE

- 3A Port  
Country
- 3B Port  
Country
- 3C Port  
Country

### 4. DO YOU INTEND DISCHARGING ANY BALLAST WATER IN AN AUSTRALIAN PORT ?

Answer by writing yes or no

If yes - refer to questions 1 2 3 5 6 and 7

If no - refer to 1 2 3 and 7 only

### 5. BALLAST WATER HISTORY

Record all tanks that will be discharged in Australian ports for current voyage.

This section must be completed separately for each tank that will be discharged in Australian waters. Answer all questions for each tank. Fill out this section in its entirety before moving onto section 6.

5A Tank/Hold

#### BW Source

- 5Bi Date of Uptake DDMMYY
- 5Bii Last Port of Uptake
- 5Biii Vol. Taken Up and units

#### BW Exchange

- 5Ci Please indicate whether exchange was through empty-refill or flow-through
- 5Cii Date/s of exchange DDMMYY
- 5Ciii Start Point Lat. Long
- 5Civ End Point Lat. Long
- 5Cv Vol. Exchange units
- 5Cvi %age Exchange

#### BW Discharge

- 5Di Australian Port/s of Discharge
- 5Dii Date/s of Discharge DDMMYY
- 5Diii Vol. of Discharge and units

BALLAST WATER TANK CODES Full Tank - F.  
Forepeak - FP. Aftpeak - AP. Double Bottom - DB.  
Wing - WT. Topside - TS. Cargo Hold - CH. Other - specify.

### 6. REASONS FOR FAILURE TO EXCHANGE

If exchanges were not conducted in any of the tanks/holds listed above, please list tank/hold and state reason why not.

### 7. BALLAST WATER MANAGEMENT PLANS

- 7A Ballast water management plan on board  
write yes or no
- 7B Has this been implemented  
write yes or no
- 7C Responsible officer name and title
- 7D Date

Note - Masters or Delegated Officer who wilfully make a false statement may be liable to a significant fine and/or imprisonment under Australian Law

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# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: Canada

National Monitoring Authority: Canadian Coast Guard (CCG).

Ports affected: St Lawrence River and Great Lakes ports west of 63°W. longitude.

Ships affected: All ships transiting the Eastern Canada Vessel Traffic Services Zones (ECAREG VTS Zone) that are proceeding towards St Lawrence River beyond 63°W longitude.

Implementation: Voluntary application. (But note that mandatory US regulations apply past Massena in New York state, USA.)

Date of start: 1st May 1989

Methods acceptable:

Ballast water exchange at sea, as far from land as practicable, in ocean depth greater than 2000 metres.

In exceptional circumstances and for ships which have not left the North American continental shelf on their inbound voyage, the exchange may be made in internal Canadian waters, within the Laurentian Channel and in water depths exceeding 300 metres. Such exchanges should be restricted to the area south-east of 63°W.

Unwanted aquatic organisms or pathogens: Not defined, but sediment unwelcome.

Uptake control measures: When pumping out ballast tanks during exchange, the pump should be run until it loses suction.

Sampling required: None required by ship. Samples of ballast water may be taken by local authorities to assess the effectiveness of the guidelines.

Records required: An entry should be made in the ship's logbook, or other suitable documentation, recording the salinity of the ballast water to be discharged in the Great Lakes, and the location, date and time of the ballast water exchange at sea.

A Ballast Water Exchange Report Form will be provided by the pilot boarding at Les Escoumins. It must be completed and passed to the lockmaster at St Lambert Lock, or to the CCG if not transiting through that lock.

Procedure if en route management is not possible:

Nothing in the Canadian guidelines should be construed as an infringement on the responsibility of a ship's master for the stability and safety of the ship.

Procedure if ballast water found to be unacceptable after sampling:

Not applicable.

For further information refer to:

Voluntary Guidelines for the control of Ballast Water Discharges from Ships Proceeding to the St Lawrence River and Great Lakes, published by the Canadian Coast Guard. **Note that special rules apply to ships departing from ports in Lake Superior, with ballast that has been taken in Lake Superior.**

# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: Chile

National Monitoring Authority: Chilean Navy; Division for Maritime Territory and the Merchant Marine, Maritime Safety and Operations Department. .

Ports affected: All

Ships affected: All ships coming from abroad, ballasted with sea water. No exceptions are listed.

All ships coming from zones affected by cholera or by any similar contagious epidemic.

Implementation: Mandatory application.

Date of start: 10 August 1995

Methods acceptable:

Ballast water exchange in deep water. Entries in bridge and engine room logbooks, showing geographical co-ordinates, amount replaced and what percentage of total ballast capacity it represents.

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: Not defined.

Records required: Log book entry as above.

Procedures if en route management is not possible:

In-tank treatment prior to discharge. Addition of 100 grams of powdered sodium hypochlorite, or 14 grams of powdered calcium hypochlorite, per tonne of ballast water, ensuring thorough mixing, and then allowing 24 hours before beginning to deballast.

Procedure if ballast water found to be unacceptable after sampling:

Not known.

For further information refer to: Chilean Declaration DGTM. and MM. ORD. NO. 12600/228 VRS. Order for Preventative Measures to Avoid Transmission of Harmful Organisms and Epidemics by Ballast Water. 10th August 1995

# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: Israel

National Monitoring Authority: Ministry of Transport, Administration of Shipping and Ports.

Ports affected: All

Ships affected: All ships destined for Israeli ports, wishing to pump out ballast water while in port or while navigating along the coast of Israel. No exceptions are listed.

Implementation: Mandatory application.

Date of start: 15 August 1994

Methods acceptable:

Ballast water that has not been taken on in open ocean, must be exchanged in open ocean, beyond any continental shelf or fresh water current effect. Masters will be requested to provide ships' inspectors (pilots) with a completed ballast water exchange report.

Ships bound for Eilat must exchange outside of the Red Sea, when practicable. Ships bound for Mediterranean ports must exchange in the Atlantic Ocean when practicable.

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: Not defined.

Records required: Israel has issued a format for recording the status of ballast. A copy is shown on page [ ].

Procedures if en route management is not possible:

Retention on board.

Procedure if ballast water found to be unacceptable after sampling:

Retention on board.

For further information refer to:

Israel Notice to Mariners No. 4/96 dated 19th April 1996.

# DRAFT 03/02/2006

## Israel Ballast Water Exchange

VESSEL NAME		PORT OF REGISTRY		OFFICIAL NUMBER
OVERALL LENGTH	BEAM	MOULDED DEPTH	PRESENT DRAFT FWD _____ AFT _____	
OWNERS		AGENTS		
CARGO		LOADING TONNAGES)	PORT(S)	(WITH
DATES				
WILL VESSEL DEBALLAST DURING THIS CALL IN ISRAELI PORTS Y / N				
IF	YES	SPECIFY	UNITS	M <sup>3</sup> /MT/LT/ST/
FULL BALLAST (TONNES):		CAPACITY	DISTRIBUTION (TANK NO. AND CAPACITY)	
WHERE WAS BALLAST TAKEN ON? (INCLUDE DATE)				
LOCATION _____				
DATE _____ 19 _____				
LOCATION _____				
DATE _____ 19 _____				
WAS BALLAST EXCHANGED DURING VOYAGE				
NO _____ YES _____				
-----				
IF YES PLEASE INDICATE DATE AND LOCATION				
LOCATION _____				
DATE _____ 19 _____				
LOCATION _____				
DATE _____ 19 _____				

DRAFT 03/02/2006

MASTER'S NAME (PRINT)	MASTER'S SIGNATURE
PLACE:  DATE _____ 19 _____	SHIP'S STAMP



# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: New Zealand.

National Monitoring Authority: New Zealand Ministry of Fisheries.

Ports affected: All

Ships affected: All ships entering New Zealand territorial seas carrying ballast water loaded within the territorial water of another country. No exceptions are listed.

Implementation: Compliance with guidelines requiring mid-ocean exchange of ballast water. An import health standard for ballast water came into effect on 30 April 1998, applying to ballast water loaded in another country and due for discharge in New Zealand. It requires that ballast water to be discharged has been exchanged in mid-ocean.

Use of reporting form prior to arrival in first New Zealand port, and on departure from final New Zealand port, is mandatory. Examples of the arrival and departure forms are given opposite.

Date of start: 1996. Mandatory measures from 30 April 1998.

Methods acceptable:

1. Ballast water exchange in deep water.
2. Use of fresh water in ballast tanks (<2.5ppt NaCl).
3. Use of approved on-shore treatment facility (none approved yet).
4. Use of approved in-tank treatment (none approved yet).
5. Discharge into an approved low risk zone (none approved yet).

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified. However, masters are expected to use their discretion and care when loading ballast water, avoiding where possible, taking ballast in shallow water, in areas where there are known to be active algal blooms or an outbreak of any disease communicable through ballast water, and in the vicinity of dredging operations.

Sampling required: Not defined.

Records required: Location and volume of ballast water loaded in other port; location, volume, method and duration of exchange at sea; location, volume and date of discharge in New Zealand.

Procedures if en route management is not possible: Until other treatment options are available, discharge will be permitted if it can be shown that weather conditions and/or vessel design precluded safe exchange, and the ballast water for discharge was not loaded in an area listed in Annex 1 of the Import Health Standard (currently Tasmania and Port Philip Bay, Australia).

For further information refer to:

New Zealand Import Health Standard for Ballast Water from All Countries.

New Zealand Ballast Water and Ships Hull De-fouling: a Government Strategy  
January 1998.

DRAFT 03/02/2006

Insert New Zealand reporting form here

Two pages on MS Excel document

# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: U.S.A. **EXISTING JUNE 1998**

National Monitoring Authority : US Coast Guard (USCG).

Ports affected: Great Lakes and Hudson River above the George Washington bridge.

Ships affected: All ships with ballast tanks, bound for the Great Lakes and / or the Hudson River above the George Washington bridge and entering from outside the US and Canadian Exclusive Economic Zones (EEZ), or which took on new ballast in a North American port after entering the EEZ.

Implementation: Mandatory in Great Lakes and Hudson River north of the George Washington bridge.

Date of start: Great Lakes - May 1993; Hudson River - December 1994

### Methods acceptable:

1. Complete ballast water exchange at sea, outside US EEZ, in a depth of more than 2000 metres.
2. Retain ballast water on board ship.
3. Complete ballast water exchange in alternative designated areas approved in advance by the USCG Captain of the Port (COTP).
4. Alternative ballast water management practices approved in advance by the USCG. (Send requests to address below.)

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: The USCG may sample ballast water and sediment, examine documents, and make appropriate enquiries to assess compliance.

Records required: A ballast water reporting form is available from the USCG for reporting ballast procedures.

### Procedure if en route management is not possible:

1. Retain ballast water on board.
2. Complete ballast water exchange in alternative designated areas approved in advance by the USCG Captain of the Port.
3. Alternative ballast water management practices approved in advance by the USCG.

### Procedure if ballast water found to be unacceptable after sampling

1. Failure to comply, and knowing violation may result in civil penalties.
2. USCG may request US Customs to withhold or revoke the clearance required by 46 USC app.91 of any owner or operator of a ship not in compliance with these regulations.

### For further information refer to:

- US Code of Federal Regulations (33 CFR Part 151, Subpart C).
- US Nonindigenous Aquatic Nuisance Prevention and Control Act (16 US Code 4701, *et seq*)
- Commandant, Office of Response (G-MOR); United States Coast Guard 2100 2nd Street, Southwest, Room 2100; Washington DC 20593-0001

# DRAFT 03/02/2006

## NATIONAL REQUIREMENT

Country: U.S.A. **TO BE IMPLEMENTED DURING 1998**

National Monitoring Authority: US Coast Guard (USCG).

Ports affected: All

Ships affected: All ships carrying ballast and arriving from outside the US exclusive economic zone (EEZ). Except:

- Passenger ships equipped with systems that can kill aquatic organisms in ballast water.
- Crude oil tankers engaged in US coastwise trade.

Implementation: Voluntary compliance for at least three years.

Date of start: 1998 (?)

Methods acceptable:

1. Ballast water exchange at sea, outside US EEZ.
2. Ballast water exchange in designated sea area within US EEZ.
3. Environmentally sound alternative ballast water management methods which can include modifications to a ship.

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: Not defined.

Records required: The US has issued a format for recording the status of ballast. A copy is shown opposite.

Procedure if en route management is not possible: [not yet known]

Procedure if ballast water found to be unacceptable after sampling  
Not yet known; controls are still voluntary.

For further information refer to: US Invasive Species Act. 1996

***Full guidelines to be produced. The US Coast Guard (USCG) will be monitoring all ships to gauge compliance. After two years (or more), a report will be made, containing a recommendation as to whether the requirement should be made mandatory.***

# BALLAST WATER REPORTING FORM

(To be provided to the Port State Authority upon Request)

OMB Control Number 2115-0598

## 1. VESSEL INFORMATION

Vessel Name:	Type:	IMO Number:	Specify Units: M <sup>3</sup> , MT, LT, ST
Owner:	GT:	Call Sign:	Total Ballast Water on Board:
Flag:	Arrival Date:	Agent:	
Last Port and Country:		Arrival Port:	Total Ballast Water Capacity:
Next Port and Country:			

## 2. BALLAST WATER

**3. BALLAST WATER TANKS** Ballast Water Management Plan onboard? Yes \_\_\_ No \_\_\_ Management Plan Implemented? Yes \_\_\_ No \_\_\_

Total Number of Tanks On Board: \_\_\_\_\_ No of tanks in ballast: \_\_\_\_\_ IF NONE IN BALLAST GO TO NO. 5.

No of tanks exchanged: \_\_\_\_\_ No of tanks not exchanged: \_\_\_\_\_

## 4. BALLAST WATER HISTORY: RECORD ALL TANKS THAT WILL BE DEBALLASTED IN PORT STATE OF ARRIVAL; IF NONE GO TO NO. 5.

Tanks/Holds <small>List multiple sources per tanks separately</small>	BW SOURCE				BW EXCHANGE <small>Circle one: Empty/Refill or Flow Through</small>					BW DISCHARGE			
	DATE DDMMYY	Port or Lat/Long	Volume (units)	Temp (units)	DATE DDMMYY	Endpoint Lat/Long.	Volume (units)	% Exch.	Sea Hgt. (m)	DATE DDMMYY	Port or Lat/Long	Volume (units)	Salinity (units)

**Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP; Double Bottom = DB; Wing = WT; Topside = TS; Cargo Hold = CH; Other = O**

IF EXCHANGES WERE NOT CONDUCTED, STATE OTHER CONTROL ACTION(S) TAKEN: \_\_\_\_\_

IF NONE STATE REASON WHY NOT: \_\_\_\_\_

**5: IMO BALLAST WATER GUIDELINES ON BOARD (RES. A.868(20))?** YES \_\_\_\_\_ NO \_\_\_\_\_

**RESPONSIBLE OFFICER'S NAME AND TITLE (PRINTED) AND SIGNATURE:** \_\_\_\_\_

# GUIDELINES FOR COMPLETING THE (U.S.) BALLAST WATER REPORTING FORM

Please fill out in English and make every effort to PRINT legibly !

## SECTION 1: VESSEL INFORMATION

**Vessel Name:** Print the name of the vessel clearly.

**Owner:** The registered owner(s) or operator(s) of the vessel.

**Flag:** Country under which the ship normally operates. Write out, *no abbreviations please !*

**Last Port and Country:** Last port and country at which the vessel called before arrival in the current port - *no abbreviations please !*

**Next Port and Country:** Next port and country at which the vessel will call, upon departure from the current port - *no abbreviations please !*

**Type:** List specific vessel type, write out or use the following abbreviations: bulk(bc); roro (rr); container (cs); tanker(ts); passenger (pa); oil/bulk ore (ob); general cargo (gc). Write out any additional vessel types.

**GT:** Gross tonnage.

**Arrival Date:** Arrival date to current port. (ie. *the first US port of arrival* after entering the US exclusive economic zone (EEZ)). Please use European date format (DDMMYY)

**IMO Number:** Identification Number of the vessel used by the International Maritime Organization.

**Call Sign:** Official call sign.

**Agent:** Agent used for this voyage.

**Arrival Port:** This is the current port (ie. the first US port of arrival). *No abbreviations please !*

## SECTION 2: BALLAST WATER

(Note: Segregated ballast water = clean, non-oily ballast)

**Total ballast water on board:** Total segregated ballast water upon arrival to current port - *with units.*

**Total ballast water capacity:** Total volume of all ballastable tanks or holds - *with units.*

## SECTION 3: BALLAST WATER TANKS

Count all tanks and holds separately (e.g. port and starboard tanks should be counted separately).

**Total No. of Tanks on board:** Count all tanks and holds that can carry segregated ballast water.

**Ballast Water Management Plan on board?:** Do you have a ballast water management plan specific to your vessel on board? Check Yes or No.

**Management Plan Implemented?:** Do you follow the above management plan? Check Yes or No.

**No. of Tanks in Ballast:** Number of segregated ballast water tanks and holds with ballast at the onset of the voyage to the current port. If you have no ballast water on board go to section 5.

**No. of Tanks Exchanged:** This refers only to tanks and holds with ballast at the onset of the voyage to the current port.

**No. of Tanks Not Exchanged:** This refers only to tanks and holds with ballast at the onset of the voyage to the current port.

**SECTION 4: BALLAST WATER HISTORY**

**BW SOURCE:** Please list *all tanks and holds* that you have discharged or plan to discharge in U.S. waters (carefully write out, or use codes listed below the table). Follow each tank across the page listing all source(s), exchange events, and/or discharge events separately. If the ballast water history is identical (i.e. the same source, exchange and discharge dates and locations), like tanks can be combined (example: wing tank 1 with wing tank 2 both water from Belgium, exchanged Oct. 3rd, mid ocean - can be combined See first line of the table in the sample form). Please use an additional page if you need, being careful to include ship name, date and IMO number at the top.

**Date:** Date of ballast water uptake. Use European format (DDMMYY).

**Port or Latitude/Longitude:** Location of ballast water uptake, *no abbreviations for ports!*

**Volume:** Volume of ballast water uptake, *with units*.

**Temperature:** Water temperature at time of ballast water uptake, in degrees Centigrade.

**BW EXCHANGE:** Indicate exchange method: Circle empty/refill or flow through.

**Date:** Date of ballast water exchange. Use European format (DDMMYY).

**Endpoint or Latitude/Longitude:** Location of ballast water exchange. If it occurred over an extended distance, list the end point latitude and longitude.

**Volume:** Volume of ballast water exchanged, *with units*.

**Percentage exchanged:** Percentage of ballast water exchanged. Calculate this by dividing the number of units of water exchanged by the original volume of ballast water in the tank. If necessary estimate based on pump rate. (NOTE: For effective flow-through exchange this value should be at least 300%).

**Sea Height (m):** Document the sea height in meters at the time of the ballast exchange (Note: this is the combined height of the wind seas, and swell, and does not refer to the depth).

**BW DISCHARGE:**

**Date:** Date of ballast water discharge. Use European format (DDMMYY).

**Port or latitude/longitude:** Location of ballast water discharge, no abbreviations for ports.

**Volume:** Volume of ballast water discharged, *with units*.

**Salinity:** Document salinity of ballast water at the time of discharge, *with units*, (i.e. specific gravity (sg) or parts per thousand (ppt)).

**If exchanges were not conducted, state other control action(s) taken:** If exchanges were not made on all tanks and holds to be discharged in U.S. waters, what other actions were taken? (ie. transfer of water to a landbased holding facility or other approved treatment).

**If none, state reason why not:** List specific reasons why ballast exchange was not done. This applies to all tanks and holds being discharged in U.S. waters.

**SECTION 5: IMO BALLAST WATER GUIDELINES ON BOARD?:** Check Yes or No.

**Responsible Officer's name and title (printed) and signature:** e.g. the First Mate, Captain, or Chief Engineer must print their name and title and sign the form.

REGIONAL OR SINGLE PORT REQUIREMENT

Region or port: Buenos Aires, Argentina

Monitoring Authority:

Direccion Nacional de Sanidad de Fronteras, del Ministerio de Salud Publica (quarantine authorities from the ministry of public health).

Ports affected: Buenos Aires.

Ships affected: Ships arriving from areas where cholera is endemic.

Implementation: Mandatory.

Date of start: About 1990

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Methods acceptable:

In-tank treatment by adding chlorine to ballast water through air pipes.

Unwanted aquatic organisms or pathogens: Not known.

Uptake control measures: Not known whether any specified.

Sampling required: Random, by Argentine authorities.

Records required: Not known

Procedures if en route management is not possible: Not applicable.

Procedure if ballast water found to be unacceptable after sampling:

Not applicable

For further information refer to: Not known.

### General

Ships should note that new regulations will be introduced in the near future, under Ordinance No. 12-97, dated 7th January 1998, entitled "Rules for the Protection of the Environment". The regulations will designate coastal areas in which discharge of ballast water will be prohibited. The areas in question are generally small and mostly comprise enclosed bays.

Ships should seek the latest information from their agents prior to arrival.



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### REGIONAL OR SINGLE PORT REQUIREMENT

Region or Port: Orkney Islands, United Kingdom

Monitoring Authority: Orkney Islands Council

Ports affected: Scapa Flow, 58°50'23"N; 03°06'25"W.

Ships affected: All ships wishing to discharge ballast at Flotta Terminal.

Exemptions - Liquefied gas carrying tankers.

Implementation: Mandatory application.

Date of start: Prior to 1998

Methods acceptable: Discharge to shore reception facilities. Ballast water treatment plant has capacity to receive 40,000 barrels per hour.

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: None

Records required: Not specified

Procedures if en route management is not possible:  
Not applicable

Procedure if ballast water found to be unacceptable after sampling:  
Not applicable

For further information refer to: Flotta Terminal Port Information Book, issued by Elf Exploration UK plc.

Note: Ballast from liquefied gas carrying tankers may be discharged into Scapa Flow if it has been taken on board within 24 hours, and at least 12 miles from shore. The master must provide the Harbour Authority with signed advice stating date, time and positions between which ballasting operations were carried out, quantity of ballast and tanks in which it is contained. Ballast samples will be taken by authorities to assess suitability for discharge.

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## REGIONAL OR SINGLE PORT REQUIREMENT

Region or Port: Vancouver, Canada.

Monitoring Authority: Vancouver Port Corporation.

Ports affected: Vancouver, Canada.

Ships affected: All ships destined to arrive at the Port of Vancouver in ballast condition.

Exemptions:

- ships wishing to discharge less than 1000 metric tonnes
- Ships arriving from West Coast of USA, Canada and Alaska if the ballast water to be discharged originated from these waters.
- stress of weather
- stability or hull stress concerns.

Implementation: Mandatory application.

Date of start: 1st January 1998.

Methods acceptable:

Ballast water exchange in mid ocean prior to entering Canadian waters. A harbourmaster's representative will require to see either an entry (in English) in the logbook, an abstract of the logbook entry, or other formal record (company or administration). This must include the place where the original ballast was taken on, the position of exchange (latitude and longitude), the amount of ballast on board, and ballast tanks which have had water exchanged.

Unwanted aquatic organisms or pathogens: Not defined.

Uptake control measures: None specified.

Sampling required: Not defined.

Records required: Logbook entry as above.

Procedures if en route management is not possible:

No ballast water to be discharged into harbour until samples have been taken and analysed by the harbourmaster's representative.

Procedure if ballast water found to be unacceptable after sampling:

Retention on board, or departure from port and exchange of ballast in outgoing current of the north side of the Strait of Juan de Fuca, west of Race Rocks.

For further information refer to: Vancouver Port Corporation announcement, dated 10th February 1997, or contact the Harbour Master by telephone (+1 604 666 2405), facsimile (+1 604 666 1072) or E-mail (harbour-master@portvancouver.com).