



## MANAGEMENT SYSTEM MANUAL

# ATL 03 BALLAST WATER MANAGEMENT PLAN

Originator:

Theophilus Moniz III

Approved By:

Albert F. Suchy

### 1. Background

On July 28, 2004, the Coast Guard published final rules mandating a Ballast Water Management Program for U.S. waters. These rules essentially made the voluntary rules found in 33CFR151 mandatory. On June 14, 2004, the Coast Guard published final rules making previously voluntary reporting of submission of Ballast Water Management Reports mandatory.

### 2. Purpose

Ballasting operations on board R/V Atlantis are generally necessary to adjust the vessels trim and to correct a port or starboard list. Although there could be many factors that contribute to creating these conditions, the most common are:

- loading/depleting the vessels fuel supply;
- loading/depleting the Alvin steel weight supply;
- loading/offloading of container vans;
- loading/offloading of scientific equipment, and
- loading of ship's stores.

Ballasting the anti-roll tank in order to reduce the vessel's rolling in heavy weather, is also a common ballasting operation that is done routinely every voyage.

### 3. Operational Procedures

As long as conditions permit, every effort will be made to conduct ballast operations in open ocean (at least 200 miles from shore) and in deep water (at least 2000 meter water depth). While in port, ballast water will be retained in the ballast tanks. If it becomes necessary to load ballast while in port, the ballast water exchange method will be used as recommended by the "Guidelines For The Control And Management Of Ships' Ballast Water". This method involves the exchange of the "in port" water with "open ocean" water. If practicable, the "open ocean" water will be loaded into a different ballast tank and the tank that previously contained the "in port" water would be thoroughly flushed out with "open ocean" water.

It should be noted that the ability to safely conduct the ballast water exchange depends upon weather and sea surface conditions, and it is not always possible to perform an exchange. Also, due to the free surface effects on stability, the vessels Trim and Stability Booklet recommends that no more than two tanks should be slack at any one time.

Ballast water in the anti-roll tank will be retained on board while the vessel is in port, and will only be exchanged in open ocean, if and when conditions permit.



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### Ballast Tanks

TANK	CAPACITY	LOCATION
Forepeak Ballast	14,273	4-0-0
Roll Stabilization Tank	30,477	02-36-0
#1 SW Ballast Center	20,251	4-8-0
#2 SW Ballast Port	19,177	4-32-1
#2 SW Ballast Stbd	19,177	4-32-2
#3 SW Ballast Center	22,940	4-54-0
#3 SW Ballast Port	7,630	4-54-1
#3 SW Ballast Stbd	7.63	4-54-2
#4 SW Ballast Port	10,366	4-60-1
#4 SW Ballast Stbd	10,366	4-60-2
#5 SW Ballast Port	14,903	4-64-3
#5 SW Ballast Stbd	14,903	4-64-4
#6 SW Ballast Port	11,521	4-99-1
#6 SW Ballast Stbd	11,521	4-99-2

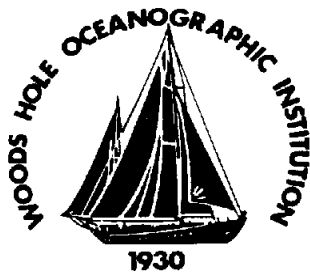
NOTE: Total Capacity of ballast (excluding the roll stabilization tank) is 184,658 gallons or 705.15 LT.

Capacity is given for ballast tanks at 100% full.

(The roll stabilization tank is not kept full.)

The ballast system on the Atlantis is composed of thirteen segregated ballast tanks. Each tank has a sounding tube and a level indicator with readouts at the ballast manifold and in the Main Control Station. The piping to the tanks terminates in the lowest part of the tank.

The roll stabilization tank is used to minimize the ship's roll caused by waves. In a 20 foot sea state the ship's roll will be minimized to approximately 5. As the ship gets hit by a wave, it starts to roll in the opposite direction. The water in the tank will not flow or move to the opposite side as quickly due to phase lag; thus the rolling motion of the ship is countered. The tank has a capacity of 30,477 gallons or 116.38 long tons.



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Two large valves on the 01 level (port and starboard) are used to drain the tank over the side. The valves are located in the Ship's Library and the Crew's Lounge.

The ballast system diagram is attached as Appendix I to this procedure. The Ballast System Operating Instructions are attached as Appendix II to this procedure.

#### 4. Alternative Procedures Under Extraordinary Conditions

If, due to weather, equipment failure, or other extraordinary conditions, the vessel is unable to effect a ballast water exchange before entering the EEZ (Exclusive Economic Zone), the Master must employ another approved method of ballast water management, or request permission from the USCG, Captain of the Port, to exchange the vessel's ballast water within an area agreed to by the COTP at the time of the request and must discharge the vessel's ballast water within that designated area.

#### 5. Responsibilities

The Master of R/V Atlantis has the overall responsibility in all matters regarding the Ballast Water Management Plan.

The Assistant Engineers, under the supervision of the Chief Engineer, shall be responsible for the ballast pumping operations. They shall maintain a thorough knowledge of the ship's ballast tank and pumping arrangements. They shall be aware of the different times required to undertake the various ballast water exchange operations.

The Deck Officers on Watch shall be responsible for keeping a record of all ballast operations in a Ballast Water Management Log. This log shall contain the following information:

- (1) The vessel's name, port of registry, and official number or call sign.
- (2) The name of the vessel's owner(s).
- (3) Whether ballast water is being carried.
- (4) The original location and salinity, if known, of ballast water taken on, before an exchange.
- (5) The location, date and time of any ballast water exchange.
- (6) The salinity of any ballast water to be discharged into the territorial waters of the United States.



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- (7) The intended discharge port for ballast water and location for disposal of sediment carried upon entry into the territorial waters of the United States, if ballast water or sediment are to be discharged.
  - (8) The signature of the master attesting to the accuracy of the information provided and certifying compliance with the requirements.

The ballast reporting form shall be used and is attached as Appendix II.

## 6. Reports

- (a) Ballast water reporting requirements exist for each vessel bound for ports or places in the United States regardless of whether a vessel operated outside of the EEZ.
- (b) The Master, owner, operator, agent or person-in-charge of a vessel to whom this section applies must provide then information required by 151.2045 in electronic or written form to the Commandant, Coast Guard or appropriate COTP as follows:
  - 1) For any vessel bound for the Great Lakes from outside the EEZ
    - i. You must fax the required information at least 24 hours before the vessel arrives in Montreal, Quebec to either the USCG COTP Buffalo, Massena Detachment (315-769-5032), or the St. Lawrence Seaway Development (315-764-3250).
  - 2) For any vessel bound for the Hudson River north of the George Washington Bridge entering from outside the EEZ (which includes the equivalent zone of Canada). You must fax the information to the COTP New York (718-354-4249) at least 24 hours before the vessel enters New York, New York.
  - 3) For any vessel not addressed above, if your voyage is less than 24 hours, you must report before departing your port or place of departure. If your voyage exceeds 24 hours, you must report at least 24 hours, before arrival at your port or place of arrival at your port or place of destination. All required information is to be sent to the National Ballast Information Clearinghouse (NBIC) using only one of the following means:
    - i. Internet at: <http://invasions.si.edu/NBIC/bwform.html>;
    - ii. E-mail to [NBIC@BALLASTREPORT.ORG](mailto:NBIC@BALLASTREPORT.ORG);
    - iii. Fax to 301-261-4319; or
    - iv. Mail to U.S. Coast Guard, c/o SERC (Smithsonian Environmental Research Center), P.O. Box, 28, Edgewater, MD 21037-0028.
- (c) If the information submitted changes, you must submit an amended form before the vessel departs the waters of the United States.

For the purposes of this procedure, the master is responsible for the submission of this report. The preferred method is via the e-mail method. The Port Office shall be



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made an info addressee on that email (portoffice@whoi.edu). If any other is necessary, advise the Port Office of that method in an email to that address.

When entering the State of California, a copy of this form shall also be sent to the State Lands Commission before the vessel departs from the first port of call in California. A copy shall be kept on board in the Ballast Water Log and retained for three years.

The address for the California State Lands Commission is as follows:

California State Lands Commission  
100 Howe Avenue, Suite 100 South  
Sacramento, CA 95825-8202

The Master is responsible for signing the Ballast Water Reporting Form. In his absence a person in charge of the vessel designated by the Port Office shall sign the form.

## 7. Definitions

The following definitions apply when filling out the ballast reporting form.

Vessel Name: Print the name clearly.

IMO Number: Fill in identification number of the vessel used by the International Maritime Organization.

Type: List specific vessel type. Spell out Oceanographic Research Vessel.

GT: Domestic Gross Tons of the vessel.

Arrival Port: Write in the name of your first port of call after entering the U.S. EEZ or St. Lawrence Seaway. No abbreviations please.

Arrival Date: Use the European date format (DDMMYY)

Agent: List agent used for current port.

Last Port: Fill in the last port at which the vessel called immediately before entering the U.S. EEZ. No abbreviations please.



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Country of Last Port: Fill in the last country at which the vessel called immediately before entering the U.S EEZ. No abbreviations please.

Next Port: Fill in the port at which the vessel will call immediately after departing the current port. No abbreviations please.

Volume on board: What was the total volume of ballast water on board upon arrival into the waters of U.S. EEZ. Do not count potable water.

Units: Please include volume units (m3, MT, LT, ST)

Number of tanks in Ballast: Count the number of ballast tanks with ballast as vessel enters inside the United States EEZ.