



# Indian Register of Shipping

Report No.:

## REPORT OF INITIAL / ANNUAL / INTERMEDIATE / RENEWAL / GENERAL EXAMINATION\* SURVEY

For class notation BWE/BWT

Name of ship:

Plans referred during Initial Surveys:

1	
2	
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5	

Sr. No.		Result #
<b>1. GENERAL</b>		
1.1.1	Confirming that Ballast Water Management Plan approved by/on behalf of the Administration has been provided on board in the working language of the ship.	
1.1.2	Confirming that an officer has been designated on board as the in charge of ensuring that the plan is properly implemented.	
1.1.3	Confirming that Officers and crew are familiar with the ship's Ballast Water Management plan and are familiar with their duties in the implementation of Ballast Water Management System (BWMS) particular to the ship.	
1.1.4	Confirming that the Ballast Water Record Book has been provided.	
1.1.5	Exemption where granted by the Administration confirming that same has been recorded in the Ballast Water Record Book.	
1.1.6	Where Ballast Water Management System(s) have been fitted on ship for compliance with Reg.D-2, confirming that certificate(s) for type approval for the system(s) is/are available on board.	
1.1.7	Confirming that a statement has been provided by the Administration, or from a laboratory authorized by the Administration, confirming that the electrical and electronic components of the ballast water management system(s) have been type-tested in accordance with the specifications for environmental testing contained in the IMO guidelines (Resolution MEPC. 125(53), MEPC. 174(58) or MEPC. 279(70) as appropriate) or the BWMS Code, as may be amended.	
1.1.8	Confirming that safety data sheet for the chemicals (Active Substance) including instructions on how to use, safety procedure and personal protective equipment have been provided on board and crew is aware of same.	
1.1.9	Confirming that equipment manuals for major components of the ballast water management system(s).	
1.1.10	Confirming that an operations and technical manual for the ballast water management system(s) specific to the ship and approved by the Administration, containing a technical description of the ballast water management system(s), operational and maintenance procedures, and backup procedures in case of equipment malfunction has been provided.	
1.1.11	Verifying that all software changes introduced to the BWMS Control and Monitoring equipment after the pre-test evaluation are done according to a change handling procedure for traceability.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

<b>2. INITIAL SURVEY (BALLAST WATER TREATMENT SYSTEM)</b>		
2.1	<b>General</b>	
2.1.1	Confirming that ballast water tank arrangement and capacity as provided on the ship correspond to the capacity plan.	
2.1.2	Confirming that the internal arrangement of ballast tanks are such as to minimize accumulation of sediments e.g. adequate provision of scallops and drain holes, absence of stagnant pool or sediment traps, minimal horizontal surfaces, arrangement for effective flushing.	
2.1.3	Confirming that safe access is provided in Ballast Tanks to allow sediment removal and sampling.	
2.1.4	Confirming that the ballast water pumping and piping system including location of inlets and outlets, provision of high sea suction points on each side, provision for removal of suspended matter, provision of discharges and arrangement for stripping the tanks correspond to the approved plan.	
2.1.5	Confirming that arrangement exists for discharging Ballast Water to a reception facility in line with the approved plan and the connections for ballast transfer in particular the sections related to flanges and connection methods are compatible with a recognized standard such as those in the Oil Companies International Marine Forum (OCIMF) "Recommendations for Oil Tankers Manifolds and Associated Equipment".	
2.1.6	Where tanks have been designated as permanent ballast carried in sealed tanks, confirming that these have been so identified in the approved Ballast Water Management Plan including Trim & Stability and Loading manuals and the transfer arrangement if provided have been sealed effectively to avoid unintended discharge of ballast water. Appropriate notices have been displayed to this effect.	
2.2	<b>Installation checks:</b>	
2.2.1	Confirming that installation commissioning procedures for the ballast water management system(s) have been provided.	
2.2.2	Verifying that the BWMS installation conforms to the manufacturer's equipment specification, installation specification and the approved plans.	
2.2.3	Verifying that the ballast water management system is in conformity with the Type Approval Certificate of BWMS.	
2.2.4	Confirming that initial calibration procedures of the ballast water management System (s) have been provided and a valid calibration certificate issued by manufacturer or person authorized by the manufacturer is available on board.	
2.2.5	Confirming that the flow rate capacity of the ballast system as installed on board correspond to approved plan and does not exceed the Treatment Rated Capacity specified in the Type Approval Certificate.	
2.2.6	Confirming that provision for avoiding over pressurization of ballast tanks or ballast piping have been made in line with the approved plans.	
2.2.7	Confirming that suitable by-pass or override arrangement has been provided as per approved plan, for the system to be operated in case of an emergency or conditions as permitted under Regulation A-3.	
2.2.8	For BWMS requiring treatment of ballast water at both intake and discharge, Confirming that water stripped from ballast tanks is also passed through the required treatment process. (Note: Chemical based BWMS requiring neutralization of the residual oxidants prior discharge of ballast water, arrangement ensuring effectiveness of neutralization is to be confirmed based on the approved ballast water stripping system design and operation)	
2.2.9	Confirming that based on the initial Risk Assessment carried out, mitigating measures have been put in place/implemented.	
2.2.10	<b>Where the BWMS is installed in an independent compartment, Confirming that the compartment complies with following:</b>	
2.2.10.1	Provided with fire integrity equivalent to other machinery spaces based on approved plan.	
2.2.10.2	Provided with fire detection, firefighting as per fire control plan.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

2.2.10.3	Positioned outside of any combustible, corrosive, toxic, or hazardous areas unless otherwise specifically approved.	
2.2.11	<b>Where BWMS or its components are required to be installed in a non-hazardous area but the compartment containing these components are located in a hazardous area, confirming that following provisions are satisfied:</b>	
2.2.11.1	Deck and bulkhead penetrations are sealed gas tight.	
2.2.11.2	No part of the ballast water piping is located in the compartment.	
2.2.11.3	No source of release of gas e.g. flange connection/valves are located in the compartment.	
2.2.11.4	Access to the compartment from hazardous area is through two gastight self closing doors with air lock capable of maintaining a positive pressure. Provision for audible and visual alarm at control station for loss of pressure in the air lock and safety interlock for cutting out electrical supply due to loss of pressure.  (Note: No air lock however will be required where a vertical separation of at least 2.4m is maintained between the flooring of the compartment and main deck plating or a cofferdam is provided in between the compartment and main deck.)	
2.2.11.5	Ventilation inlet and outlets are located outside hazardous area.	
2.2.11.6	Confirming that Blower capacity is as per approved plan.  (Note: Ventilation system for the compartment capable of at least 20 air changes an hour or as required by manufacturer, whichever is greater.)	
2.2.12	<b>Confirming in respect of the Piping system:</b>	
2.2.12.1	Valves, piping fittings and flanges fitted in the system are as per approved plan.	
2.2.12.2	Where plastic pipes have been accepted for use, these are to meet the specification as in IMO Res.A.753(18) with regard to strength, fire endurance, flame spread etc.	
2.2.12.3	Where non-metallic expansion joint/s are fitted in piping system which penetrates the ship's side and both penetration and non-metallic expansion joint are located below the deepest load water line, an additional information has been recommended, for the expansion joint/s to be inspected at periodical surveys and to be replaced at interval as specified by the manufacturer.	
2.2.12.4	Pipe joints are of welded type except for connections to shut off valves or double walled pipes or pipes in ducts equipped with mechanical exhaust ventilation (except where it is demonstrated that risk of leakage is minimized and the formation of toxic or flammable atmosphere is prevented and accepted, refer approved plan).	
2.2.12.5	Location of the piping system is away from heat sources and protected from mechanical damage.	
2.2.12.6	Where there is interconnection of ballast piping between hazardous areas and in nonhazardous areas, an appropriate isolation arrangement is provided as per approved plan.	
2.2.12.7	Where a vacuum may occur in the ballast line due to the height difference, a suitable protection means is provided, e.g. P/V valves or breather valves, and their outlets are led to safe area on open deck.	
2.2.12.8	Bulkhead/deck penetrations or penetrations of the ballast system piping are to the relevant approved standards.	
2.2.12.9	Provision for extended spindle or portable pump for operation of the submerged valves in ballast systems (if any).	
2.2.13	<b>System specific requirements</b>	
2.2.13.1	<b>BWMS using mechanical separation systems</b>	
2.2.13.1.1	Confirming that pressure loss across the BWMS does not reduce the ability of the ballast system to supply at an acceptable flow rate to a remote ballast tank.	
2.2.13.1.2	Verification of the arrangement for backwashing in order to confirm the wastes can be adequately removed from the system taking into account the maximum static head when the vessel is at maximum draft.	
2.2.13.1.3	Verification that the arrangements (e.g. controls, procedures etc. are in place which allows separation system and associated piping to be backwashed and flushed clean upon completion of ballasting as well as de-ballasting operations.	

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Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

2.2.13.2	<b>BWMS using cavitation and ultrasound systems</b>	
2.2.13.2.1	Confirming that pressure loss across the cavitation or ultrasound treatment system does not reduce the ability of the ballast system to supply at an acceptable flow rate to a remote ballast tank.	
2.2.13.3	<b>BWMS using Inert Gas De-oxygenation systems</b>	
2.2.13.3.1	Confirming that inert gas generating system including inert gas injection to ballast water system comply with approved plan. The arrangements for isolation, interlock and controls including the operation of the inert gas generator verified satisfactorily.	
2.2.13.4	<b>BWMS using Ultraviolet (UV) disinfection systems</b>	
2.2.13.4.1	Confirming that arrangements have been provided such that exposure to UV light is avoided during operation, maintenance or repairs of the system.	
2.2.13.4.2	Confirming that high temperature alarm, provision for shut down, UV intensity meter, means to prevent operation of UV lamps without water in treatment chamber have been provided and are satisfactory.	
2.2.13.5	<b>BWMS using Ozone Injection systems</b>	
2.2.13.5.1	Confirming that arrangements for ozone generating unit, ozone piping installation, provision of ozone detectors in the space and alarms are as per the approved plan and satisfactory.	
2.2.13.5.2	Confirming that vents from safety valves of ozone system are led to open deck, arrangements provided to automatically shut down the system when the ozone concentration exceeds.	
2.2.13.5.3	Warning plates are installed in all areas into which ozone can escape.	
2.2.13.6	<b>BWMS using Electro-chlorination systems</b>	
2.2.13.6.1	Confirming that arrangement and installation for electro-chlorination system is as per the approved plan complying with the manufacturer's instruction and satisfactory.	
2.2.13.6.2	Confirming that operation of the system is interlocked with the ventilation system for the compartment housing the electro-chlorination system.	
2.2.13.6.3	Confirming that exhaust vents from the system are led to a safe area in the open deck.	
2.2.13.6.4	Confirming that interlock arrangement has been provided so that the system cannot be energized if the water level /flow is less.	
2.2.13.6.5	Confirming that a fixed hydrogen gas detection system with automatic shutdown is provided in the compartment housing the electro-chlorination system.	
2.2.13.7	<b>BWMS using In-Tank treatment systems</b>	
2.2.13.7.1	Confirming that ballast tanks fitted with in-tank treatment systems and subject to over or under pressure are fitted with Pressure-Vacuum valves and calibrated pressure measuring devices as specified in the approved plan and are satisfactory.	
2.2.13.7.2	Confirming that ballast tanks with in-tank treatment systems are provided with safety alarm system to indicate deviation from the normal working pressure and a system for shutting down the system when the pressure deviation is beyond specified limit and these have been tested for satisfactory operation.	
2.2.13.8	<b>BWMS using Active Substance</b>	
2.2.13.8.1	Confirming that, sufficient active substance(s) are provided on board.	
2.2.13.8.2	Confirming that, dosage instruction for active substances or preparations are available on board.	
2.2.13.8.3	Confirming that storage of the active substance(s) is satisfactory taking into account the risks/hazards involved with the substance as provided in the safety data sheet.	
2.2.13.8.4	Confirming that the materials used for the chemical storage tanks, piping and fittings are resistant to such chemicals.	
2.2.13.8.5	Confirming that separate pumping and piping system is used for chemicals and arrangements verified satisfactorily.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

2.2.13.8.6	Confirming that chemical storage tanks are of sufficient strength, provided with gauging system, protected against overflowing and constructed such that maintenance and inspection can be easily performed.	
2.2.13.8.7	Confirming that air pipes for the chemical storage tank are led to a safe area on open deck.	
2.2.13.8.8	Confirming that an operation manual containing chemical injection procedures, alarm systems, measures in case of emergency, etc. is provided onboard.	
2.2.14	<b>Arrangement for Ventilation:</b>	
2.2.14.1	Confirming that Blower capacity is as per approved plan. (Note: Where the BWMS is installed in a separate compartment which is not a hazardous area and does not serve any ballast tanks considered to be hazardous, the compartment is to be provided with a mechanical ventilation system capable of at least 6 air changes per hour or as specified by the BWMS manufacturer, whichever is greater.)	
2.2.14.2	Confirming that the BWMS when fitted in hazardous area, regardless of whether or not it generates dangerous gas, is located in a space fitted with mechanical ventilation complying with relevant requirements, e.g. IEC60092- 502, IBC Code, IGC Code requirements, etc.	
2.2.15	<b>Where the operating principle of the BWMS involves the generation of a dangerous gas, the following requirements are to be satisfied:</b>	
2.2.15.1	Where gas detection equipment is fitted in the spaces where dangerous gas could be present, an audible and visual alarm is provided and can be activated both locally and at the BWMS control station in the event of leakage. (Note: The gas detection device is to be designed and tested in accordance with IEC 60079-29-1 or recognized standards acceptable to the Society.)	
2.2.15.2	The ventilation line of a space where dangerous gas could be present is led to a safe area on open deck.	
2.2.15.3	The arrangements used for gas relieving, i.e. degas equipment or equivalent, are to be provided with monitoring measures with independent shutdown. The open end of the gas relieving device is led to a safe area on open deck.	
2.2.15.4	Ballast piping, including sampling lines from ballast tanks considered as hazardous areas, is not led to an enclosed space regarded as a safe area, without any appropriate measures, except ships carrying liquefied gases in bulk.	
2.2.16	<b>Sampling Facility</b>	
2.2.16.1	Confirming that sampling facilities are provided as mentioned in the approved Ballast Water Management Plan and so arranged in order to collect representative samples of the ship's ballast water from the ballast water management system(s) intake(s), or from a location before the ballast discharge points and any other points necessary for sampling. Note: In-tank sampling may be used if ballast water treatment occurs on uptake prior to or whilst ballast water is in the tank. This method of sampling is ideal when tanks are emptied through direct overboard discharge valves. Sampling to determine compliance with Regulation D-2 should be carried out in the ballast water discharge line near the discharge point.	
2.2.16.2	<b>Sampling point for ballast water containing dangerous gas, where located in a non-hazardous area confirming that following requirements are fulfilled:</b>	
2.2.16.2.1	The sampling facility is located within a gas tight enclosure (cabinet).	
2.2.16.2.2	In the cabinet, a stop valve is installed in each sample pipe.	
2.2.16.2.3	Gas detection equipment is installed in the cabinet and the stop valves in sample pipes are automatically closed upon activation of the gas detection equipment.	
2.2.16.2.4	Audible and visual alarm signals are activated both locally and at the BWMS control station when the concentration of explosive gases reaches a pre-set value, which is not higher than 30% of the lower flammable limit (LFL) of the concerned product.	
2.2.16.2.5	The measuring system is installed as close to the bulkhead as possible, and the length of measuring pipe in any safe area is as short as possible.	
2.2.16.2.6	Stop valves are located in the safe area, in both the suction and return pipes close to the bulkhead penetrations.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

2.2.16.2.7	Warning plate stating "Keep valve closed when not performing measurements" is posted near the valves.	
2.2.16.2.8	In order to prevent backflow, a water seal or equivalent arrangement is installed on the hazardous area side of the return pipe.	
2.2.16.2.9	Safety valve is installed on the hazardous area side of each sampling pipe.	
2.2.16.2.10	Sampled ballast water is returned to a part of the system or to the ballast tank.	
2.2.17	<b>Electrical system and Controls</b>	
2.2.17.1	Confirming that the electrical and control equipment for BWMS conforms to the manufacturer's equipment specification, installation specification and the approved plans.	
2.2.17.2	Confirming that the installation of electrical & control equipment has been carried out satisfactorily. Necessary protection as per specification is provided including earthing protection for equipment or components /bonding provision for control of static electricity.	
2.2.17.3	Confirming that remote control valves, where fitted, are arranged so that they will close and remain closed in the event of a loss of control power or emergency shutdown unless manual operation of the valve is possible.	
2.2.17.4	Confirming that ship's generator/s are able to cater to the additional load for BWMS.	
2.2.17.5	Where computer based system is used, confirming that the system has been approved and installation and operation has been verified satisfactorily. Note: The control system is to be tested in accordance with approved test program	
2.2.17.6	Confirming that electric and electronic components which are installed in a hazardous area are of certified safe type for use in the area. Interlock with ventilation arrangement for the compartment is provided. Cable penetrations of decks and bulkheads are sealed.	
2.2.17.7	Confirming that calibration of the Control and Monitoring Equipment has been carried out as per manufacturer's instructions and records to this effect are available on board.	
2.2.17.8	Confirming that in case of any by-pass or override operation of BWMS, an audible and visual alarm has been provided and these events are automatically recorded in control equipment. The valves in the by-pass line which trigger the by-pass operation are remote-controllable by control equipment or fitted with open/close indicator for automatic detection of the by-pass event.	
2.2.17.9	Confirming that the BWMS incorporates control equipment that automatically monitors and adjusts necessary treatment dosages or intensities or other aspects of the BWMS.	
2.2.17.10	Confirming that the control and monitoring equipment is able to produce (e.g. display, print or export) a report of the applicable self-monitoring parameters for official inspections or maintenance, as required.	
2.2.17.11	Confirming that the control and monitoring equipment is able to store data for at least 24 months.	
2.2.18	<b>Operational verification</b>	
2.2.18.1	Confirming the satisfactory installation and operation test of the ballast water management system.	
2.2.18.2	Verifying to confirm the satisfactory operation of the control and monitoring equipment including operation of audible and visual alarms and examination of records of the proper functioning or failure of the BWMS.	
2.2.18.3	Confirming that, System Design Limitation (SDL) parameters are monitored and recorded by the BWMS to ensure proper operation.	
2.2.18.4	Confirming that suitable bypasses or overrides to protect the safety of the ship and personnel are installed and used in the event of an emergency and these are connected to the BWMS so that any bypass of the BWMS activates an alarm. The bypass events are recorded by the control and monitoring equipment and within the ballast water record book.	
2.2.18.5	Confirming that operation of ballast water management recording device(s) is satisfactory and adequate supply of consumables for the recording device(s) are provided on board.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

2.2.18.6	Verifying that an operational test of the ballast water management system was carried out based on the installation commissioning procedures and that documented evidence is provided which shows compliance of the treated discharge ballast water during the above mentioned test with regulation D-2 through sampling and analysis based on applicable guidelines developed by the Organization.	
2.2.18.7	Verifying that installation commissioning procedures have been completed.	
<b>3. ANNUAL SURVEY (BWT)</b>		
3.1	Confirming that no unauthorised alteration or modification has been done to the original arrangement including no changes to electrical, controls & monitoring system or hardware and software (version) for computer based systems.	
3.2	Confirming that where any new equipment has been fitted, it has been approved before installation and that any changes are reflected in the certificate.	
3.3	A general external examination of the structure, equipment, systems, fittings, arrangements and material/ process associated with the ballast water management plan, carried out satisfactorily in order to confirm that the BWMS has been maintained and remain in compliance with the requirements of the Convention.	
3.4	Confirming that an examination of non-metallic expansion joints if any in the piping system which penetrates the ship's side and both penetration and non-metallic expansion joint are located below the deepest load water line, has been carried out and these found to be satisfactory. Verification of records showed that these have been replaced at interval as specified by the manufacturer. Last renewal date (dd/mm/yyyy).....	
3.5	Checking whether appropriate entries have been made in the Ballast Record Book.	
3.6	Verification to confirm the satisfactory operation of the control and monitoring equipment including examination of records of the proper functioning or failure of the BWMS carried out and found to be satisfactory.	
3.7	Confirming that, System Design Limitation (SDL) parameters are monitored and recorded by the BWMS to ensure proper operation.	
3.8	Confirming that when bypasses or overrides used in the event of an emergency, the bypass events are recorded by the control and monitoring equipment and within the ballast water record book.	
3.9	Verifying that in the event the control and monitoring equipment is replaced, means are provided to ensure the data recorded prior to replacement remains available on board for 24 months.	
3.10	Confirming that the records of the recording device fitted are satisfactory and adequate supply of consumables for the recording device(s) are available on board.	
3.11	Confirming that a calibration check has been performed in accordance with the approved manual and a valid calibration certificate is available on board.	
3.12	<b>For systems using Active Substance</b>	
3.12.1	Confirming that active substance(s) in accordance with the manufacturer's recommendations are provided on board.	
3.12.2	Confirming that dosage instruction for active substance(s) or preparations are available on board.	
3.12.3	Confirming that storage of the active substance(s) is satisfactory taking into account the risks/hazards involved with the substance as provided in the safety data sheet.	
3.12.4	Examining externally the ballast water treatment system including chemical storage tanks, piping and fittings and confirming as far as practicable its satisfactory operation.	
<b>4. INTERMEDIATE SURVEY (to be filled, in addition to all check items for Annual surveys) (BWT)</b>		
4.1	Examination of the ballast water management system for obvious defects, deterioration or damage including examination of associated pumps, piping and fittings for wear and corrosion and confirming that these found to be satisfactory.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.

<b>5. SPECIAL SURVEY (to be filled, in addition to all check items for Annual &amp; Intermediate surveys) (BWT)</b>		
5.1	Confirming that the operation (by simulation test or equivalent) of the ballast water management system found to be satisfactory.	
5.2	Confirming satisfactory performance of the BWMS components that take measurements in accordance with manufacturer's instructions.	
5.3	Verifying that a valid calibration certificate from the manufacturer or persons authorized by the manufacturer is available on board for BWMS components that take measurements.	
<b>6. INITIAL SURVEY (Ballast Water Exchange)</b>		
6.1	<b>General</b>	
6.1.1	Confirming that ballast water tank arrangement and capacity as provided on the ship correspond to the capacity plan.	
6.1.2	Confirming that the internal arrangement of ballast tanks are such as to minimize accumulation of sediments e.g. adequate provision of scallops and drain holes, absence of stagnant pool or sediment traps, minimal horizontal surfaces, arrangement for effective flushing.	
6.1.3	Confirming that safe access is provided in Ballast Tanks to allow sediment removal and sampling.	
6.1.4	Confirming that the ballast water pumping and piping system including location of intakes, provision of high sea suction points on each side, provision for removal of suspended matter, provision of discharges and arrangement for stripping the tanks correspond to the approved plan.	
6.1.5	Confirming that arrangement exists for discharging Ballast Water to a reception facility in line with the approved plan and the connections for ballast transfer in particular the sections related to flanges and connection methods are compatible with a recognized standard such as those in the Oil Companies International Marine Forum (OCIMF) "Recommendations for Oil Tankers Manifolds and Associated Equipment".	
6.1.6	Where tanks have been designated as permanent ballast carried in sealed tanks, Confirming that these have been so identified in the approved Ballast Water Management Plan including Trim & Stability and Loading manuals and the transfer arrangement if provided have been sealed effectively to avoid unintended discharge of ballast water. Appropriate notices have been displayed to this effect.	
6.2	<b>Process checks:</b>	
6.2.1	<b>Flow Through Method</b>	
6.2.1.1	Confirming that tank volume, available pumps and estimated time, corresponding to volume three times the tank volume is included in ballast water management plan.	
6.2.1.2	Confirming that calculation is available on board that tank is not being subjected to pressure greater than design pressure during flow through method.	
6.2.1.3	Confirm that air vents fitted on ballast tank are approved for such method, if not provision provided for prevention of overflow.	
6.2.2	<b>Dilution Method</b>	
6.2.2.1	Confirming that tank volume, available pumps and estimated time, corresponding to a volume three times the tank volume is included in ballast water management plan.	
6.2.2.2	Confirming that monitoring system to monitor the level in tanks fitted where maintenance of constant level is essential to the safety of ship during BWE.	
6.2.3	<b>Sequential Method</b>	
6.2.3.1	Confirming that loading condition, compliance with stability and strength requirement for each step in the ballast is available on board.	
6.2.4	<b>Sampling Facility</b>	
6.2.4.1	Confirming that sampling facilities are provided as mentioned in the approved Ballast Water Management Plan and so arranged in order to collect representative samples of the ship's ballast water.	

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.



<b>7. ANNUAL SURVEY (BWE)</b>		
7.1	Confirming that sediment arrangement and control of valves and each pump required for ballast water exchange is in satisfactory condition.	
7.2	Confirming that control system for dilution method is in satisfactory condition, if applicable.	
7.3	Confirming that the ballast water pumping and piping system including location of intakes, provision of high sea suction points on each side, provision for removal of suspended matter, provision of discharges and arrangement for stripping the tanks in satisfactory condition.	
7.4	Checking whether appropriate entries have been made in the Ballast Record Book.	
<b>8. INTERMEDIATE SURVEY (to be filled, in addition to all check items for Annual surveys) (BWE)</b>		
8.1	Confirming that accessibility of sampling point and in satisfactory condition.	
8.2	Confirming of satisfactory operation of tank level indicating system, valve position indicating system, draught indicating system and communication to local control station at central ballast control station.	
<b>9. SPECIAL SURVEY (to be filled, in addition to all check items for Annual &amp; Intermediate surveys) (BWE)</b>		
9.1	Confirming of satisfactory operation of local and remote control at each pump used during ballast water exchange.	
9.2	Confirm that manually operated independent means of control of all valves required for ballast water exchange are in satisfactory condition.	
9.3	Confirming that tank level indicating system, valve position indicating system, draught indicating system and communication to local control station are in satisfactory condition.	
<b>10. RECOMMENDATION</b>		
10.1	Confirming that the Class Rule requirements with respect to the additional class notation are complied with and hence the class notation to be assigned/ retained.	

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*Surveyor(s) to Indian Register of Shipping*

Date: .....

Port: .....

# Result to be reported as follows:

Y for Yes or Satisfactory

N for No

NA for Not Applicable

P for Remains outstanding.