



NO.2017-IMO-09

# KR

KOREAN REGISTER OF SHIPPING

## TECHNICAL INFORMATION

36, Myeongji ocean city 9-ro,  
Gangseo-gu, Busan, 618-814,  
The Republic of Korea

Phone : + 82-70-8799-8330

Fax : + 82-70-8799-8339

E-mail : [convention@krs.co.kr](mailto:convention@krs.co.kr)

Date : 31 May 2017

Person in charge : Kim Hoi-Jun

### Subject : Approval of BWMP and Ballast Water Exchange in accordance with Reg.D-1

The BWM Convention(International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. hereinafter BWM Convention), formally adopted in 2004, is the international measures to prevent and minimize the risk from spread of harmful and invasive aquatic species transferred from ships ballast water and will enter into force on 8 September 2017.

Ballast Water Management Plan (hereafter called "BWMP") must be approved by September 8, 2017 in order to be issued with an IBWM Certificate. However, in case of PANAMA and LIBERIA, both BWMP approval and issuance of IBWM Certificate<sup>1)</sup> are being conducted by the flag States themselves. (See Technical Information 2017-IMO-06 and 2017-IMO-08 for details).

So far, percentage of application for BWMP approval has been significantly low, considering the limited time frame until the effective date of the BWM Convention. Ultimately, applications for BWMP approval are expected to hike in the second half of this year. If applications for approval are concentrated within a certain period of time, it may cause inconvenience to the customers due to unavailable approval delay, eventually affecting issuance of IBWM Certificates as well. Therefore, we would appreciate if you could cooperated with Environment & Piping Team, at the earliest possible time, on early application for BWMP approval.

-> Environment & Piping Team / E-mail : [piping@krs.co.kr](mailto:piping@krs.co.kr) / Fax : +82 70 8799 8519

1) In accordance with Reg.E-1, ships of 400 gross tonnage and above to which this Convention applies, excluding floating platforms, FSUs and FPSOs, shall be issued with an IBWM Certificate. However, in accordance with flag instruction(Technical Circular 25) from the Marshall Islands, ships of less than 400 gross tonnage to which this Convention applies shall also be issued with an IBWM Certificate. Ship owners of Marshall Island flagged ships are required to pay full attention to this kind of particular flag requirement.

Furthermore, all ships to which BWM Convention applies on or after the date of entry into force of the Convention shall conduct Ballast Water Exchange in accordance with Reg.D-1. In this regard, we would like to provide our customers with the requirements and references on the Ballast Water Exchange. Ship owners, builders and related stakeholders are kindly invited to pay full attention to implement this Convention accordingly.

– Contents –

## 1. General of IMO BWM Convention

### 1.1 Application

- All ships designed or constructed to carry Ballast Water<sup>2)</sup>

### 1.2 This Convention shall not apply to:

- ships not designed or constructed to carry ballast water;
- ships of a Party which only operate in waters under the jurisdiction of that Party, unless the Party determines that the discharge of Ballast Water from such ships would impair or damage their environment, human health, property or resources, or those of adjacent or other States;
- any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service;
- Permanent Ballast Water<sup>3)</sup> in sealed tanks on ships, that is not subject to discharge

### 1.3 Ballast Water Management Plan<sup>4)</sup>

- Each ship shall have a BWMP on board in accordance with Res.MEPC.127(53) and implement it. Such a plan shall be approved by our classification society and shall be specific to each ship and shall at least:
  - .1 detail safety procedures for the ship and the crew associated with Ballast Water Management as required by this Convention;
  - .2 provide a detailed description of the actions to be taken to implement the Ballast Water Management requirements and supplemental Ballast Water

---

2) Ballast Water means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of the ship. Thus, fresh and public water using as ballast water shall be subject to this Convention as well.

3) With respect to the permanent ballast water, refer to a previous Technical Information (2017-IMO-05). Further refer to an attached file to this information as regard drawing list to be submitted for approval of application of permanent ballast water system. After plan approval, subject to the satisfactory results of the survey, a statement of fact with a validity of less than 5 years specifying that a subject ship is suitable for the operation with permanent ballast water system will be issued by a local surveyor.

4) In accordance with Reg.B-1, BWMP shall be placed on board ships which were designed or constructed to carry ballast water and engaged in the international voyages irrespective of ship gross tonnage.

Management practices as set forth in this Convention;

- .3 detail the procedures for the disposal of Sediments at sea or to shore;
- .4 include the procedures for coordinating shipboard Ballast Water Management that involves discharge to the sea with the authorities of the State into whose waters such discharge will take place;
- .5 designate the officer on board in charge of ensuring that the plan is properly implemented;
- .6 contain the reporting requirements for ships provided for under this Convention;
- .7 be written in the working language of the ship. If the language used is not English, French or Spanish, a translation into one of these languages shall be included

#### 1.4 Ballast Water Record Book<sup>5)</sup>

- Each ship shall have on board a Ballast Water Record Book. The record book entries shall be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter in the Company's control for a minimum period of three years
- In the event of the discharge of Ballast Water pursuant to regulation A-3, A-4 or B-3.6, or in the event of other accidental or exceptional discharge of Ballast Water not otherwise exempted by the Convention, an entry shall be made in the Ballast Water Record Book describing the circumstances of, and the reason for, the discharge
- Each operation concerning Ballast Water shall be fully recorded without delay in the Ballast Water Record Book. Each entry shall be signed by the officer in charge of the operation concerned and each completed page shall be signed by the master

#### 1.5 Exceptions in accordance with Reg.A-3<sup>6)</sup>

- Ballast Water Management shall not apply to:
  - .1 the uptake or discharge of Ballast Water and Sediments necessary for the purpose of ensuring the safety of a ship in emergency situations or saving life at sea; or
  - .2 the accidental discharge or ingress of Ballast Water and Sediments resulting

---

5) In accordance with Reg.B-2, BWRB shall be maintained on board ships which were designed or constructed to carry ballast water and engaged in the international voyages irrespective of ship gross tonnage. Each operation concerning Ballast Water shall be fully recorded without delay in the Ballast Water record book.

6) In accordance with Reg.B-2.3, in the event of the discharge of ballast water subject to the regulation of exception or in the event of other accidental or exceptional discharge of ballast water not otherwise exempted by this Convention, an entry shall be made in the ballast water record book describing the circumstances of, and the reason for, the discharge.

from damage to a ship or its equipment:

1. provided that all reasonable precautions have been taken before and after the occurrence of the damage or discovery of the damage or discharge for the purpose of preventing or minimizing the discharge; and
2. unless the owner, company or officer in charge wilfully or recklessly caused damage; or
- .3 the uptake and discharge of Ballast Water and Sediments when being used for the purpose of avoiding or minimizing pollution incidents from the ship; or
- .4 the uptake and subsequent discharge on the high seas<sup>7)</sup> of the same Ballast Water and Sediments; or
- .5 the discharge of Ballast Water and Sediments from a ship at the same location<sup>8)</sup> where the whole of that Ballast Water and those Sediments originated<sup>9)</sup> and provided that no mixing with unmanaged Ballast Water and Sediments from other areas has occurred. If mixing has occurred, the Ballast Water taken from other seas is subject to Ballast Water Management in accordance with this Annex.

#### 1.6 The requirement for Ballast Water Exchange, D-1

- A ship conducting Ballast Water exchange<sup>10)</sup> to meet the standard in regulation D-1 shall:
  - .1 whenever possible, conduct such Ballast Water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth;
  - .2 in cases where the ship is unable to conduct Ballast Water exchange in accordance with above, such Ballast Water exchange shall be conducted, and as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in

---

7) In accordance with Article 1 of 'Convention on the High Seas', it means all parts of the sea that are not included in the territorial sea or in the internal waters of a States. But, for the sea area where the ships to which this Convention applies shall conduct ballast water exchange, refer to paragraph 1.6 above.

8) BWM Convention does not provide a definition of 'same location', but it should be considered to within port limits. A case where the boundary of port limits is unclear, ship operators are required to contact the port Authority with a view to confirming the instruction on ballast water management in their port limits.

9) During ballast stripping operation, local water may be used as driving water for ejector unit. As a consequence, unmanaged ballast water may be mixed with managed ballast water carried in the ballast water tanks onboard and discharged to sea area. In this particular respect, MEPC 67 had agreed to recommend that ballast water sampling be performed during stripping operation for the purpose of verification to D-2 performance standard. (refer to para 2.30~2.33 in MEPC 67/20)

10) In accordance with Reg.A-2, except where expressly provided otherwise, the discharge of Ballast Water shall only be conducted through Ballast Water Management in accordance with the provisions of this Annex. Thus, a case where discharging ballast water is not required during cargo operation, ballast water exchange would not be required otherwise.

depth;

.3 in sea areas where the distance from the nearest land or the depth dose not meet the parameters described in above, the port State may designate areas, in consultation with adjacent or other States, as appropriate, where a ship may conduct Ballast Water exchange

– Ballast Water exchange shall be conducted as follows:

.1 ships performing ballast water exchange shall do so with an efficiency of at least 95% volumetric exchange of ballast water

.2 for ships exchanging ballast water by the pumping-through method, pumping through three times the volume of each ballast water tank shall be considered to meet the standard, and pumping through less than three times the volume may be accepted provided the ship can demonstrate that at least 95% volumetric exchange is met

.3 the three accepted methods can be described as follows:

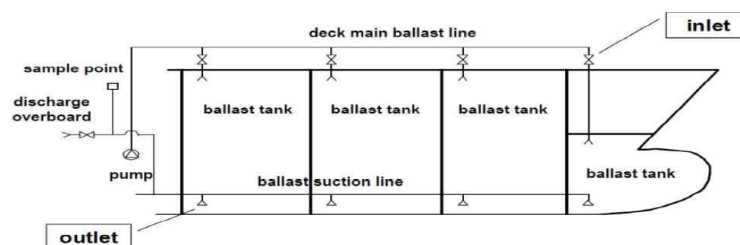
1. Sequential method – a process by which a ballast tank intended for the carriage of ballast water is first emptied and then refilled with replacement ballast water to achieve at least a 95% volumetric change;



2. Flow-through method – a process by which replacement ballast water is pumped into a ballast water intended for the carriage of ballast water, allowing water to flow through overflow or other arrangements;



3. Dilution method – a process by which replacement ballast water is filled through the top of the ballast tank intended for the carriage of ballast water with simultaneous discharge from the bottom at the same flow rate and maintaining a constant level in the tank through out the ballast exchange operation



1.7 For ships which were designed and constructed to carry ballast water but, not discharging ballast water in a specific port area during normal services such as passenger or container ship, those ships are not required to conduct ballast water exchange. But, the following considerations should be taken into account:

- A case where a possibility for discharging ballast water in a specific port area was identified, ballast water exchange should be conducted at least 50 nautical miles from the nearest land and in water at least 200 meters in depth in accordance with Reg.B-4.1.2 in advance. The establishment and management of the thorough operation plan as a quite operational requirement are necessary so that unchanged ballast water will not be discharged in a specific port area;
- During berthing, it should be demonstrated that unchanged ballast water will not be discharged in port area through a provisional sealing of discharging piping arrangement for ballast water to the port Authority, if necessary;
- In particular, the ships which pursue to operate as stated above should be supplemented by the procedures explaining that ballast water will not be discharged in port area during normal services, but otherwise exchanged ballast water in accordance with Reg.D-1 will be discharged, into the BWMP onboard and kindly invited to note that such a operation should be allowed until the date installation for BWMS onboard is required;
- But, a case where ships could not navigate in sea area located at least 50 nautical miles from the nearest land and in water at least 200 meters in depth by the limitation of navigation area (Passenger Ship Safety Certificate marked with 'short international voyage'), ballast water exchange for those ships is practically impossible. In this case, the considerations on the permanent ballast water system or installation of BWMS should be taken into account accordingly

1.8 Fishing vessels which were designed and constructed to carry ballast water are subject to the BWM Convention in principle. But, the following considerations should be taken into account:

- For fishing vessels with RSW<sup>11)</sup> system, RSW tanks are not considered as ballast water tanks as defined by the BWM Convention. But, if those tanks are also used for stability purposes, it meets the definition of the Convention and ballast water inside the tanks shall be exchanged or treated by a BWMS installed onboard before discharge;
- For fishing vessels without ballast water tanks but using cargo tank with RSW system, if some ballast water in cargo tank was designated as departure condition during ballast voyage, it meets the definition of the Convention and

---

11) Refrigerated Sea Water system : for the purpose of preserving large catches, this system are usually located to a capacity of approximately 80% fish and 20% water depending on the type of fish.

ballast water inside the tanks shall be exchanged or treated by a BWMS installed onboard before discharge;

- All other ballast water tanks, anti-rolling tanks etc. shall follow the BWM Convention as usual;
- Fishing vessels which were designed and constructed to carry ballast water as above are subject to the installation of BWMS onboard. BWMP explaining that when captain must use the BWMS or not should be approved by the Administration or classification society accordingly

1.9 In accordance with Reg.E-1 and E-2 of BWM Convention, the ships of less than 400 gross tonnage are excluded from the requirements on survey and certification. But, those ships shall comply with the ballast water management requirements such as BWMP, BWRB, Ballast Water Exchange and installation of BWMS onboard.

## 2. Survey and Certification

- in order that a valid IBWM Certificate is issued to the ships, Ballast Water record Book shall be maintained and **BWMP shall be approved by KR first.** In addition, unless an approved BWMP is prepared onboard, the issuance of a valid IBWM Certificate is impossible. Thus, ship owners are strongly urged to prepare an approved BWMP to be kept onboard by that survey
- if a BWMP is still not approved at the first periodical survey due to other reasons, ship owners are strongly urged to develop a BWMP and get approval as soon as possible before 8 Sep' 2017, and then, to apply to the nearest KR branch office for initial survey with a view to issuing an IBWM Certificate accordingly
- please refer to an attached sample of BWMP to assist development of the plan. Furthermore, new sample format of BWMP reflecting the procedure for use of BWMS installed onboard will be published in near future.

- The end -

Attachment : Sample of BWMP, Drawings for permanent ballast - each 1 copy

Choi Jong-eun  
Executive Vice President  
Statutory Survey Division



*Korean Register of Shipping*

Distributions : KR surveyors, Ship owners, Ship builders, Other stakeholders

Disclaimer :

Although all possible efforts have been made to ensure correctness and completeness of the contents contained in this information service, the Korean Register of Shipping is not responsible for any errors or omissions made herein, nor held liable for any actions taken by any party as a result of information retrieved from this information service.