



## TECHNICAL INFORMATION

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No. : 2019-ETC-05/Rev.1  
Date : 10 June 2019

### Subject : Notification on China's pollutant discharge regulation and strengthening of supervision

The Government of China has issued GB 3552-2018, the discharge standard for water pollutants from ships, which has been entered into force on 1 July 2018. The regulations cover discharge standards of Oily wastewater, Sewage, Wastewater with NLS and Garbage. Among them, regarding sewage discharge, Chinese discharge standards are more strengthened than MARPOL regulations. In this technical information, the sewage discharge standards would be introduced.

The remaining discharges except sewage are considered to be the same as or less influential than the MARPOL emission standards, so they are not described in this technical information. If you are wondering the entire contents of the GB 3552-2018 regulation, please refer to the attached Chinese texts and English translated version<sup>1)</sup>.

Additionally, discharge of garbage in the Bohai bay is strictly prohibited, in addition to the abovementioned sewage discharge regulations, shipowners of ships operating in China need special attention and implementation.

Recently, violation of pollutant discharge regulations in accordance with China's national law has been frequently pointed out during PSC inspection in China, so this technical information is issued in order to invite shipowners' attention and guide regulation contents.

#### 1. GB 3552-2018, control requirements for discharge of sewage

1) Comparison table of MARPOL regulation and Chinese discharge standard

Sewage system		3 n miles from the nearest land (including port)	3 ~ 12 n miles from the nearest land	out of 12 n miles from the nearest land
Treatment plant	MARPOL	available	available	available
	China	Discharge under certain condition		

1) English translated version is not translated directly by KR, and refer to other translated version.

Comminuting and disinfecting system	MARPOL	No discharge	available	available
	China			
Holding tank	MARPOL	No discharge	No discharge	available
	China			

The difference between MARPOL regulations and Chinese regulations related to sewage discharge is the possibility of discharging in port. MARPOL regulations permit the discharge of sewage from a sewage treatment plant in port, but according to Chinese regulations, the discharge of sewage in port is prohibited in the inland water of China.

- 2) Treatment methods of sewage within 3 miles in accordance with Chinese regulations should be;
- Storing it in holding tank onboard and then disposed it at out of 3 miles; or
  - Disposing the sewage to the land base facilities; or
  - **Disposing the sewage through STP when the ship in en-route, provided the requirement 3) is met.**
    - If the ship has a STP, it is prohibited to discharge it during berthing, but it can be discharged if the type approved equipment is installed according to the Chinese standards' below within 3 nautical miles.

3) In case of ships equipped with a Sewage Treatment Plant(STP), as the IMO resolution on the performance standards of the device continues to be revised, the discharge standards are different depending on when the type approval is made. The Chinese regulation (GB 3552-2018) have some differences from the IMO resolution. Please refer to the comparison chart below for your understanding.

IMO resolution number	Installed date by IMO standards*	Installed date by Chinese standards*	Remarks
Res.MEPC.2(6)	~ 2010.1.1	~ 2012.1.1	- Same discharge standards
Res.MEPC.159(55)	2010.1.1.~2016.1.1	2012.1.1.~2021.1.1	- Same discharge standards - Applies to all ships
Res.MEPC.227(64)	2016.1.1.~	2021.1.1.~	- Some discharge standards are different** - only for passenger ships by Chinese regulations

\* Equipment to be installed on the ship in accordance with the reference date shall comply with the relevant IMO resolution number and has been type-approved to meet discharge standards

\*\* Refer to below table for seeing different discharge standards

No	Pollutants	IMO standard	Chinese standard
1	Thermotolerant Coliform	1000 /l	1000 /l
2	pH	6 ~ 8.5	6 ~ 8.5
3	Total Chlorine	< 0.5	< 0.5
4	Total Nitrogen	20 Qi/Qe mg/l	20 mg/l
5	Total Phosphorus	1.0 Qi/Qe mg/l	1.0 mg/l

6	5-day Biochemical Oxygen Demand (BOD <sub>5</sub> )	25 Qi/Qe mg/l	20 mg/l
7	Chemical Oxygen Demand (COD <sub>cr</sub> )	125 Qi/Qe mg/l	60 mg/l
8	Suspended Solids (SS)	35 Qi/Qe mg/l	20 mg/l
9	Ammoniacal nitrogen	N/A	15 mg/l

4) Discharge of sewage in areas protected by source of drinking water is strictly prohibited, and the treatment of sewage from ships should be recorded.

## 2. Technical consideration for compliance with sewage discharge requirements

There is a similar example to the sewage discharge regulation of GB 3552-2018 that the United States has already banned sewage discharging from 2012. US regulations also prohibit the discharge of sewage within 3 miles, it is permitted to discharge sewage with sewage treatment approved as marine sanitation device (MSD) by USCG within 3 nautical miles.

In order to satisfy the regulations of sewage discharge, shipowners could consider the most appropriate and feasible method under their judgement considering various possible technical measures depending on the situation of the ship and the operation pattern. In the case of the above-mentioned prohibition of sewage discharge in the US, there are examples that have been considered so far.

- (1) Alteration of use for the Cofferdam tank or void space to Sewage
  - T/S(Trim & Stability) is needed to be revised and re-approved.
  - : revision of Tank volume sum, Tank volume table, etc.
- (2) Alteration WBT to combined use for WBT and Sewage
  - No further action is needed.
  - However, this operation is not able to use upon the applied date of D-2 regulation of BWMS by BWTS for the ship.
- (3) Alteration of use for WBT to Sewage; or
  - BWMP is needed to be revised and re-approved.
  - T/S, L/C, Damage documents may be needed to be re-approved, if applicable.
- (4) Installation of a Portable tank
  - No further action is needed.

These are examples only and there may be other ways. In addition, there is no single solution, therefore shipowners and ships should decide the most suitable plan considering the ship's operation pattern as needed and to implement the regulations.

### 3. Discharge regulation of garbage in Bohai bay

In August 2015, China P&I club, Huatai Insurance Agency & Consultant Service LTD. issued a circular on the Chinese governments's announcement on the ban on garbage disposal in Bohai bay. Here is a brief summary.

- 1) Bohai bay is an inner area around the line connecting the southernmost end of Liaodong Peninsula and the northermost end of the Shandong peninsula, as shown in the figure below.



(source : wikipedia)

- 2) The Chinese government had designated Bohai Bay as the inland sea of China, and strictly prohibits the discharge of garbage.
- 3) For more information, please refer to the link below.

### 4. Penalties for violation of the regulations

Recently, fines have been imposed on ships when violations of the sewage disposal regulations are detected during PSC inspection in China. Please refer to the penal regulations for violation Chinese regulations as below.

- 1) Article 73 of Marine Environment Protection Laws

When a violation is detected, the corrective action can be ordered within a specified period and a fine can be imposed. if the violator refuses to take corrective action, additional fines may be levied on a daily basis, and in serious cases, a suspension order may be issued.

- Discharge any pollutants which is prohibited by the law : RMB 30,000~200,000
- Discharge pollutants in excess of standards or volume : RMB 20,000~100,000

2) Article 90 of Water Pollution Prevention and Control Law

Penalties may be imposed for the detection of violations. In case of water pollution, corrective action can be ordered within specified period and penalties can be imposed. If the violator fails to implement the corrective action, the authority may impose it on the ship after the preliminary action.

- Detection of violations : RMB 10,000~100,000
- Water pollution : RMB 20,000~200,000

3) Chapter 7, Article 45 of Provisions of the Prevention and Control of Vessel-induced Pollution to the Inland Water Environment

Fines may be imposed on discharges of sewage or oil containing sewage, noxious liquid substances, ballast water, tank washing water, and other mixtures in excess of the standard into inland water areas.

- Fines : RMB 20,000~30,000

- \* Attachment : 1. GB 3552-2018 (Original Chinese version)  
2. GB 3552-2018 (English translated version)

Distributions : KR surveyors, Ship owners, Ship builders, Other relevant parties

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