Amendment of Ballast Water Management Convention

Presented by

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Deep Blue

Contents

(Source _ http://www.google.co.kr/url?sa)

Marine Pollution results from untreated ballast water discharge(Australia)

- about 55 species
- Untreated ballast water discharge
- Over 250 species

Table 5
Species that did not satisfy all criteria due to uncertainty regarding taxonomy, impact status and/or presence/absence in Australia

Species	Phylum	Disagreement/uncertainty over
Philine auriformis	Mollusca	Harmful status, taxonomy, Presence/absence in Australia
Thalassiosira nordenskioldii	Stramenopiles	Harmful status
Fragilariopsis oceanica	Stramenopiles	Harmful status
Ceratium arcticum	Alveolates (Dinoflagellata)	Harmful status
Pfiesteria schumwayae	Alveolates (Dinoflagellata)	Presence/absence in Australia
Cladophora patentiramea	Chromobionta	Presence/absence in Australia
Coscinodiscus wailesii	Stramenopiles	Presence/absence in Australia
Upeneus moluccensis	Chordata	Presence/absence in Australia

(Source _ Marine Pollution Bulletin 46(2003) 91-98)

Process Of BWM Convention Adoption

in 1988 year

At first, Canada and Australia discussed the issues at MEPC

in 1993 year

Next step, The resolution was adopted

in 2004 year

After It has been consistently discussed along with other issues, BWM Convention was adopted

02 | Ratification of BWM Convention

Päivi Luostarinen, Finland's permanent representative to IMO, handed over its instrument of acceptance to the BWMC to IMO secretary-general Kitack Lim (credit: IMO)

(Source _ http://www.imo.org/en/Pages/Default.aspx)

01. Ratification by Finland on 8 Sept 2016 brings the combined tonnage of contracting states to the convention to 35.1441%, with 52 contracting parties

02. As a consequence,
this convention will enter into force
on 8 September 2017 internationally

D-1. Ballast Water Exchange

01. Ships performing ballast water exchange in accordance with this regulation

02. Efficiency of at least 95 percent volumetric exchange of ballast water

D-2. Treatment Plant Installation Standards

01. Discharge less than 10 viable organisms per m^3 (more than 50 μm)

02. Discharge less than 10 viable organisms per $m\ell$ (10 μm ~50 μm)

03. Discharge of the indicator microbes shall not exceed the specified concentrations described in paragraph 2.

(Source _ from Korea Register of Shipping)

The discussions After Entry Into Force

Comprehensive

Technical

Human element

04-1 Comprehensive Issues

Installation Period

01. There are on more than 50,000 ships adopting this convention in the world, It is **impossible to install a BWMS** on all ships in 12months

02. To encourage them to be installed at a renewal inspection by the IOPP (updated 5 years)

03. This was relaxed to begin **from 2 years** after entry into force which is **September 8, 2019 at MEPC 70.**

Installation Cost

01. Installation cost is also serious impact to ship owners.

02. For a Panamax-class vessel this can amount to **$ 800,000 per ship**

(Source _ MEPC 70, MEPC 68)

04-2 Technical Issues

Increasing Standards

Performance Issues

01. The current situation **does not satisfy** The United States Cost Guard **discharge standards of BWMS**
02. BWMS does not have same performance as when they were installed
03. Performance standard of IMO does **not fulfil those of USCG**

Sampling

Specific Sampling Method

01. There`s **no specific method** how to conduct sampling by the PSC

(Source _ MEPC 70, MEPC 68 / 2 / 9)

04-3 Human`s element

01

- Seafarers are not familiar with the newly installed system
- The purpose & requirements of the convention

02

Lack of TRO sensor management
(MEPC 68 / 2 / 9)

03

Inexperience about
the new BWMS

(Source _ MEPC 70, MEPC 68 / 2 / 9)

04-3 Human element

Overview

- Japan currently undertakes sampling analysis of ballast water prior to entry into force of the BWM Convention (from August 2013)

conclusion

- Improper operation by crew (TRO sensor, Manual, etc)
- It should be prepared to method of PSC and Crews train for smooth implementation of the Convention

(Source _ MEPC 68 / 2 / 9 Japanese voluntary activity)

The example of processing technic & TRO sensor

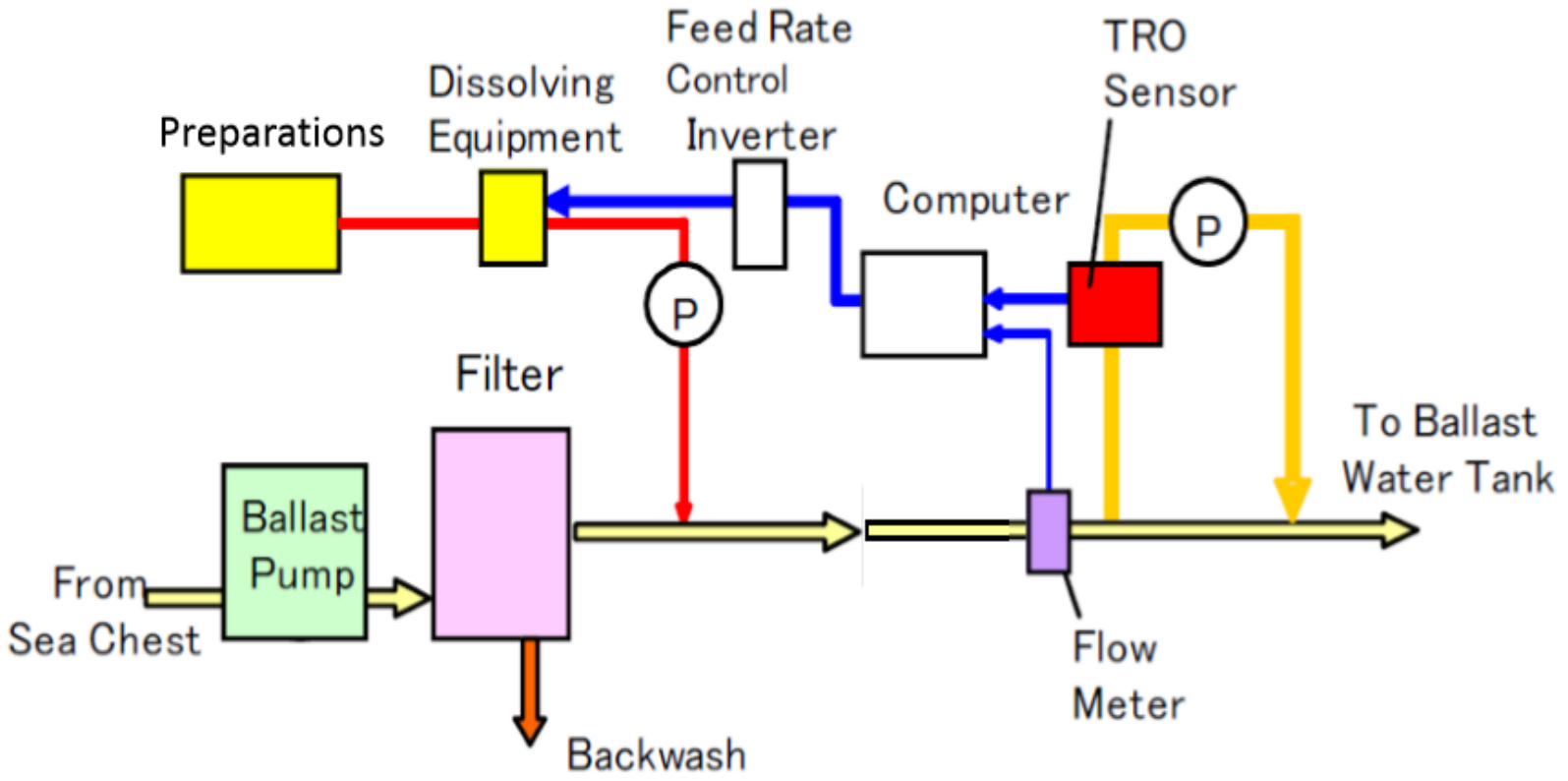

Figure 2: Schematic diagram of BWMS B (Test no. 3)

(Source _ MEPC 68 / 2 / 9)

We propose the training program as follows

- Introduce **training programs** related to seafarers

+

- **The use of electronic ballast water record books**

Proposals

01

The training program is needed to improve the competence of crews in BWMS

02

After finishing the training program, **Certificate should be issued** (Validity of it would be 5 years)

03

Deck officer and Engineers are responsible for operating BWMS

BWM Convention

STCW Convention

Amendment of BWM Convention

01

- The present BWM Convention does not have specific provisions of operation of BWMS equipment and crew training

02

- It need to be mandatory that deck officers and engineers on ships equipment with BWMS should take BWMS training program and be issued the certificate

Introduce a training program in article 6(Approval and Certification Procedures) of G-8 (Res.MEPC.174(58))

Amendment of BWM Convention

6.6 An approved BWMS may be Type Approved by other Administrations for use on their vessels. Should a system approved by one country fail Type Approval in another country, then the two countries concerned should consult one another with a view to reaching a mutually acceptable agreement.

7 INSTALLATION REQUIREMENTS

Sampling facilities

- The training programme should be **article 6 of G-8(Res. MEPC. 174(58))**, Approval and Certification Procedures

Amendment of BWM Convention

6.7 The deck officer on ships with BWMS should have BWMS training and be issued certificate.

The training programme should contain the followings

- **The Contents of BWM Convention**
- **Performance Standards of BWMS**
- **Types of BWMS technology currently approved**
- **General Principles of operating BWMS**
- **TRO sensor management method**
- **Sampling method**
- **Entries in the Ballast Water record book**
- **The contents of entries in the Ballast Water record book**

•The training programme should be
article 6 of G-8(Res. MEPC. 174(58)), Approval and Certification Procedures

Amendment of STCW Convention for Deck Officer

4 Training and experience to achieve the necessary level of theoretical knowledge, understanding and proficiency shall be based on section A-VIII/2, part 3-1 - Basic principles to be observed in keeping a navigational watch and shall also take into account the relevant requirements of this part and the guidance given in part B of this Code.

5 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/1.

On-board training

6 Every candidate for certification as officer in charge of a navigation watch of ships of 500 gross tonnage or more whose seagoing service, in accordance with paragraph 2.2 of regulation II/1, forms part of a training programme approved as meeting the requirements of this section shall follow an approved programme of on-board training which:

- The training programme should be added to STCW Part A / A - Ⅱ / 1, paragraph 5-1

Amendment of STCW Convention for Deck Officer

5-1 The deck officer on ships with BWMS should have BWMS training and be issued certificate.

The training programme should contain the followings

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•The training programme should be added to STCW Part A / A - Ⅱ / 1, paragraph 5-1

Amendment of STCW Convention for Engineers

8 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-III/1.

Near-Coastal voyages

9 The requirements of paragraphs 2.2 and 2.3 of regulation III/1 may be varied for engineer officers of ships powered by main propulsion machinery of less than 3,000 KW propulsion power engaged on near-coastal voyages, bearing in mind the effect on the safety of all ships which may be operating in the same waters. Any such limitation shall be stated on the certificate and in the endorsement.

- **The training programme should be added to STCW Part A / A - Ⅲ / 1 paragraph 8-1**

Amendment of STCW Convention for Engineers

8-1 The deck officer on ships with BWMS should have BWMS training and be issued certificate.

The training programme should contain the followings

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- **Performance Standards of BWMS**
- **Types of BWMS technology currently approved**
- **General Principles of operating BWMS**
- **TRO sensor management method**
- **Sampling method**
- **Entries in the Ballast Water record book**
- **The contents of entries in the Ballast Water record book**

•The training programme should be added to STCW Part A / A - Ⅲ / 1 paragraph 8-1

The use of electronic record book

Expected effect

- Reduce procedures for work related to Ballast Water Management
- Use it on a portable device includes method for backing-up data and data recovery in emergency situation

In case of PSC

- Vessels print the saved list as a form of hard copy
- the printed document should contain the significant data

• Ballast water electronic record book will boost **work efficiency** of crews

“Safe, Secure and Efficient Shipping On Clean Oceans”

“ Thanks for listening ”
Q & A