

RULES FOR BALLAST WATER MANAGEMENT INSTALLATIONS

GUIDANCE FOR BALLAST WATER MANAGEMENT INSTALLATIONS

Rules for Ballast Water Management Installations

2019 AMENDMENT NO.1

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Rule No.43 / Notice No.28 14 June 2019

Resolved by Technical Committee on 30 January 2019

ClassNK
NIPPON KAIJI KYOKAI

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

RULES FOR BALLAST WATER MANAGEMENT INSTALLATIONS

RULES

2019 AMENDMENT NO.1

Rule No.43 14 June 2019

Resolved by Technical Committee on 30 January 2019

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

“Rules for ballast water management installations” has been partly amended as follows:

Part 1 GENERAL

Chapter 2 TERMINOLOGY AND ABBREVIATIONS

2.1 General

Paragraph 2.1.1 has been amended as follows.

2.1.1 Terminology (*Article 1 of BWM Convention and Regulation A-1 of Annex*)

For the purpose of the Rules, the following definitions apply unless otherwise stated in each Part:

~~1~~ The following ~~(1) to (22)~~ definitions apply for approved *BWMS* based on ~~IMO Res. MEPC.174(58) “Guidelines for Approval of Ballast Water Management Systems (G8)”~~.

~~((1) to (21) are omitted.)~~

~~(22)~~ “Ballast water management plan” means the ~~document~~plan referred to in **Chapter 4, Part 3 of the Rules** describing the ballast water management process and procedures implemented on board individual ships.

~~2~~ In addition to ~~(1) to (12) and (18) to (22)~~ of ~~1~~ above, the following ~~(1) to (3)~~ definitions apply for approved *BWMS* based on ~~IMO Res. MEPC.279(70) “2016 Guidelines for Approval of Ballast Water Management Systems (G8)”~~, as amended.

~~(23)~~ “Ballast water management system” (*BWMS*) means any system which processes ballast water such that it meets or exceeds the ballast water performance standards given in **3.2, Part 3 of the Rules**. The *BWMS* includes ballast water treatment equipment, all associated control equipment, piping arrangements as specified by the manufacturer, control and monitoring equipment and sampling facilities. Also, *BWMS* does not include the ship’s ballast water fittings, which may include piping, valves, pumps, etc., that would be required if the *BWMS* was not fitted. (Where *IMO Res. MEPC.279(70) “2016 Guidelines for Approval of Ballast Water Management Systems (G8)”* or the *BWMS Code* is applicable.)

~~(24)~~ “Control and monitoring equipment” means the equipment installed for the effective operation and control of the *BWMS* and the assessment of its effective operation.

~~(3)~~ “Sampling facilities” means ~~provided for sampling treated or untreated ballast water.~~

~~(25)~~ “System Design Limitations of a *BWMS* (hereinafter referred to as “*SDL*”)” means the limitations specified in **11.1.2(16), Part 2 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.**

~~(26)~~ “*BWMS Code*” means the “Code for Approval of Ballast Water Management Systems”, adopted by resolution *MEPC.300(72)*, as may be amended by the IMO, provided that such amendments are adopted and brought into force in accordance with Article 19 of the *BWM Convention* relating to amendment procedures applicable to the annex.

Part 2 SURVEYS

Chapter 2 REGISTRATION SURVEYS

2.1 Registration Surveys during Construction

2.1.3 Inspections of Equipment

Sub-paragraph -2 has been amended as follows.

2 For ships conducting the ballast water management specified in **Chapter 3, Part 3 of the Rules**, the following inspections are to be carried out:

((1) to (7) are omitted.)

(8) The workmanship of the installation is satisfactory and, in particular, that any bulkhead penetrations or penetrations of the ballast system piping are to the relevant approved standards; and

(9) The installation commissioning procedures have been completed.

(~~10~~) Other inspections deemed necessary by the Society.

2.1.5 Documents to be Maintained On Board

Sub-paragraphs (3) and (4) have been amended as follows.

Upon completion of a Registration Survey, the Surveyor confirms that the following documents, etc., are maintained on board:

((1) and (2) are omitted.)

(3) For ships conducting the ballast water management specified in **Chapter 3, Part 3 of the Rules** by approved *BWMS* based on *IMO Res. MEPC.174(58) "Guidelines for Approval of Ballast Water Management Systems (G8)"*, the following (a) to (h) documents:

(a) A copy of the certificate for type approval specified in **2.1.2-2(1)**;

(b) A statement confirming that the electrical and electronic components of the ballast water management system have been tested in accordance with the specifications for environmental testing specified in *IMO Res. MEPC.174(58) "Guidelines for Approval of Ballast Water Management Systems (G8)"*, as amended;

(c) Equipment manuals for the major components of the ballast water management system;

(d) An operations and technical manual for the ballast water management system, containing a technical description of the ballast water management system, operational and maintenance procedures, and backup procedures in case of equipment malfunction;

(e) Installation specifications for the ballast water management system;

(f) Installation ~~and test operation~~ commissioning procedures for the ballast water management system;

(g) Initial calibration procedures of the ballast water management system; and

(h) Dosage and storage instructions for active substances or preparation of the ballast water management system.

(4) For ships conducting the ballast water management specified in **Chapter 3, Part 3 of the Rules** by approved *BWMS* based on *IMO Res. MEPC.279(70) "2016 Guidelines for Approval of Ballast Water Management Systems (G8)"* or the *BWMS Code*, ~~as amended~~, the following

(a) to (e) documents:

- (a) A copy of the certificate for type approval specified in **2.1.2-2(1)**;
- (b) An operations and technical manual for the ballast water management system, containing a technical description of the ballast water management system, operational and maintenance procedures, and backup procedures in case of equipment malfunction;
- (c) Installation specifications for the ballast water management system, e.g. installation drawing, piping and instrumentation diagrams, etc.;
- (d) Installation ~~and test operation~~ commissioning procedures for the ballast water management system; and
- (e) Dosage and storage instructions for active substances or preparation of the ballast water management system.

Part 3 EQUIPMENT FOR THE BALLAST WATER MANAGEMENT

Chapter 3 BALLAST WATER MANAGEMENT

3.3 Ballast Water Management Systems (*Regulation D-3 of Annex*)*

Sub-paragraphs -1 and -2 have been amended as follows.

1 General requirements

(1) ~~The BWMS is to be approved by the Administration or the Society in accordance with IMO Res. MEPC.174(58) “Guidelines for Approval of Ballast Water Management Systems (G8)”~~ Except as specified in (2) below, a BWMS is to be approved by the Administration or the Society in accordance with following (a) or (b):

~~(2a) The~~ A BWMS which is installed on or after 28 October 2020 is to be approved in accordance with the BWMS Code; however, a BWMS approved taking into account the “2016 Guidelines for Approval of Ballast Water Management Systems (G8)” adopted by IMO Res. MEPC.279(70) is deemed to be in accordance with the BWMS Code. ~~by the Administration or the Society in accordance with IMO Res. MEPC.279(70) “2016 Guidelines for Approval of Ballast Water Management Systems (G8)”, as amended.~~

(b) A BWMS installed before 28 October 2020 is to be approved taking into account the guidelines developed by the IMO or the BWMS Code.

~~(32)~~ Any BWMS using active substances or preparations is to be approved by the IMO in accordance with IMO Res. MEPC.169(57) “Procedure for Approval of Ballast Water Management Systems that Make Use of Active Substances (G9)”, as amended.

~~(43)~~ The BWMS is to be safe in terms of the ship, its equipment and the crew.

2 Construction and performance requirements

(1) The BWMS which is approved based on IMO Res. MEPC.174(58) “Guidelines for Approval of Ballast Water Management Systems (G8)” is to comply with the following (a) to (o) requirements.

((a) to (o) are omitted.)

(2) In addition to (a), (b) and (d) of (1) above, the BWMS which is approved based on IMO Res. MEPC.279(70) “2016 Guidelines for Approval of Ballast Water Management Systems (G8)” or the BWMS Code, ~~as amended~~ is to comply with the following (a) to (i) requirements.

((a) to (i) are omitted.)

3.4 Prototype Ballast Water Treatment Technologies (*Regulation D-4 of Annex*)

Sub-paragraph -2 has been amended as follows.

2 For any ship that, after the date on which the standard specified in 3.2 has become effective for it, participates in a programme approved by the Administration, taking into account Guidelines ~~specified in 3.3 1(1), (2) and (3)~~ developed by the IMO, to test and evaluate promising ballast water technologies with the potential to result in treatment technologies achieving a standard higher than that specified in 3.2, the standard specified in 3.2 is to cease to apply to that ship for five years from the date of installation of such technology.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 13 October 2019.

GUIDANCE FOR BALLAST WATER MANAGEMENT INSTALLATIONS

GUIDANCE

2019 AMENDMENT NO.1

Notice No.28 14 June 2019

Resolved by Technical Committee on 30 January 2019

AMENDMENT TO THE GUIDANCE FOR BALLAST WATER MANAGEMENT INSTALLATIONS

“Guidance for ballast water management installations” has been partly amended as follows:

Part 3 EQUIPMENT FOR THE BALLAST WATER MANAGEMENT

Chapter 3 BALLAST WATER MANAGEMENT

Section 3.3 has been amended as follows.

3.3 Ballast Water Management System (*Regulation D-3 of Annex*)

1 The requirements of this section from ~~-3~~ to ~~-79~~ apply to **(1)** or **(2)** below:

- (1)** *BWMS* of which an application for approval for the plans is made on or after 1 January 2017;
or
- (2)** *BWMS* which is installed in ships contracted for construction on or after 1 January 2017.

2 The wording “installed” in ~~3.3-1(21)(a) and (b)~~, **Part 3 of the Rules** refers to either the following **(1)** or **(2)**.

- (1)** The contractual date of delivery of the *BWMS* to the ship
- (2)** In the absence of the date of **(1)** above, the actual date of delivery of the *BWMS* to the ship

3 The wording “the guidelines developed by the *IMO*” in **3.3-1(1)(b)**, **Part 3 of the Rules** refers to *MEPC.174(58)* or *MEPC.279(70)*.

~~34~~ Where the system uses chemical substances indicating possible unacceptable adverse effects to human health and the equipment in “*BWMS* using active substances or preparations” specified in ~~3.3-1(32)~~, **Part 3 of the Rules**, the following requirements **(1)** to **(9)** are to be satisfied. The following requirements may be appropriately relaxed depending of the chemical substances.
(~~(1)~~ to ~~(9)~~ are omitted.)

~~45~~ Where the system generates dangerous gas in “*BWMS* using active substances or preparations” specified in ~~3.3-1(32)~~, **Part 3 of the Rules**, the following requirements **(1)** to **(9)** are to be satisfied.

(~~(1)~~ to ~~(9)~~ are omitted.)

~~56~~ (Omitted)

~~67~~ (Omitted)

~~78~~ In applying **3.3-3**, **Part 3 of the Rules**, design and installation of *BWMS* are to comply with followings in addition to the relevant requirements of **the Rules for the Survey and Construction of Steel Ships**.

(1) Related piping of *BWMS* is to comply with followings.

- (a)** Piping is to be designed in accordance with approval conditions for *BWMS* in **3.3-1(1)**, and **(2)** and ~~(3)~~ in **Part 3 of the Rules**.

(~~(b)~~ to ~~(g)~~ are omitted.)

(2) For ships fitted with dangerous ballast tanks, where the ballast water is passed through a system for measuring total residual oxidants (*TRO*) or total residual chlorine (*TRC*) before discharge, the requirements for the system in non-hazardous area such as engine room are as given below.

- (a)** The sampling facility (for *BWMS* monitoring/control) is to be located within a gas tight

enclosure (hereinafter, referred to as a cabinet), and the following **i)** to **iii)** are to be complied with.

(i) and ii) are omitted.)

iii) Audible and visual alarm signals are to be activated at the spaces specified in **3.3-45(2)(a)** and **(b)** when the concentration of explosive gases reaches a pre-set value, which should not be higher than 30% of the lower flammable limit (LFL) of the concerned product.

((b) to (k) are omitted.)

((3) to (8) are omitted.)

89 “*BWMS* is to be approved by the Society” specified in **3.3-1(1) and (2)**, **Part 3 of the Rules** means the systems which are approved in accordance with **Chapter 11, Part 2 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use**.

Fig.3.3-2(1) *BWMS* which does not require after-treatment

(Omitted)

Fig.3.3-2(2) *BWMS* which require after-treatment (Injection type)

(Omitted)

Section 3.4 has been added as follows.

3.4 Prototype Ballast Water Treatment Technologies (Regulation D-4 of Annex)

The wording “guidelines developed by the *IMO*” in 3.4-2, Part 3 of the Rules refers to 3.3-3.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 13 October 2019.