RULES FOR MARINE POLLUTION PREVENTION SYSTEMS

RULES

2018 AMENDMENT NO.2

Rule No.101 29 June 2018

Resolved by Technical Committee on 31 January 2018

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

Rule No.101 29 June 2018
AMENDMENT TO THE RULES FOR MARINE POLLUTION PREVENTION SYSTEMS

"Rules for marine pollution prevention systems" has been partly amended as follows:

Amendment 2-1

Part 1 GENERAL

Chapter 1 GENERAL

1.1 General

1.1.4 Class Notations

Sub-paragraphs -2 and -3 have been amended as follows.

2 Based on **2.1.3-2 of the Rules for the Classification and Registry of Ships**, "*Nitrogen Oxides Emission-Tier III*" (abbreviated as "*NOx-III*") is to be affixed to the classification characters of ships installed with ~~marine~~ diesel engines satisfying the maximum allowable NOx emission limit criteria specified in **2.1.2-1(1)(c) of Part 8** which are permitted to operate in NOx emission control areas. For ships using selective catalytic reduction systems, exhaust gas recirculation systems, dual fuel engines or gas-only engines to satisfy the maximum allowable NOx emission limits criteria specified in **2.1.2-1(1)(c), Part 8**, the ~~following~~ notations referred to in **(1)** to **(4)** below are listed in parentheses after *NOx-III* according to the installed equipment/engine. The purposes of engines fitted with the systems referred to in **(1)** and **(2)** below and the engines referred to in **(3)** and **(4)** below are to be entered in the Classification Register as descriptive notes for the ship.

(1) Ships using selective catalytic reduction systems complying with **1.3.1-10(1), Part D of the Rules for the Survey and Construction of Steel Ships**, **1.2.1-11(1), Part 9 of the Rules for High Speed Craft**, or **1.3.1-8(1), Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships**:
Selective Catalytic Reduction (abbreviated as "*SCR*")

(2) Ships using exhaust gas recirculation systems complying with **2.1.1-5, Part D of the Rules for the Survey and Construction of Steel Ships**, **2.1.1-4, Part 9 of the Rules for High Speed Craft**, or **2.1.1-5, Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships**:
Exhaust Gas Recirculation (abbreviated as "*EGR*")

(3) Ships using dual fuel engines complying with **16.1** and **16.7, Part N of the Rules for the Survey and Construction of Steel Ships** or **1.1.3-1(20), Part GF of the Rules for the Survey and Construction of Steel Ships**:
Dual Fuel Engine (abbreviated as "*DFE*")

(4) Ships using gas-only engines complying with **1.1.3-1(20), Part GF of the Rules for the Survey and Construction of Steel Ships**:
Gas-only Engine (abbreviated as "*GOE*")

3 Based on **2.1.3-2 of the Rules for the Classification and Registry of Ships**, "*Sulphur Oxides*" (abbreviated as "*SOx*") is to be affixed to the classification characters of ships provided with the following **(1)** and/or **(2)** that comply with the requirements related to sulphur content

specified in **1.2.2-1(1)(c), Part 8** or **2.2-1(3), Part 8** or that are compliance methods at least equivalent to those complying with such requirements. The notations referred to in **(1)** and **(2)** below are listed in parentheses after *SOx* according to the provided arrangement/system. Details of the fuel referred to in **(1)** below as well as the purposes of machinery using the fuel referred to in **(1)** below and machinery fitted with the systems referred to in **(2)** below are to be entered in the Classification Register as descriptive notes for the ship.

(1) Arrangements for using the low-flashpoint fuel referred to in **2.2.1-28, Part GF of the Rules for the Survey and Construction of Steel Ships** that comply with **Chapter 16, Part N of the Rules for the Survey and Construction of Steel Ships** or comply with **Part GF of the Rules for the Survey and Construction of Steel Ships**:
"*Low-Flashpoint Fuel*" (abbreviated as "*LFF*")

(2) Exhaust gas cleaning systems approved by the Administration as an alternative specified in **1.1.3, Part 8** that comply with **1.3.1-10(2), Part D of the Rules for the Survey and Construction of Steel Ships, 1.2.1-11(2), Part 9 of the Rules for High Speed Craft** or **1.3.1-8(2), Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships**:
"*Exhaust Gas Cleaning System*" (abbreviated as "*EGCS*")

~~**3** Based on **2.1.3-2 of the Rules for the Classification and Registry of Ships**, "*Exhaust Gas Cleaning System*" (abbreviated as "*EGCS*") is to be affixed to the classification characters of ships installed with exhaust gas cleaning systems approved by the Administration as an alternative specified in **1.1.3, Part 8** and complying with **1.3.1-10(2), Part D of the Rules for the Survey and Construction of Steel Ships, 1.2.1-11(2), Part 9 of the Rules for High Speed Craft**, or **1.3.1-8(2), Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships**.~~

EFFECTIVE DATE AND APPLICATION (Amendment 2-1)

1. The effective date of the amendments is 29 June 2018.

2. Notwithstanding the amendments to the Rules, the current requirements apply to ships other than those the delivery of which is on or after the effective date.

3. Notwithstanding the provision of preceding **2.**, the amendments to the Rules may apply to ships other than those the delivery of which is on or after the effective date upon request of the owner.

Amendment 2-2

Part 1 GENERAL

Chapter 1 GENERAL

Section 1.2 has been deleted.

~~**1.2 Issue of Certificate**~~

~~**1.2.1 Engine International Air Pollution Prevention Certificate** (*EIAPP Certificate*)~~

~~**1** The *EIAPP certificate* will be issued by the Society, under the authority of the flag state of the ship, to the diesel engine which passed the test, confirmation and examination listed in **2.1.3-5(3)** excluding **(d)iii)**, **Part 2**.~~

~~**2** The diesel engine manufacturer, etc. (those listed in **1.1.2(4), Part 8**, hereinafter the same) or the owner or the master of a ship, when the *EIAPP certificate* is soiled or lost, is to submit a written application for the reissue of the certificate to the Society in due course together with the *EIAPP certificate* (if it is soiled) and approved technical file.~~

~~**3** The diesel engine manufacturer, etc. or the owner or the master of a ship, when the descriptions of the *EIAPP certificate* are changed, is to submit a written application for rewriting the certificate to the Society together with the *EIAPP certificate* and approved technical file.~~

~~**4** The diesel engine manufacturer, etc. or the owner or the master of a ship, who encounters any of the following, is to return the *EIAPP certificate* issued by the Society at the earliest convenience.~~

~~(1) The diesel engine, to which an *EIAPP certificate* has been issued, is scrapped or demolished.~~

~~(2) NOx emission from the diesel engine falls into a state of exceeding the limit specified in **2.1.2-1, Part 8**.~~

~~(3) The diesel engine manufacturer, etc. or the owner or the master of a ship finds out the original *EIAPP certificate* after obtaining the replacement thereof in accordance with the provisions of **-2** (In this case, the original *EIAPP certificate* is to be returned to the Society.)~~

~~(4) Aside from those stated above, when it is specifically requested by the Society to return the *EIAPP certificate*.~~

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 1 GENERAL

1.1 General

1.1.2 Terminology (*Regulation* 2, 13, 14 and 16 of *Annex* VI and 1.3, 4.1, 4.3.9 and 4.4.8 of *NOx Technical Code*)*****

Sub-paragraph (4) has been amended as follows.

(4) "Diesel engine manufacturer, etc." means the engine manufacturer, etc. specified in **1.2.1(4) of the Rules for Marine Engine Emission Verification** ~~diesel engine manufacturer or other responsible party who applies for the emission verification, component confirmation, emission testing, document examination and survey, etc. listed in **2.1.3-5(3)** (excluding **(d)iii))**, **Part 2**~~.

EFFECTIVE DATE AND APPLICATION (Amendment 2-2)

1. The effective date of the amendments is 29 June 2018.

Amendment 2-3

Part 2 SURVEYS

Chapter 2 REGISTRATION SURVEYS

2.1 Registration Surveys during Construction

2.1.3 Inspections of Construction and Equipment*

Sub-paragraph -5 has been amended as follows.

5 Inspections are to be carried out on the following items for the equipment for the prevention of air pollution from every ship of 400 *tons* gross tonnage or above, every mobile offshore drilling unit and other platforms. However, the inspections required in **(3)** excluding ~~**(d)iii)**~~**(a)** are to be carried out irrespective of tonnage of the ship.

(3) Nitrogen Oxides (NOx)

The following ~~emission verification, component confirmation,~~ emission testing, examination and survey~~, etc.~~ are to be carried out in accordance with the *NOx Technical Code* for every individual diesel engine to which the requirements of **2.1, Part 8** are applied. ~~However, for diesel engines whose *EIAPP certificate* has been already issued in accordance with the *NOx Technical Code* and whose Technical File has been approved in accordance with the *NOx Technical Code* or diesel engines which are deemed to be the equivalent thereto, the verification, confirmation, testing, examination and survey, etc. required in this **(3)**, excluding **iii)** and **iv)** of **(d)** below, may be omitted.~~

~~(a) Emission verification~~

~~i) It is to be verified that NOx emissions are within the limits specified in **2.1.2-1, Part 8** in accordance with the procedures for NOx emission measurements on a test bed referred to in **2.1.2-2(2)(a), Part 8** (referred to as "the measurement procedures for emission verification on a test bed" hereinafter in this **(3)**).~~

~~ii) For a Member Engine of an Engine Family or Engine Group, the testing specified in **i)** above may be omitted provided that it has been verified by the testing that the NOx emissions from the Parent Engine representing the Engine Family or Engine Group is within the limits specified in **2.1.2-1, Part 8**.~~

~~iii) Notwithstanding **i)** above, the following **1)** and **2)** may be applied.~~

~~1) In cases where verification cannot be carried out in accordance with the measurement procedures for emission verification on a test bed due to their size, construction and delivery schedule, the following **(d)i)** may be applied upon request by the diesel engine manufacturer, etc., shipowner or shipbuilder.~~

~~2) The provisions of **1)** above may be applied to an individual diesel engine or an Engine Group represented by the Parent Engine, but are not to be applied to an Engine Family.~~

~~iv) In the case of diesel engines fitted with a NOx-reducing device, the following **1)** or **2)** is to be applied.~~

~~1) The NOx-reducing device is recognized as a component of the diesel engine, and the testing is to be carried out with the NOx-reducing device fitted unless, due to~~

~~technical and practical reasons, the testing with the device fitted is not appropriate and the procedures specified in **iii)1)** above cannot be applied, subject to approval by the Society.~~

~~2) In cases where a NOx-reducing device has been fitted to diesel engines due to failure to meet the required emission limits in accordance with the measurement procedures for emission verification on a test bed, re-testing is to be carried out with the device fitted. In such cases, the re-testing may be carried out in accordance with the following **(d)ii)** provided that the effectiveness of the NOx-reducing device was demonstrated.~~

~~(b) Confirmation of the components of a diesel engine at the emission verification~~

~~It is to be verified using the same method as the parameter check method referred to in **2.1.3-1(4), Part 8** that diesel engines which passed the emission verification required in **(a)** above and their components are in compliance with the Technical File. In cases where the engine is not a Parent Engine but a Member Engine of an Engine Family or Engine Group, verification may be made by checking the records of any equivalent confirmation carried out by the diesel engine manufacturer, etc.~~

~~(c) Examination of the Technical File~~

~~i) For diesel engines other than those to which **(a)iii)1)** or **(a)iv)2)** above is applied, the diesel engine manufacturer, etc. is to submit the Technical File to the Society for approval prior to the test required in the following **(d)**.~~

~~ii) For diesel engines to which **(a)iii)1)** or **(a)iv)2)** above is applied, the diesel engine manufacturer, etc. is to submit the Technical File to the Society for approval after the test required in the following **(d)**.~~

~~(d) Test after installation on board~~

~~i) For diesel engines to which **(a)iii)1)** above is applied, it is to be verified on board that NOx emissions are within the limits specified in **2.1.2-1, Part 8** using the same method as the measurement procedures for emission verification on a test bed referred to in **2.1.2-2(2)(a), Part 8**.~~

~~ii) For diesel engines to which **(a)iv)2)** above is applied, it is to be verified on board that NOx emissions are within the limits specified in **2.1.2-1, Part 8** in accordance with the on-board simplified measurement method referred to in **2.1.2-2(2)(b), Part 8**.~~

~~iii~~(a) For diesel engines deemed necessary by the Society ~~other than those diesel engines listed in **i) or ii)**~~, it is to be verified that NOx emissions are within the limits specified in **2.1.2-1, Part 8** in accordance with the on-board NOx verification procedures contained in the approved Technical File. The procedures are to be the on-board simplified measurement method referred to in **2.1.2-2(2)(b), Part 8** or the parameter check method referred to in **2.1.3-1(4), Part 8**. A part of the tests may be omitted where deemed appropriate by the Society and there are two or more diesel engines in an Engine Family or Engine Group or two or more cylinders of the same particulars on board the ship. However, the tests are to be completed for at least one of those diesel engines, and/or one of those cylinders. As an alternative to the examination of fitted components, the Society may accept conducting that part of the survey on spare parts carried on board provided they are representative of the components fitted to the diesel engine.

~~iv~~(b) For diesel engines whose NOx emissions have been verified without a NOx-reducing device in accordance with 2.2.5.1 of the *NOx Technical Code* when the measurement procedures for emission verification on a test bed referred to in **2.1.2-2(2)(a), Part 8** ~~when **(a)i)** above is~~ are applied, an onboard survey is to be carried out in accordance with a standard deemed appropriate by the Society.

((4) and (5) are omitted.)

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

2.1 Nitrogen Oxides (NOx) (*Regulation*13 *of Annex* VI)

Title of Paragraph 2.1.1 has been amended as follows.

2.1.1 General~~Application~~*

Sub-paragraph -4 has been added as follows.

4 Diesel engines subject to **2.1** are to have an *EIAPP certificate* issued in accordance with the **Rules for Marine Engine Emission Verification** and a Technical File approved in accordance with the **Rules for Marine Engine Emission Verification**. Other documentation, however, may be also accepted in cases where deemed to be equivalent thereto.

2.1.2 Requirements for Installation*

Sub-paragraph -2(4) has been amended as follows.

2 Measurement and calculation is to be in accordance with the following:
((1) to (3) are omitted.)
(4) NOx emission value and the limit, rounded to one decimal place, are to be ~~given~~obtained ~~and compared to a precision of one decimal place~~.

Paragraph 2.1.3 has been amended as follows.

2.1.3 Technical File and Record Book of Engine Parameters*

1 Technical File

Every diesel engine is to be accompanied with an approved Technical File prepared by the diesel engine manufacturer, etc. and containing the following information.
((1) to (4) are omitted.)
(5) A copy of the test report on the testing in accordance with Section 2, Annex V of the *NOx Technical Code* ~~required in **2.1.3-5(3)(a), Part 2**~~. (In the case where the on-board simplified measurement method ~~in **2.1.3-5(3)(d)ii), Part 2**~~ applied in accordance with 2.2.5.2 of the *NOx Technical Code* ~~**2.1.3-5(3)(a)iv)2), Part 2**~~ was conducted for emission verification, both the test reports are to be included.) For a Member Engine of an Engine Family or Engine Group, it may be substituted for that for the Parent Engine.
((6) to (8) are omitted.)
(9) In case the exhaust gas cleaning system to reduce NOx emissions is installed, record of the presence of the system as a~~n essential~~ component of the diesel engine.
(10) Where an additional substance is introduced, such as ammonia, urea, steam, water, fuel additives, etc., ~~sufficient information to allow~~ a ready means of demonstrating that the consumption of such additional substances is consistent with achieving compliance with the

applicable NOx limit.

(11) Other information considered necessary by the Society.

2 Record Book of Engine Parameters

Each diesel engine is to be accompanied with a record book of engine parameters in which a full record of adjustments, modifications and all parameter changes, including components and settings of the diesel engine which may influence NOx emission made after the approval of Technical File ~~examination required in **2.1.3-5(3)(c), Part 2**~~, are contained.

EFFECTIVE DATE AND APPLICATION (Amendment 2-3)

1. The effective date of the amendments is 29 June 2018.

2. Notwithstanding the amendments to the Rules, the current requirements apply to diesel engines for which the date of application for approval is before the effective date except for in cases where the amendments are to be retroactively applied.

GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS

GUIDANCE

2018 AMENDMENT NO.1

Notice No.53 29 June 2018

Resolved by Technical Committee on 31 January 2018

Notice No.53 29 June 2018
AMENDMENT TO THE GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS

"Guidance for marine pollution prevention systems" has been partly amended as follows:

Amendment 1-1

Part 2 SURVEYS

Chapter 2 REGISTRATION SURVEYS

2.1 Registration Surveys during Construction

Paragraph 2.1.3 has been amended as follows.

2.1.3 Inspections of Construction and Equipment
(-1 to -4 are omitted.)
5 In applying **2.1.3-5(3), Part 2 of the Rules**, the definitions of terms which appear in said paragraph are as specified in **1.1.2, Part 8 of the Rules**.
6 ~~In applying **2.1.3-5(3)(a)i), Part 2 of the Rules**, refers to *IMO* resolution *MEPC*.198(62) as amended or others deemed appropriate by the Administration taking into account this resolution. In applying the resolution and *NOx Technical Code* referred to in the resolution, the IACS MPC series unified interpretations related thereto are also to be applied.~~

The wording "diesel engines deemed necessary by the Society" in **2.1.3-5(3)(a), Part 2 of the Rules** means diesel engines except those whose NOx emissions are verified on board using the same method as the measurement procedures for emission verification on a test bed in accordance with 2.2.4.1 of the *NOx Technical Code*, or which are verified using the on-board simplified measurement method in accordance with 2.2.5.2 of the *NOx Technical Code*.

7 The wording "where deemed appropriate by the Society" in **2.1.3-5(3)(a~~d~~)~~iii)~~, Part 2 of the Rules** means where it is considered by the Surveyor upon physical verification that all the other engines and cylinders perform in the same manner as those tested. The verification on a spare may be carried out only where the component represented by the spare part is one which is suitably defined in the approved Technical File on-board NOx verification procedures.
8 The wording "standard deemed appropriate by the Society" in **2.1.3-5(3)(b~~d~~)~~iv)~~, Part 2 of the Rules** means Section 7 of *IMO* resolution *MEPC*.291(71), as amended, ~~the resolution specified in -6 above~~ or others deemed appropriate by the Administration taking into account this resolution.
(-9 to -11 are omitted.)

Part 8 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Chapter 2 EQUIPMENT FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

2.1 Nitrogen Oxides (NOx) (*Regulation*13 of *Annex* VI)

Title of Paragraph 2.1.1 has been amended as follows.

2.1.1 General~~Application~~

2.1.2 Requirements for Installation

Sub-paragraph -3(2) has been amended as follows.

3 The wording "procedures specified otherwise by the Society" in **2.1.2-2(2), Part 8 of the Rules** means those listed below.

(1) (Omitted)

(2) On-board simplified measurement method
The method is to be in accordance with 6.3 of the *NOx Technical Code*. ~~However, when the verification as required by **2.1.3-5(3)(a)iv)2), Part 2 of the Rules** is carried out in accordance with the on-board simplified measurement method, the allowances as given under 6.3.11 of the *NOx Technical Code* are not be granted. In addition, when the procedures specified in Chapter 5 of the *NOx Technical Code* are carried out, it is to be in accordance with **(1).**~~

(3) (Omitted)

2.1.3 Technical File and Record Book of Engine Parameters

Sub-paragraph -3 has been added as follows.

3 The wording "Other information considered necessary by the Society" includes, but is not limited to, the following types of information:

(1) If the engine has more than one mode of operation, details of the control guidelines for selecting the different modes of operation and recording the modes of operation, along with the method used for switching between modes.

(2) Auxiliary control device (if applicable).

(3) For engines fitted with selective catalytic reduction systems, the information specified in paragraph 3.2 of the Annex of *IMO* resolution *MEPC*.291(71), as amended.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 29 June 2018.

2. Notwithstanding the amendments to the Guidance, the current requirements apply to diesel engines for which the date of application for approval is before the effective date except for in cases where the amendments are to be retroactively applied.

Amendment 1-2

Part 2 SURVEYS

Chapter 4 OCCASIONAL SURVEYS

4.1 General

Paragraph 4.1.2 has been amended as follows.

4.1.2 Inspection

1 At Occasional Surveys carried out due to a major conversion of a diesel engine specified in **1.2.2(1~~2~~3), Part 8 of the Rules**, the diesel engine ~~it~~ is to be verified that it complies with **2.1.1-4, Part 8 of the Rules** and to be surveyed in accordance with **2.1.3-5.(3), Part 2 of the Rules.** ~~the NOx emission is within the limits specified in **2.1.2-1, Part 8 of the Rules** by one of the following:~~

~~(1) On-board simplified measurement method specified in the approved Technical File~~

~~(2) Where the engine is a member of an Engine Group, reference to the test bed testing for the relevant Engine Group approval~~

2 At Occasional Surveys carried out due to adjustment or modification to a diesel engine outside the approved limits documented in the Technical File specified in **1.1.2(10), Part 8 of the Rules**, it is to be verified that the diesel engine complies with **2.1.1-4, Part 8 of the Rules** and that its NOx emissions are~~is~~ within the limits specified in **2.1.2-1, Part 8 of the Rules** by one of the following: ~~**(1)** or **(2)** above or the on-board direct measurement and monitoring method.~~

(1) The on-board simplified measurement method specified in the approved Technical File.

(2) Where the engine is a member of an Engine Group, reference to the test bed testing for the relevant Engine Group approval.

(3) The on-board direct measurement and monitoring method.

3 At occasional surveys carried out in order to verify **2.1.1-3, Part 8 of the Rules**, it is to be verified that NOx emissions are within any of the limits specified in **Tables 8-1(a)** to **(c) Part 8 of the Rules** by the following **(1)** or **(2)**:

(1) It is to be verified that the Approved Method is appropriately installed in accordance with the procedures specified in the Approved Method Technical File.

(2) In addition to verification of compliance with **2.1.1-4, Part 8 of the Rules,** a survey ~~Verification~~ is conducted in accordance~~ing~~ with~~to~~ **2.1.3-5(3), Part 2 of the Rules**.

4 (Omitted)

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 29 June 2018.