



RUSSIAN MARITIME REGISTER OF SHIPPING

CIRCULAR LETTER

No. 313-04-1321c

dated 03.02.2020

Re:

amendments to the Guidelines on the Application of Provisions of the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, ND No. 2-030101-025-E

Item(s) of supervision:

ships under construction and in service

Entry-into-force date:

from the date of publication

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Appendices:

Appendix 1: information on amendments introduced by the Circular Letter

Appendix 2: text of amendments to Sections 1 "General", 2 "Survey of marine diesel engines at the firm (manufacturer)", 3 "Application of the marine diesel engine family or marine diesel engine group concepts at the firm (manufacturer)", 4 "Technical supervision during tests of marine diesel engines at the firm (manufacturer) for compliance with the NO_x emission limits", 5 "Surveys of marine diesel engines on board", 6 "Survey of diesel engines on board for compliance with the NO_x emission limits" as well as Appendices 2 and 7.

Director General

Konstantin G. Palnikov

Text of CL:

We hereby inform that in connection with the withdrawal of IACS UIs MPC37 – 39, MPC41, MPC42, MPC57, MPC62, MPC66, MPC78, MPC79, MPC105, MPC108 – 111, MPC113, MPC114, MPC117, MPC118, MPC120, MPC122 and MPC123 (Nov 2019) the Guidelines on the Application of Provisions of the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, ND No. 2-030101-025-E shall be amended as specified in the Appendices to the Circular Letter.

It is necessary to do the following:

1. Bring the content of the Circular Letter to the notice of the RS surveyors, interested organizations and persons in the area of the RS Branch Offices' activity.
2. Apply the provisions of the Circular Letter during surveys of ships under construction and in service from the entry into force date of amendments.

List of the amended and/or introduced paras/chapters/sections:

paras 1.3, 2.1.10, 2.2.1, 3.3.10.1, 3.3.10.2, 4.7.2, 4.9.2.1, 5.1.4.1, 5.1.4.6, 5.1.4.8, 5.2.10, 5.2.11 and 6.2.3.2.2

Appendix 2: para 3.2

Appendix 7: para 1.1

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**Information on amendments introduced by the Circular Letter
(for inclusion in the Revision History to the RS Publication)**

| Nos. | Amended paras/chapters/sections | Information on amendments | Number and date of the Circular Letter | Entry-into-force date |
|------|---------------------------------|--|--|-----------------------|
| 1 | Section 1, Chapter 1.3 | The definition "Manufacturer of diesel engine " has been deleted considering the withdrawal of IACS UI MPC78. The definition "Engine system fitted with SCR" has been introduced | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 2 | Section 2, para 2.1.10 | Para has been specified considering both the withdrawal of IACS UI MPC39 and para 2.3.4 of the NO _x Technical Code | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 3 | Section 2, para 2.2.1 | Para has been specified considering IACS UIs MPC108 – 111, MPC113 and MPC114 withdrawal | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 4 | Section 3, para 3.3.10.1 | Para has been specified considering both the withdrawal of IACS UIs MPC57 and para 4.3.9 of the NO _x Technical Code | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 5 | Section 3, para 3.3.10.2 | Para has been specified considering the withdrawal of IACS UI MPC57 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 6 | Section 4, para 4.7.2 | Para has been specified considering both the withdrawal of IACS UI MPC62 and para 5.4.3 of the NO _x Technical Code | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 7 | Section 4, para 4.9.2.1 | Para has been specified considering both the withdrawal of IACS UI MPC66 and para 5.9.2 of the NO _x Technical Code | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 8 | Section 5, para 5.1.4.1 | Para has been specified considering the withdrawal of IACS UIs MPC108 – 111, MPC113, MPC114, MPC117, MPC118, MPC120, MPC122 and MPC123 | 313-04-1321c of 03.02.2020 | 03.02.2020 |

| Nos. | Amended paras/chapters/sections | Information on amendments | Number and date of the Circular Letter | Entry-into-force date |
|------|---------------------------------|--|--|-----------------------|
| 9 | Section 5, para 5.1.4.6 | Para has been specified considering the withdrawal of IACS UIs MPC108 – 111, MPC113, MPC114, MPC117, MPC118, MPC120, MPC122 and MPC123 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 10 | Section 5, para 5.1.4.8 | Para has been specified considering the withdrawal of IACS UI MPC105 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 11 | Section 5, para 5.2.10 | The text of para has been specified considering the withdrawal of IACS UI MPC41 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 12 | Section 5, para 5.2.11 | The text of para has been specified considering the withdrawal of IACS UI MPC42 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 13 | Section 6, para 6.2.3.2.2 | Para has been specified considering the withdrawal of IACS UI MPC78 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 14 | Appendix 2, Chapter 3.2 | The text has been deleted considering the withdrawal of IACS UIs MPC37and MPC38 | 313-04-1321c of 03.02.2020 | 03.02.2020 |
| 15 | Appendix 7, para 1.1 | Para has been specified considering the withdrawal of IACS UI MPC79 | 313-04-1321c of 03.02.2020 | 03.02.2020 |

1 GENERAL

1.3 DEFINITIONS AND EXPLANATIONS

1 The **definition** "Manufacturer of diesel engine" is deleted.

2 After the definition "Nitrogen oxide (NO_x) emissions" a **new definition** is introduced reading as follows:

"Engine system fitted with SCR reducing NO_x emissions means a system consisting of a marine diesel engine, an SCR chamber and a reductant injection system. When a control device on NO_x-reducing performance is provided, it is also regarded as a part of the system."

2 SURVEY OF MARINE DIESEL ENGINES AT THE FIRM (MANUFACTURER)

3 **Para 2.1.10** is replaced by the following text:

"**2.1.10** Every marine diesel shall be provided with the Technical. The Technical File shall be prepared by the diesel engine certification applicant, approved by the Register upon authorization of the Administration and required to be available to accompany the diesel engine throughout the life whereof on board."

4 **Para 2.2.1.** The first para is replaced by the following text:

".**2.1** To have the EIAPP Certificate being issued, the applicant for engine certification shall forward to the Register, acting on behalf of Administration, its application which shall be accompanied by the following:"

3 APPLICATION OF THE MARINE DIESEL ENGINE FAMILY OR MARINE DIESEL ENGINE GROUP CONCEPTS AT THE FIRM (MANUFACTURER)

3.3 REGULATIONS ON APPLICATION OF THE MARINE DIESEL ENGINE FAMILY CONCEPT

5 **Para 3.3.10.1** is replaced by the following text:

"**3.3.10.1** The method of selection of the parent diesel engine for the NO_x measurements shall be proposed by the manufacturer and approved by the Register upon authorization of the Administration. The method shall be based upon selecting the diesel engine, which incorporates diesel engine features and characteristics, which, from experience, are known to produce the highest NO_x emissions, in g/kW-h. The selection of several diesel engines may be allowed to represent the family."

6 **Para 3.3.10.2** is replaced by the following text:

"**3.3.10.2** The following criteria for selecting the parent diesel engine for the NO_x emission control shall be considered regarding selecting the diesel engine, having the highest emission value for the applicable test cycle."

4 TECHNICAL SUPERVISION DURING TESTS OF MARINE DIESEL ENGINES AT THE FIRM (MANUFACTURER) FOR COMPLIANCE WITH THE NO_x EMISSION LIMITS

4.7 ANALYSERS FOR DETERMINATION OF THE GASEOUS COMPONENTS

7 **Para 4.7.2** is replaced by the following text:

"**4.7.2** Alternative systems or analysers may, subject to the approval of the Administration, be accepted if they yield equivalent results to that of the equipment referenced in 4.7.1. Such proposed alternative systems or analysers can be applied, as qualified by using recognized national or international standards, when used to measure diesel engine exhaust emission concentrations, yield in terms of the requirements referenced in 4.7.1. The determination of equivalency shall be based upon the calculation of repeatability and reproducibility, as described in ISO 5725-1 and ISO 5725-2, or any other comparable recognized standard."

4.9 TEST RUN

8 **Para 4.9.2.1** is replaced by the following text:

"**4.9.2.1** An analytical system for the determination of the gaseous emissions in the raw exhaust gas shall be used based on the use of analysers given in Appendix 4."

5 SURVEYS OF MARINE DIESEL ENGINES ON BOARD

9 **Para 5.1.4.1.** The first para is replaced by the following text:

"**5.1.4.1** Where a NO_x reducing device shall be included within the EIAPP Certificate, it shall be recognized as a component of the engine and its presence shall be recorded in the Technical File of Marine Diesel Engine. The marine diesel engine fitted with SCR system to reduce NO_x emissions shall be certified in terms of the requirements referenced in Chapter 2 of the NO_x Technical Code. The procedures provided by Scheme A or Scheme B in compliance with the Guidelines Addressing Additional Aspects of the NO_x Technical Code with regard to Particular Requirements related to Marine Diesel Engines fitted with SCR Systems adopted by IMO resolution MEPC.291(71), as amended by IMO resolution MEPC.313(74), shall be applied. At that IACS UIs MPC 112, MPC115 and MPC116 (Nov 2015) shall be considered."

10 **Para 5.1.4.6** is replaced by the following text:

"**5.1.4.6** Notwithstanding 5.1.4.3 and 5.1.4.4, NO_x reducing device may be approved taking into account the Guidelines Addressing Additional Aspects to the NO_x Technical Code with Regard to Particular Requirements Related to Marine Diesel Engines Fitted with Selective Catalytic Reduction (SCR) Systems in compliance with IMO resolution MEPC. 291(71), as amended. At that IACS UIs MPC 112, MPC115 and MPC116, developed to the Guidelines shall be considered."

11 **Para 5.1.4.8** is replaced by the following text:

"**5.1.4.8** The gaseous emissions calculation method specified in 5.1.4.7 is the approach to use, it applies to both Scheme A and Scheme B certification of marine diesel engines fitted with SCR systems."

5.2 RULES OF ON-BOARD MARINE DIESEL ENGINES SURVEYS

12 **Para 5.2.10** is replaced by the following text:

"5.2.10 The Register may, upon authorization of the Administration, abbreviate or reduce all parts of the survey on board to an engine that has been issued an EIAPP Certificate. However, the entire survey on board shall be completed, for at least one cylinder and/or one engine in an engine family or engine group ~~or spare part~~, if applicable, and the abbreviation may be made only if all the other cylinders and/or engines ~~or spare parts~~ are expected to perform in the same manner as the surveyed engine and/or cylinder. As an alternative to the examination of fitted components, on behalf of Administration the Register may conduct that part of the survey on spare parts carried on board provided they are representative of the components fitted."

13 **Para 5.2.11** is replaced by the following text:

"5.2.11 Guidance in respect of the survey and certification of marine diesel engines, installed on board, at initial, renewal, annual and intermediate surveys is given in the flowcharts in appendix in Figs. 2 and 3 of Appendix 6. In case of discrepancies, the text thereof shall prevail."

6 SURVEY OF DIESEL ENGINES ON BOARD FOR COMPLIANCE WITH THE NO_x EMISSION LIMITS

14 **Para 6.2.3.2.2** is replaced by the following text:

".2 list of the marine diesel engine designated components affecting NO_x emission amount and/or documentation of the marine diesel engine load-dependent operating values submitted by the applicant for engine certification and approved by the Register upon authorization of the Administration);".

APPENDIX 2

3 DATA ON MARINE DIESEL ENGINE TEST BED TRIALS

3.2 PARAMETERS TO BE MEASURED AND MEASURING EQUIPMENT

15 The next to the last para of the Chapter is deleted.

APPENDIX 7

CHECK LIST FOR THE MARINE DIESEL ENGINE PARAMETERS CHECK METHOD

1 GENERAL

16 **Para 1.1** is replaced by the following text:

"1.1 For some parameters, different survey possibilities exist, whereby anyone of the methods may be sufficient to show compliance of the surveyed parameters those designated. Upon authorization of the Administration, the shipowner, supported by the applicant for engine certification, may choose what method is applicable."