GUIDELINES
ON THE APPLICATION OF PROVISIONS
OF THE TECHNICAL CODE ON CONTROL
OF EMISSION OF NITROGEN OXIDES
FROM MARINE DIESEL ENGINES

ND No. 2-030101-048-E

RULE CHANGE NOTICE

ENTERS INTO FORCE:
01.07.2024

St. Petersburg
2024
GUIDELINES ON THE APPLICATION OF PROVISIONS OF THE TECHNICAL CODE ON CONTROL OF EMISSION OF NITROGEN OXIDES FROM MARINE DIESEL ENGINES

The present Rule Change Notice to the Guidelines on the Application of Provisions on the Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines (hereinafter — RCN) has been approved in accordance with the established approval procedure and contains information on amendments and additions, except for editorial amendments. RCN amendments come into force on 1 July 2024.
## REVISION HISTORY

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GUIDELINES ON THE APPLICATION OF PROVISIONS OF THE TECHNICAL CODE ON CONTROL OF EMISSION OF NITROGEN OXIDES FROM MARINE DIESEL ENGINES, 2022

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

4.9 TEST RUN

Para 4.9.2 is renamed as follows:

"4.9.2 Methods for measurement of Main components of exhaust gases: CO, CO₂, HC, NOₓ, and O₂ and particulates.".

Paras 4.9.2.2 and 4.9.2.3 are deleted.

New para 4.9.8 is introduced reading as follows:

"4.9.8 Considering structural particulars of gas analysers it is allowed, upon Administration approval, to demonstrate the records of the procedure of the latest valid calibration stored in the device memory including registration of the calibration signal drift as alternative to the requirements of 4.9.4 and 4.9.7 regarding checks with the use of gases containing zero or span gas. This alternative is possible only provided the compliance with all the requirements for calibration procedure given in Section 9 of Appendix 4.".

APPENDIX 2

Appendix is renamed as follows:

"TECHNICAL FILE (UNIFIED RECOMMENDED FORM DEVELOPED BY THE REGISTER) (sample form)".

1. PARTICULARS OF THE ENGINE

Para 15 is amended as follows:

"15. Measured values of noxious substances emission:

NOₓ, in g/kW-h
CO₂, in g/kW-h
HC, in g/kW-h
Concentration of smoke particulates, in %".
3.2 PARAMETERS TO BE MEASURED AND MEASURING EQUIPMENT

The fifteenth paragraph is deleted:

"Concentration of smoke particulates in exhaust gases (it is measured by optical or filtration method)."

APPENDIX 4

TECHNICAL SPECIFICATIONS, OPERATING PROCEDURES FOR ANALYSERS AND CALIBRATION OF ANALYSERS

1 DEFINITIONS

Definition "Repeatability of an analyser" is deleted:

New paragraph is introduced reading as follows:

"For determination the international standards apply: ISO 5725-1 (Accuracy of measurement methods and results, Part 1); ISO 5725-2 (Accuracy of measurement methods and results, Part 2) or equivalent national standards."

Chapter 3.1 and its content are replaced by the following text:

"3.1 ACCURACY OF MEASUREMENT"

The analyser shall not deviate from the nominal calibration point by more than \(\pm 2\%\) of the readings over the whole measurement range except zero, or \(\pm 0,3\%\) of full scale, whichever is larger. The accuracy shall be determined in compliance with the calibration requirements laid down in Section 9."

Para 3.2.1 is replaced by the following text:

"3.2.1 Precision.

The precision defined as 2,5 times the standard deviation of 10 repetitive responses to a given calibration or span gas, shall be no greater than \(\pm 1\%\) of full-scale concentration for each range used above 100 ppm (or ppmC) or \(\pm 2\%\) of each range used below 100 ppm (or ppmC)."
APPENDIX 5

PERMISSIBLE DEVIATIONS OF MEASURED PARAMETERS

The paragraph after Table 3 is deleted:

"Since in compliance with the requirements of the Russian standards the manufacturers of analytical instruments shall indicate the total measurement deviation of gas analysis without specifications, Table 5 contains the deviations for measurements of gas analysis permissible both according to the NOx Technical Code and the Guidelines."

Table 5 is deleted.

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