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No.: RSV 05-2014

Date: 15.04.2024

Journal No.: 2019/88206

Applicable until:

Supersedes: Previous Circular series V

Reference to: Rules for environmental safety for ships and mobile offshore units

Guidance on documentation of compliance with the NO_x requirements in the world heritage fjords

Special rules regarding emission of nitrogen oxides (NO_x) from ships in the world heritage fjords are set out in section 14c of the Regulations on environmental safety for ships and mobile offshore units.

EIAPP certificate

An Engine International Air Pollution Prevention (EIAPP) certificate is required for each diesel engine installed on ships constructed on or after 1 January 2000, showing that the engine complies with the emissions requirements stipulated in MARPOL regulation VI/13. These requirements also apply in the event of a major conversion, cf. MARPOL regulation VI/13.2.

Ships constructed on or after 1 January 2000 may use their EIAPP certificates to demonstrate compliance with the NO_x requirements stipulated in section 14c.

Alternative documentation based on on-board measurement of NO_x emissions

Ships with diesel engines installed that have not been issued EIAPP certificates or would like to upgrade one or more diesel engines in order to reduce NO_x emissions, and thereby comply with the requirements of section 14c, may carry out NO_x measurements on board.

The NO_x measurements must be carried out on all diesel engines that will operate in the world heritage fjords. The NO_x measurements shall be carried out by an actor that has been accredited in accordance with NS-EN ISO/IEC 17025 using ISO 8178 as reference standard. A list of actors having notified the Norwegian Maritime Authority (NMA) that they are accredited in accordance with the above-mentioned standards can be found on our websites.

(<https://www.sdir.no/sjofart/fartoy/miljo/utslipp-fra-skip/utslipp-til-luft/informasjon-om-kvalifisert-aktor---nox-avgift/>)

The measurements must be conducted in accordance with the NO_x Technical Code 2008, 6.3 "Simplified measurement method" with the following options for simplification:

- If the specific fuel consumption is not measured on board, it can be documented using test bed data from the engine manufacturer. Such documentation must be included in the measurement report submitted to the NMA.

- If the shaft power is not measured on board, other operational parameters that provide a good estimate of power may be used.

If the NO_x measurements are conducted with the simplifications mentioned above, the specific NO_x emissions at each load point shall be multiplied by a factor of 1.1 before calculating the weighted NO_x emissions. This is done to take into account the uncertainty caused by the simplification of the measurement method.

For both main and auxiliary engines, the specific NO_x emissions shall be documented based on the weighted values for the relevant test cycle set out in Appendix II to MARPOL Annex VI. If measurements are not taken at every load point, reasons for this must be provided in the report. Possible combinations of load points, minimum number of load points and revised weighting factors are found in the NO_x Technical Code 2008 Appendix VIII, 6 “Selection of load points and revised weighting factors”.

The measurement report and documentation that the actor has the necessary accreditations must be sent by the company to the NMA for approval. Where the NO_x emissions comply with the NO_x requirements set out in section 14c, the NMA will issue a confirmation of this to the ship.

As a part of the documentation of compliance with the Tier III requirements when operating in the world heritage fjords, a logbook as described in MARPOL Annex VI Regulation 13.5.3 must be kept on board and made available to surveyors from the NMA upon request.

When an SCR system is used to meet the emission requirements and the SCR system is not registered in the engine’s NO_x technical file, the ship must have a procedure in place to monitor and verify that the system’s NO_x-reducing effect is satisfactory. The procedure must include a method for monitoring the condition of the catalyst and a verification procedure to make it easy for our surveyors to decide whether an engine is in compliance with current requirements. The procedures must also include other relevant parts of section 3.2 of the 2017 SCR guidelines (MEPC.291(71)).

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