

M. S. Notice 02 of 2012 - Prevention of Air Pollution-NOx Emissions limits for new engines-reg.

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No:ENG/DGS/ICC-09

Dated: 19.01.2012

Subject: Prevention of Air Pollution-NOx Emissions limits for new engines-reg.

1. This circular is issued to draw the attention of all stake holders to take adequate measures to comply with the amendments to the Annex VI of the Protocol of 1997, to amend the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto.,
2. The Marine Environment Protection Committee (MEPC 58) of the International Maritime Organization (IMO) has approved amendments to the MARPOL Annex VI confirming the proposed three-tier structure for new engines, which would set progressively tighter nitrogen oxide emission standards for new engines depending on the date of their installation.
 - A. **Applicable to vessels other than those which are under River Sea Vessel (RSV) Category.**
3. **NOx Emission Limits for new engines .**
 - A. The MEPC agreed amendments confirming the proposed three-tier structure for new engines, which would set progressively tighter nitrogen oxide emission standards would depend on the date of installation of such engines as shown below:-
 - ii. Tier I applies to a diesel engine which is installed on a ship constructed on or after 1 January 2000 and prior to 1 January 2011 and represents the 17.0 g/kWh standard stipulated in the MARPOL Annex VI.

- iii. Tier II applies to a diesel engine which is installed on a ship constructed on or after 1 January 2011 and represents the 14.4 g/kWh standards stipulated in the MARPOL Annex VI.
- iv. Tier III applies to a diesel engine which is installed on a ship constructed on or after 1st January 2016 and represents the 3.4 g/kWh, when the ship is operating in a designated Emission Control Area.

Outside a designated Emission Control Area (ECA), Tier II limits apply.

NOx Emission Limits for existing engines

- . The MEPC agreed a NOx emission limit of 17.0 g/kw (Tier I standard) for a diesel engine with power output of more than 5,000 kw and a displacement per cylinder at, or above, 90 litres installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000. Such engines shall be treated as "existing engine".

There are a few important steps for the application of this retroactive provision.

1. If the engine already meets Tier I NOx emission limits, then a simple certification is sufficient.
2. If the engine does not meet the Tier I NOx emission limitations, compliance of the following measures is required:-
 1. If there is an upgrading system certified by an Administration and the certification identifies that such a system ensures a reduction to the Tier I limits of that particular engine;
 2. the upgrading system is considered commercially available 12 months after an Administration deposits the notification on certification to IMO;
 3. the engine would need to be upgraded at the ship first renewal survey after the upgrading system becomes commercially available.

In case the upgrading system is not available at the time of completion of the renewal survey (ship owner has to document that), the Directorate would give an extension until the next Annual Survey.

III. Applicable to vessels under RSV Category

Type 3 and Type 4 River Sea Vessels are required to comply with Tier II limits as mentioned above in sub para 3.1.2, to a marine diesel engine installed on a ship constructed on or after 1 January 2011.

Type 1 and Type 2 River Sea Vessels are required to comply with Tier I limits as mentioned above in sub para 3.1.1, to a marine diesel engine installed on a ship constructed on or after 23rd February, 2012.

Compliance of this circular, inter alia, will be mandatory for grant of licence under section 406(3) of the M.S. Act, 1958, as amended.

This Engineering Circular supercedes the following:-

[Engineering Circular No.98 dated 25.11.2008](#)

[Engineering Circular No. 137 dated 18.08.2011](#)

Letter to M/s ICC Shipping Association, No.
ENG/OPP/MARPOL- 38(5)/2004 dated 18.10.2011

This issue with the approval of the competent authority.

Sd/-

(D. Mehrotra)

Dy. Chief Surveyor-cum Sr. DDG(Tech)