
MPC 114 (Nov 2015) **2011 Guidelines Addressing Additional Aspects to the NO_x Technical Code 2008 with regard to Particular Requirements related to Marine Diesel Engines fitted with Selective Catalytic Reduction (SCR) Systems (Resolution MEPC.198(62), Section 3.2.1.10)**

MEPC.198(62), Section 3.2.1.10 reads:

3.2.1 In addition to the information supplied in paragraph 3.1.3 of these guidelines and items in section 2.4 of the NTC 2008, engine systems fitted with SCR should include the following information in its Technical File:

.10 measures to minimize reductant slip;

Interpretation

The engine technical file is to include details of measures to minimize reductant slip. There is no emission limit value for reductant slip in MARPOL Annex VI Regulation 13 or the NO_x Technical Code. In practice this reductant slip is expected to be composed of ammonia which has not reacted on the surface of the catalyst.

In the absence of an emission limit value the applicant is to provide guidance on expected ammonia slip levels and to submit proposals to ensure that the ammonia slip will be minimised. This is to include instruction on when reductant injection should commence since it is recognised that injecting reductant into the SCR chamber before the catalyst blocks have reached their operating temperature (typically 300°C) will result in high ammonia slip. The reductant injection permissive is to consider catalyst operating temperature and is not to be based only on inlet exhaust gas temperature since there will be a period of time between the exhaust gas inlet temperature reaching the required temperature and the catalyst blocks reaching their operating temperature. This may be demonstrated by the applicant supplying a minimum operating temperature downstream of the SCR.

The applicant is to provide details of measures to minimise ammonia slip after the SCR, along with guidance for checking at annual, intermediate and renewal surveys.

When ammonia monitoring is to be fitted to measure ammonia concentration in the exhaust duct downstream of the SCR, or when an equivalent means such monitoring of other gaseous emissions such as NO_x in conjunction with system control reference values can effectively provide a means of monitoring ammonia slip, this will be accepted as the means of checking that measures to minimise ammonia slip are being effectively implemented.

Note:

1. This Unified Interpretation is to be uniformly implemented by IACS Societies not later than 1 July 2016.

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