

Location of Chemical Storage Tanks and Ventilation, etc. for Selective Catalytic Reduction Systems, Exhaust Gas Recirculation Systems and Exhaust Gas Cleaning Systems

Amended Guidance

Guidance for the Survey and Construction of Steel Ships Part D

Reason for Amendment

With respect to selective catalytic reduction (SCR) systems, exhaust gas recirculation (EGR) systems and exhaust gas cleaning systems (EGCS) which use chemicals such as urea solution and sodium hydroxide solutions, ClassNK has amended its Rules so as to specify safety related requirements for ships installed with such systems. The amendment applies to ships with such systems whose applications for approval are submitted to the Society on or after 1 January 2018 or which are installed on ships contracted for construction on or after the said date.

These safety related requirements permit independent chemical storage tanks to be located in machinery spaces on the condition that any enclosed spaces containing such tanks are provided with ventilation systems giving at least 6 air changes per hour, as specified in IACS Unified Requirement (UR) M77.

However, the same safety related requirements did not permit chemical storage tanks forming part of the ship's hull to be located adjacent to machinery spaces, unless spaces adjacent to such tanks were provided with ventilation systems giving at least 20 air changes per hour. Thus, the above-mentioned requirements were not consistent with respect to arrangement and ventilation.

Taking into account said UR, all requirements relevant to arrangements of chemical storage tanks forming part of the ship's hull and ventilation requirements of spaces adjacent to such tanks were amended for consistency.

In addition, survey requirements for EGR systems which were unclear as to whether surveys were to be carried out at manufacturing facilities (shop tests) or after installation on board were amended in order clarify this.

Outline of Amendment

- (1) Amended arrangement requirements so that chemical storage tanks forming part of the ship's hull may be located adjacent to machinery spaces.
- (2) Amended ventilation requirements for spaces adjacent to chemical storage tanks forming part of the ship's hull so that the ventilation requirements for enclosed spaces containing independent chemical storage tanks will be applied.
- (3) Clarified survey requirements for EGR systems to clearly specify where such surveys are to be carried, such as at manufacturing facilities (shop tests) or after installation on board.

Amended Requirements

Guidance for the Survey and Construction of Steel Ships

Part D: Annex D1.3.1-5(1) 1.5.1, 1.5.3, Annex D1.3.1-5(2) 1.5.1, 1.5.2, Annex D2.1.1-5
1.2.1, 1.2.2