

# **Selective Catalytic Reduction Systems, Exhaust Gas Cleaning Systems and Exhaust Gas Recirculation Systems**

## **Amended Rules**

Rules for the Survey and Construction of Steel Ships Parts B and D

## **Reason for Amendment**

IACS Unified Requirement (UR) M77 specifies requirements related to the storage and use of reductants for selective catalytic reduction (SCR) systems. These requirements have already been incorporated into the NK Rules.

In response to requests received from relevant industry members, IACS reviewed UR M77 so as to align its requirements with those of the IBC Code, and adopted UR M77(Rev.1) in August 2019 as a result. UR M77(Rev.1) amends requirements for ventilation systems in compartments where urea storage tanks are installed so as to ensure they are consistent with those of the IBC Code; furthermore, it clarifies that the use of portable means of ventilation is acceptable for urea storage tanks.

In addition to the above, the NK requirements for exhaust gas cleaning systems (EGCS) and exhaust gas recirculation (EGR) systems which are based upon requirements for SCR systems were reviewed as part of a comprehensive review of the Rules for the Survey and Construction of Steel Ships so as to bring them in line with actual practices.

Accordingly, relevant requirements were amended based upon IACS UR M77(Rev.1) and results of the aforementioned comprehensive review.

## **Outline of Amendment**

- (1) Specified relevant requirements related to the materials, ventilation, safety and protective equipment for SCR systems.
  - Clarified the requirement related to materials used for reductant tanks and their associated piping systems.
  - Clarified the compartments which require ventilation systems and warning notices.
  - Clarified that either portable or permanent means of ventilation are acceptable for reductant tanks.
  - Deleted requirements related to safety showers.
- (2) Amended relevant requirements related to the ventilation and tests after installation on board for EGCS and EGR systems.
  - Clarified that an extraction type of ventilation system is the only type acceptable for closed compartments in cases where relevant systems use sodium hydroxide solutions.
  - Clarified that overboard discharge pipes are to be exempted from leak tests at shipyards after EGCS and EGR systems are installation on board.

## **Amended Requirements**

Rules for the Survey and Construction of Steel Ships

Part B: 3.3.5

Part D: 21.2.2, 21.4.1, 21.4.3, 21.4.4, 21.7.1, 22.1.1, 22.4.2, 22.7.2