

Electrical Installations for Ships Carrying Dangerous Goods

Amended Guidance

Guidance for the Survey and Construction of Steel Ships Part R

Reason for Amendment

IACS Unified Interpretation (UI) SC79 specifies requirements related to the types of electrical equipment which can be installed in the hazardous areas of ships carrying dangerous goods. The purpose of these requirements is to avoid such equipment becoming sources of ignition which may cause a fire on board the ships. These requirements have already been incorporated into the ClassNK Rules.

The UI regards pipe tunnels where leakage of combustible liquids may occur through flanges, valves and pumps of bilge pipes as well as enclosed spaces like bilge pump rooms, etc. to be hazardous areas, unless they are protected by positive pressure in accordance with IEC60092-506.

Although such protection is considered to be effective against the passage of flammable air into protected areas, additional ventilation is also deemed to be necessary because of the discharge of explosive gas when there are leakages of combustible liquids within these protected areas.

Therefore, in order to make the requirements related to protection more rationale, IACS reviewed UR SC79 and, as a result, approved UR SC79(Rev.4) in October 2015.

Accordingly, relevant rules were amended based upon UI SC79(Rev.4).

In addition, parts of the requirements in ClassNK Rules related to the protection of spaces classified as non-hazardous area spaces which are adjacent to hazardous areas and which have openings into such areas had been different from IEC60092-506; therefore, relevant requirements were amended in order to conform with that standard.

Outline of Amendment

- (1) Specified protection requirements for enclosed spaces classified as non-hazardous areas (e.g. pipe tunnels, bilge pump rooms, etc.) which contain bilge pipes with flanges, valves and pumps, etc. deemed to be sources for the discharge of dangerous gases.
- (2) Specified that spaces adjacent to extended hazardous areas which have openings leading into such area, but which are provided with gas-tight closures or automatically closing gas-tight doors are to be classified as non-hazardous areas in accordance with IEC 60092-506.

Amended Requirements

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Part R: R19.3.2