# **SC 307** (Nov 2024)

# Hydrocarbon Gas Detection and Bilge High Level Alarms in Cargo Pump-Rooms

## SOLAS II-2/4.5.10 reads as follows:

"5.10 Protection of cargo pump-rooms

5.10.1 In tankers:

. . .

- .3 a system for continuous monitoring of the concentration of hydrocarbon gases shall be fitted. Sampling points or detector heads shall be located in suitable positions in order that potentially dangerous leakages are readily detected. When the hydrocarbon gas concentration reaches a pre-set level which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically affected in the pump-room, engine control room, cargo control room and navigation bridge to alert personnel to the potential hazard; and
- .4 all pump-rooms shall be provided with bilge level monitoring devices together with appropriately located alarms..."

### Interpretation

- 1 Characteristics of the cargoes and their vapors (flammability, density, etc.) should be taken into consideration to determine the type and arrangement of detectors.
- 2 Suitable numbers of detectors or sampling heads should be provided in the cargo pump room at upper and lower positions, at least covering the following places:
  - .1 (perpendicular) upper part of each cargo pump or between two cargo pumps;
  - .2 within 30 cm above the lowest part of the cargo pump-room bottom floor;
  - .3 not more than 1 m below the cargo pump room ceiling/head deck; and
  - .4 one detector every 10 m length or width of the cargo pump-room.
  - .5 areas where the air circulation is reduced (e.g. recessed corners).

#### Notes:

- 1. This UI is to be uniformly implemented by IACS Societies on ships contracted for construction on or after 01 January 2026.
- 2. The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.

SC 307 (cont) 3 A high level of liquid in the pump room should activate a continuous audible and visual alarm signal in the pump-room, cargo control room, engine control room and on the navigation bridge.

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