

# ICS TECHNICAL INFORMATION

## UNIFIED INTERPRETATIONS OF SOLAS REGULATIONS II-2/9 AND 13

Relevant for ship owners and managers & Surveyors

TI-24-09

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### Introduction

The Maritime Safety Committee, at its ninety-fifth session (3 to 12 June 2015), with a view to providing more specific guidance on the application of SOLAS regulations II-2/9 and 13, approved Unified interpretations of SOLAS regulations II-2/9 and 13 (MSC.1/Circ.1511), as prepared by the Sub-Committee on Ship Design and Construction, at its second session (16 to 20 February 2015).

The Committee, at its 108th session (15 to 24 May 2024), with a view to providing more specific guidance on "safe position" in SOLAS regulation II-2/13.4, approved amendments to the unified interpretation, prepared by the Sub-Committee on Ship Design and Construction, at its tenth session (22 to 26 January 2024), as set out in the technical file.

This circular revokes MSC.1/Circ.1511.

### SOLAS regulations II-2/ 9 and 13

Regulation 9 discusses about functional requirement of ship's spaces in relation to boundaries, thermal insulation and fire integrity.

Regulation 13 discusses about means of escape from machinery spaces of cargo ships and passenger ships, including EEBD related requirement.

### Unified Interpretations of Reg. 9

At table 9.5 - Fire integrity of bulkheads separating adjacent spaces & table 9.6 - Fire integrity of decks separating adjacent space, the following items should be noted:

#### Decks and bulkheads

Decks and bulkheads to be insulated to "A-30" fire integrity are those boundaries of single spaces protected by their own fire-extinguishing system.

### Hatches

Class "A" fire integrity respectively does not apply to hatches fitted on open deck adjacent to ro-ro/vehicle spaces and on decks separating ro-ro/vehicle spaces, provided that such hatches are constructed of steel.

### Access doors

"A-0" fire integrity does not apply to access doors to ro-ro/vehicle spaces fitted on open decks, provided that such access doors are constructed of steel.

### Movable ramps

Movable ramps installed on decks referred to in Interpretation1 above which form boundaries of "A-30" fire integrity shall be constructed of steel and shall be insulated to "A-30" fire integrity, except for the "working parts" of such movable ramps (e.g. hydraulic cylinders, associated pipes/accessories) and members supporting such fittings which do not contribute to the structural strength of the boundary. Such movable ramps need not be subject to fire test. This is applicable to non-watertight doors used for loading/unloading of vehicles.

### Ventilation ducts

Where ducts for a ro-ro/vehicle spaces pass through other ro-ro/vehicle spaces without serving those spaces, each duct shall be insulated all along itself to "A-30" fire integrity in ways of other ro-ro/vehicle spaces unless the sleeves and fire dampers in compliance with SOLAS regulation II-2/9.7.3.1 in order to prevent spread of fire through the ducts are fitted.

### Ventilators

"A-0" fire integrity does not apply to ventilators constructed of steel fitted on open decks adjacent to ro-ro/vehicle spaces.

## Unified Interpretations of regulation II-2/13

### Regulations 13.3.3.2 and 13.3.3.3

The "Lowest open deck" should be a category (10) "Open deck" (as defined in SOLAS regulations II-2/9.2.3.3.2.2 and II-2/9.2.4.2.2.2) at the lowest height from baseline in way of accommodation spaces.

### Regulations 13.4.1.4, 13.4.1.6, 13.4.2.5 and 13.4.2.6

#### Main workshop

A "main workshop" means a compartment enclosed on at least three sides by bulkheads or gratings, usually containing welding equipment, metal working machinery and workbenches.

#### Machinery control rooms

A "machinery control room" means a space which serves for control and/or monitoring of machinery used for ship's main propulsion.

#### Continuous fire shelter

A "continuous fire shelter" means a route from a main workshop, or from a machinery control room, which allows safe escape, without entering the machinery space, to a location outside the machinery space. Such a continuous fire shelter need not be a protected enclosure as envisaged by SOLAS regulation II-2/13.4.1.1 or II-2/13.4.2.1.1. The boundaries of the continuous fire shelter shall be at least "A-0" class divisions and be protected by self-closing "A-0" class doors. The continuous fire shelter shall have minimum internal dimensions of at least 800 mm x 800 mm for vertical trunks and 600 mm in width for horizontal trunks, and shall have emergency lighting provisions. The figures below represent typical arrangements of the continuous fire shelters through trunks or through spaces/rooms to a location outside the machinery space, which should be considered as effective.

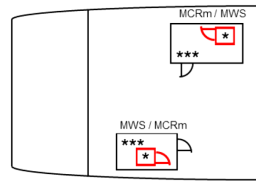


Figure 1 – Single room escape via trunk

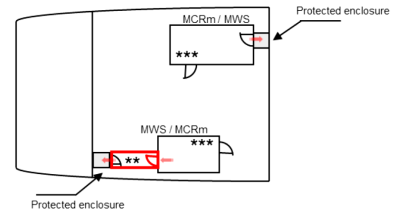


Figure 2 – Single room escape via protected enclosure

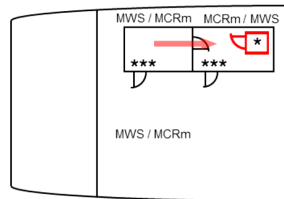


Figure 3 – Room to room escape via trunk

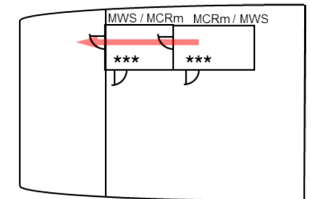


Figure 4 – Room to room direct escape

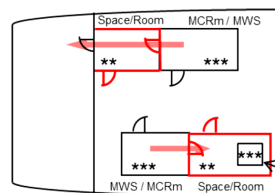


Figure 5 – Room to room escape via trunk other space/room

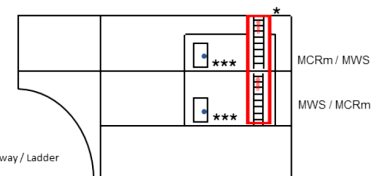


Figure 6 – Room to room escape via trunk (different decks)

MCRm: Machinery Control Room

MWS: Main Workshop

\* Vertical trunk (minimum dimensions: 800 mm x 800 mm) enclosing ladders or stairways to be at least "A-0" class divisions and to be protected by self-closing "A-0" class doors

\*\* Horizontal trunk (minimum width: 600 mm) to be at least "A-0" class divisions and to be protected by self-closing "A-0" class doors

\*\*\* Fire integrity not required

### Regulation 13.4.1

A "safe position" can be any space, such as steering gear spaces where hydraulic oils for the steering gear equipment are stowed, and special category spaces and ro-ro spaces, from which access is provided and maintained clear of obstacles to the embarkation decks. This excludes lockers and storerooms, cargo spaces and spaces where flammable liquids are stowed.

Inclined ladders/stairways in machinery spaces being part of, or providing access to, escape routes but not located within a protected enclosure should not have an inclination greater than  $60^\circ$  and should not be less than 600 mm in clear width. Such requirement need not be applied to ladders/stairways not forming part of an escape route, only provided for access to equipment or components, or similar areas, from one of the main platforms or deck levels within such spaces (regulation II-2/13.4.1).

Machinery spaces may include working platforms and passageways, or intermediate decks at more than one deck level. In such case, the lower part of the space should be regarded as the lowest deck level, platform or passageway within the space. At deck levels, other than the lowest one, where only one means of escape other than the protected enclosure is provided, self-closing fire doors should be fitted in the protected enclosure at that deck level. Smaller working platforms in-between deck levels, or only for access to equipment or components, need not be provided with two means of escape (regulation II-2/13.4.1.1).

A protected enclosure providing escape from machinery spaces to an open deck may be fitted with a hatch as means of egress from the enclosure to the open deck. The hatch should have minimum internal dimensions of 800 mm x 800 mm (regulation II-2/13.4.1.1.1).

Internal dimensions should be interpreted as clear width, so that a passage having diameter of 800 mm is available throughout the vertical enclosure, as shown in figure 7, clear of ship's structure, with insulation and equipment, if any. The ladder within the enclosure can be included in the internal dimensions of the enclosure. When protected enclosures include horizontal portions their clear width should not be less than 600 mm. Figure 7 is given as example of some possible arrangements which may be in line with the above interpretation (regulation II-2/13.4.1.1.1).

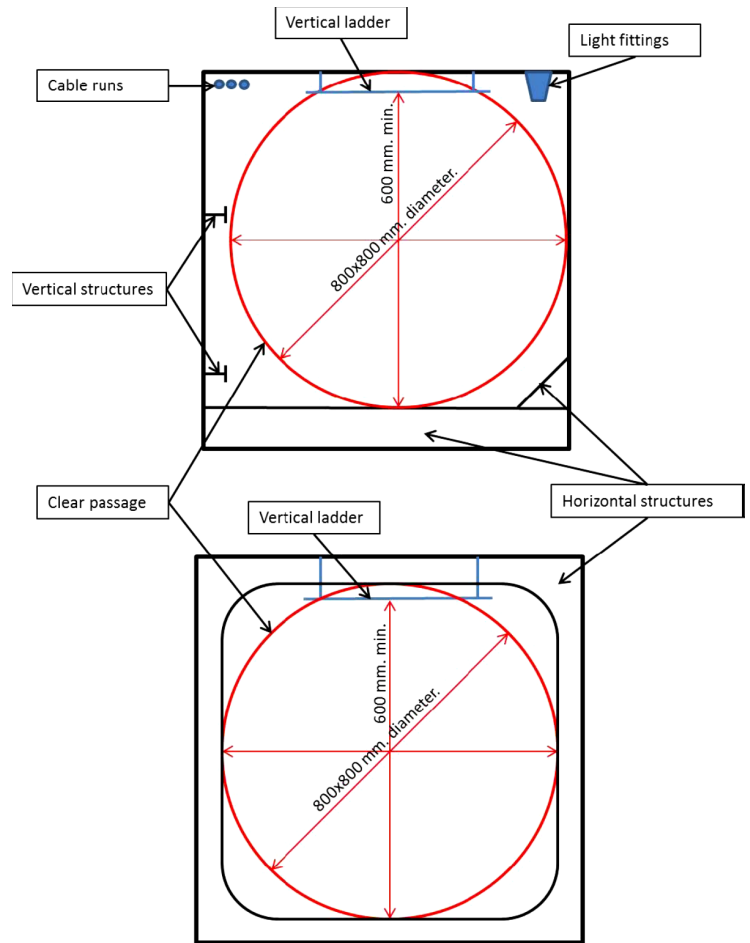


Figure 7

#### Regulation 13.4.2

A "safe position" can be any space, such as steering gear spaces where hydraulic oils for the steering gear equipment are stowed, and vehicle and ro-ro spaces, from which access is provided and maintained clear of obstacles to the open deck. This excludes cargo spaces, lockers and storerooms, cargo pump-rooms and spaces where flammable liquids are stowed.

Inclined ladders/stairways in machinery spaces being part of, or providing access to, escape routes, but not located within a protected enclosure should not have an inclination greater than 60° and should not be less than 600 mm in clear width. Such requirement need not be applied to ladders/stairways not forming part of an escape route, only provided for access to equipment or components, or similar areas, from one of the main platforms or deck levels within such spaces (regulation II-2/13.4.2.1).

Machinery spaces of category A may include working platforms and passageways, or intermediate decks at more than one deck level. In such case, the lower part of the space should be regarded as the lowest deck level, platform or passageway within the space. At deck levels, other than the lowest one, where only one means of escape other than the protected enclosure is provided, self-closing fire doors should be fitted in the protected enclosure at that deck level. Smaller working platforms in-between deck levels, or only for access to equipment or components, need not be provided with two means of escape (regulation II-2/13.4.2.1).

A protected enclosure providing escape from machinery spaces of category A to an open deck may be fitted with a hatch as means of egress from the enclosure to the open deck. The hatch should have minimum internal dimensions of 800 mm x 800 mm (regulation II-2/13.4.2.1.1).

Internal dimensions should be interpreted as clear width, so that a passage having diameter of 800 mm is available throughout the vertical enclosure, as shown in figure 8, clear of ship's structure, with insulation and equipment, if any. The ladder within the enclosure can be included in the internal dimensions of the enclosure. When protected enclosures include horizontal portions their clear width should not be less than 600 mm. Figure 8 is given as example of some possible arrangements which may be in line with the above interpretation (regulation II-2/13.4.2.1.1).

In Machinery spaces other than those of category A, which are not entered only occasionally, the travel distance should be measured from any point normally accessible to the crew, taking into account machinery and equipment within the space (regulation II-2/13.4.2.3).

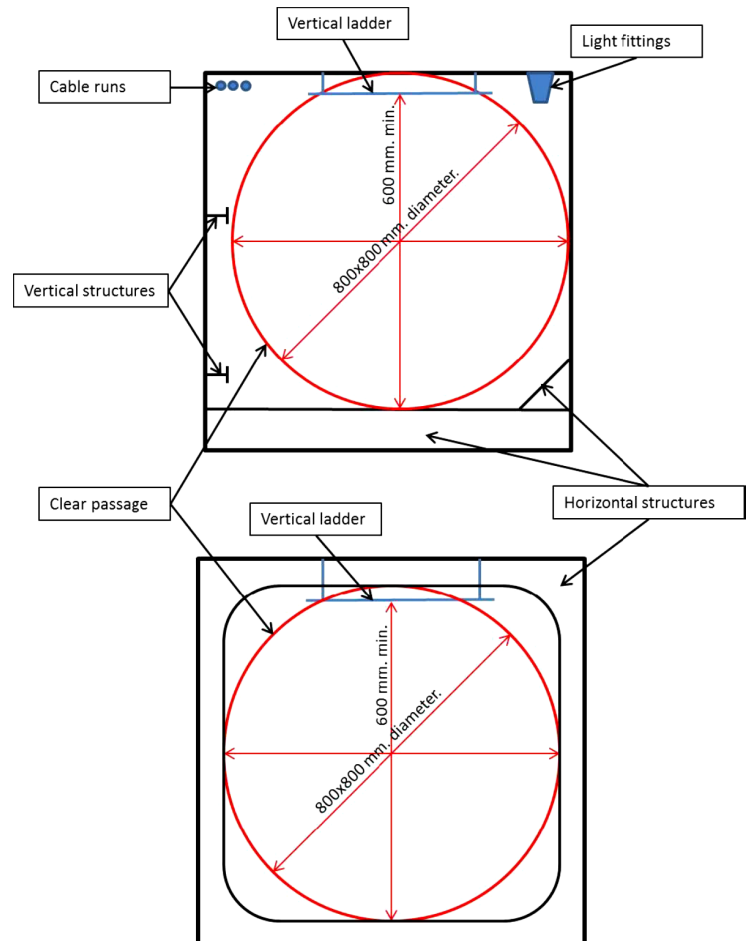


Figure 8

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