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**THÔNG BÁO KỸ THUẬT TÀU BIỂN**  
**TECHNICAL INFORMATION ON SEA-GOING SHIPS**

**Ngày 08 tháng 12 năm 2015**

**Số thông báo: 034TI/15TB**

*Nội dung: Áp dụng sửa đổi, bổ sung của Công ước SOLAS theo Nghị quyết MSC.365(93) về lối thoát từ buồng máy.*

Kính gửi: Các chủ tàu/ công ty quản lý tàu biển

Các đơn vị thiết kế tàu biển

Các nhà máy đóng tàu

Các chi cục Đăng kiểm tàu biển

Tại khóa họp thứ 93 (tháng 5 năm 2015), Ủy ban An toàn hàng hải (MSC) của Tổ chức Hàng hải quốc tế (IMO), đã thông qua Nghị quyết MSC.365(93) về sửa đổi, bổ sung đối với Công ước Quốc tế về an toàn sinh mạng con người trên biển năm 1974 (SOLAS), có hiệu lực từ ngày 01/01/2016.

Theo sửa đổi, bổ sung nói trên, các mục mới 4.2.4, 4.2.5 và 4.2.6 được bổ sung vào Quy định II-2/13 “Lối thoát” - áp dụng cho tàu hàng từ 500 GT trở lên được đóng từ ngày 01/01/2016 như sau:

1. Tất cả các thang nghiêng/cầu thang với các bậc thang hở (open tread) trong buồng máy là một phần hay tạo ra lối đi đến lối thoát, nhưng không được bố trí bên trong cấu trúc bọc bảo vệ (protected enclosure), thì phải được làm bằng thép. Thang nghiêng/cầu thang như vậy phải có tấm che bằng thép gắn ở mặt dưới để bảo vệ cho người sử dụng lối thoát không bị tác động của nhiệt và ngọn lửa từ phía dưới.
2. Hai lối thoát phải được trang bị cho buồng điều khiển máy (machinery control room)/xưởng cơ khí chính (main workshop) bố trí trong buồng máy. Tối thiểu một lối thoát phải có cấu trúc che chắn lửa liên tục (continuous fire shelter) đến vị trí an toàn ở ngoài buồng máy.

Từ ngữ “cấu trúc che chắn lửa liên tục” (continuous fire shelter), “buồng điều khiển máy” (machinery control room), “xưởng cơ khí chính” (main workshop) và một số

giải thích thống nhất đối với Quy định II-2/13 của Công ước SOLAS được nêu tại MSC.1/Circ.1511 của IMO.

Chúng tôi xin gửi kèm theo Thông báo kỹ thuật này phần liên quan đến nội dung nêu trên của Nghị quyết MSC.365(93) và Thông tư MSC.1/Circ.1511; đề nghị các Quý Đơn vị lưu ý áp dụng theo đúng quy định đối với tàu hàng từ 500 GT trở lên được đóng từ ngày 01/01/2016.

Thông báo kỹ thuật này được nêu trong mục: *Thông báo của VR/ Thông báo kỹ thuật TB* của trang tin điện tử Cục Đăng kiểm Việt Nam: <http://www.vr.org.vn>.

Nếu Quý cơ quan cần thêm thông tin về vấn đề nêu trên, đề nghị vui lòng liên hệ:

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Xin gửi đến các Quý Đơn vị lời chào trân trọng./.

***Nơi nhận:***

- Như trên;
- TB, QP, CN, CTB, VRQC, TTTT;
- Lưu TB./.

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**ANNEX 1**

**RESOLUTION MSC.365(93)**  
**(adopted on 22 May 2014)**

**AMENDMENTS TO THE INTERNATIONAL CONVENTION  
FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED**

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as "the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I thereof,

HAVING CONSIDERED, at its ninety-third session, amendments to the Convention, proposed and circulated in accordance with article VIII(b)(i) thereof,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2015, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3 INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2016 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

5 REQUESTS ALSO the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

## **Part D**

### **Escape**

#### **Regulation 13 – Means of escape**

- 11 The following two new paragraphs are added after paragraph 4.1.4:

*"4.1.5 Inclined ladders and stairways*

For ships constructed on or after 1 January 2016, all inclined ladders/stairways fitted to comply with paragraph 4.1.1 with open treads in machinery spaces being part of or providing access to escape routes but not located within a protected enclosure shall be made of steel. Such ladders/stairways shall be fitted with steel shields attached to their undersides, such as to provide escaping personnel protection against heat and flame from beneath.

*4.1.6 Escape from main workshops within machinery spaces*

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the main workshop within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space."

- 12 The following three new paragraphs are added after paragraph 4.2.3:

**"4.2.4 Inclined ladders and stairways**

For ships constructed on or after 1 January 2016, all inclined ladders/stairways fitted to comply with paragraph 4.2.1 with open treads in machinery spaces being part of or providing access to escape routes but not located within a protected enclosure shall be made of steel. Such ladders/stairways shall be fitted with steel shields attached to their undersides, such as to provide escaping personnel protection against heat and flame from beneath.

**4.2.5 Escape from machinery control rooms in machinery spaces of category "A"**

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the machinery control room located within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space.

**4.2.6 Escape from main workshops in machinery spaces of category "A"**

For ships constructed on or after 1 January 2016, two means of escape shall be provided from the main workshop within a machinery space. At least one of these escape routes shall provide a continuous fire shelter to a safe position outside the machinery space."

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MSC.1/Circ.1511  
5 June 2015

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

1 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 II-2/13, approved Unified interpretations of SOLAS regulations II-2/9 and II-2/13, as prepared by the Sub-Committee on Ship Design and Construction, at its second session (16 to 20 February 2015), as set out in the annex.

2 Member Governments are invited to apply the Unified interpretations of SOLAS regulations II-2/9 and II-2/13 and to bring them to the attention of all parties concerned.

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## ANNEX

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

#### REGULATION II-2/9 – CONTAINMENT OF FIRE

##### Tables 9.5 and 9.6:

#### 1 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.

#### 2 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.

#### 3 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.

#### 4 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.

#### 5 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.

#### 6 Ventilators

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

**REGULATION II-2/13 – MEANS OF ESCAPE**

**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 chapter II-2, regulations 9.2.3.3.2.2 and 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**

**1 Main workshop**

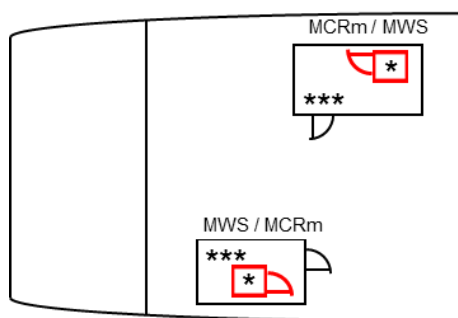
A "main workshop" means a compartment enclosed on at least three sides by bulkheads or gratings, usually containing welding equipment, metal working machinery and workbenches.

**2 Machinery control rooms**

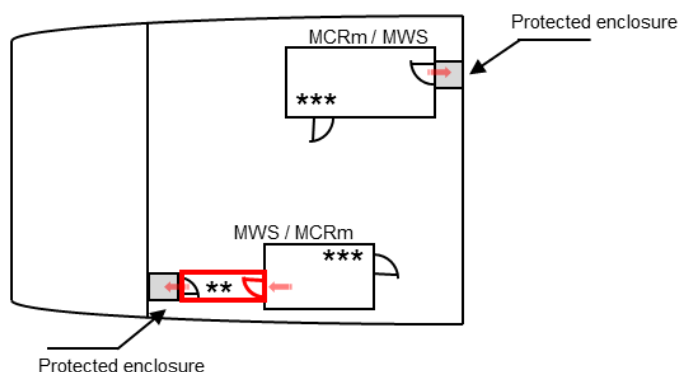
A "machinery control room" means a space which serves for control and/or monitoring of machinery used for ship's main propulsion.

**3 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**

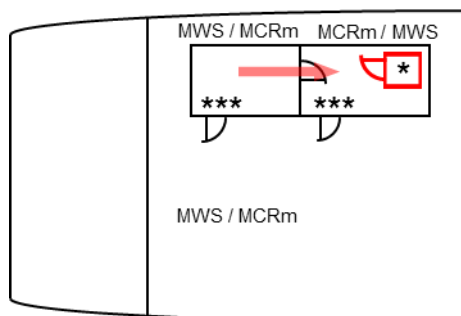


Figure 3 – Room to room escape via trunk

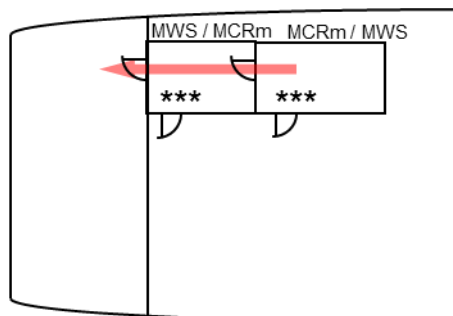


Figure 4 – Room to room direct escape

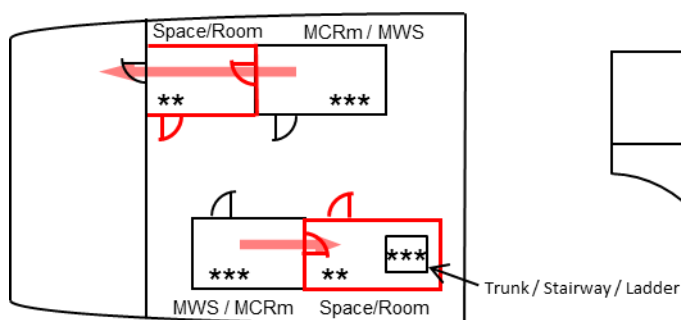


Figure 5 – Room to room escape via other space/room

MCRm: Machinery Control Room  
MWS: Main Workshop

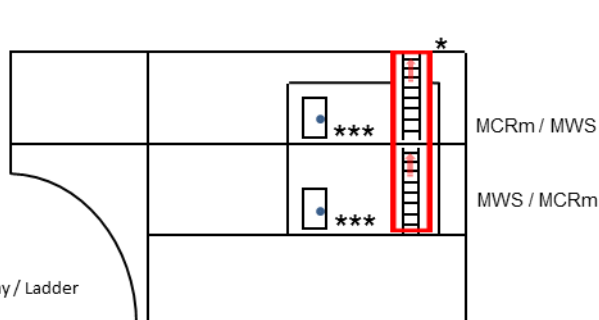


Figure 6 – Room to room escape via trunk (different decks)

- \* 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

1 A "safe position" can be any space, excluding lockers and storerooms irrespective of their area, cargo spaces and spaces where flammable liquids are stowed, but including special category spaces and ro-ro spaces, from which access is provided and maintained clear of obstacles to the embarkation decks (regulations II-2/13.4.1.1.1 and 13.4.1.4).

2 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-2/13.4.1).

3 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.

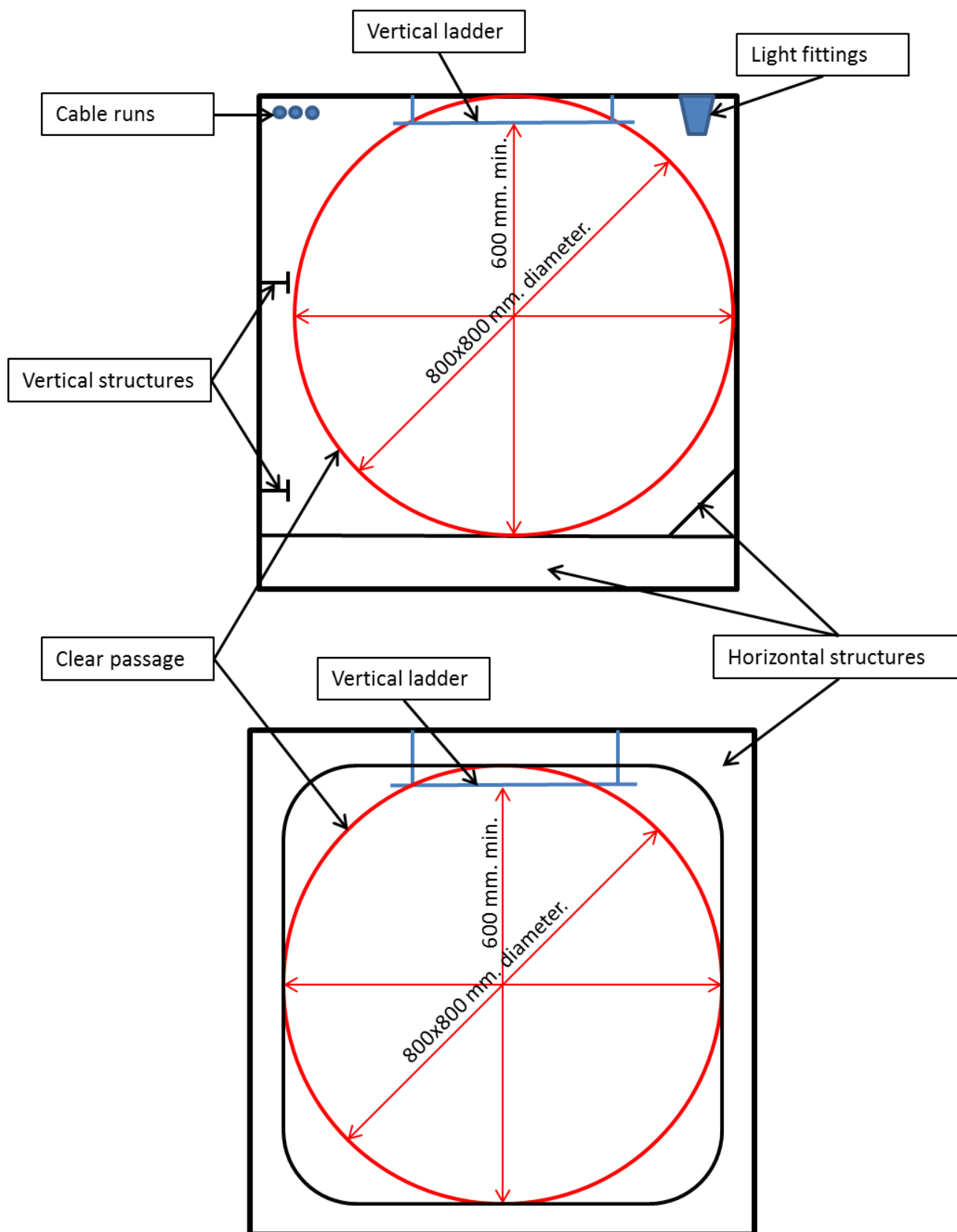


Smaller working platforms in-between deck levels, or only for access to equipment or components, need not be provided with two means of escape (regulation II-2/13.4.1.1).

4 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).

5 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

1 A "safe position" can be any space, excluding cargo spaces, lockers and storerooms irrespective of their area, cargo pump-rooms and spaces where flammable liquids are stowed, but including vehicle and ro-ro spaces, from which access is provided and maintained clear of obstacles to the open deck (regulation II-2/13.4.2.1.1).

2 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).

3 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).

4 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).

5 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).

6 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

