

Subject

Fire Protection Systems and Appliances for the Marshall Islands flag vessels

# **ClassNK**

## ***Technical Information***

No. TEC-0900  
Date 3 April 2012

To whom it may concern

The Marshall Islands Government informed ClassNK the special requirements for Fire Protection Systems and Appliances for the Marshall Islands flag vessels (Marine Notice No.2-011-14 Rev.2/12) as follows.

### 1. Use of Halon systems

SOLAS '74, Reg.II-2/10 permits the use of Halons as fire extinguishing media on ships built before 1 October 1994. It is not established a phase-out date for existing Halon systems. However, it should be noted that the release of Halons into the atmosphere when testing existing systems is prohibited. In addition, the European Commission considers that supply of a non-EU flagged ship in an EU-port with Halon an illegal export. Therefore, in a case where Halon is discharged for whatever reason, refilling of such systems on non-EU flagged ships with Halon is not possible and that ship will be detained until a new fixed fire-fighting system is installed on board. See reference Marshall Islands Marine Notice 2-011-11, for additional information.

### 2. Spare charges and Refilling for portable fire extinguishers

- (1) Spare charges should be provided for 100% of the first 10 extinguishers and 50% of the remaining fire extinguishers capable of being recharged onboard. Not more than 60 total spare charges are required.
- (2) For fire extinguishers which can not be recharged by the crew, additional portable fire extinguishers of the same quantity, type, capacity and number as determined in above (1) should be provided in lieu of spare charges.
- (3) Instructions for recharging the extinguishers should be carried on board. Periodic refilling of the cylinders should be in accordance with the manufacturer's recommendations. Lacking same, refill is required when the extinguishing media starts to lose effectiveness. Partially emptied extinguishers should also be recharged. Only refills approved for the fire extinguisher in question may be used for recharging.

(To be continued)

#### NOTES:

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### 3. Additional portable fire extinguishers

- (1) Vessels constructed on or after 1 January 2009 should use the attached table shown in MSC.1/Circ.1275 as reference for determining the number and arrangement of portable fire extinguishers in accommodation spaces, service spaces, control spaces, control stations, machinery spaces of category A, other machinery spaces, cargo spaces, weather deck and other spaces onboard ship. Vessels which may not comply with the MSC.1/Circ.1275 should be brought into compliance by the first renewal or intermediate Safety Equipment survey coming after 1 November 2011.
- (2) For vessels constructed prior to 1 January 2009, Shipowners/Operators are encouraged to implement the unified interpretation of MSC.1/Circ.1275.
- (3) In the case where that the additional portable fire extinguishers provided onboard, the additional spare charges should be provided onboard in accordance with (1) and (2) in paragraph 2.
- (4) In the case where that the additional portable fire extinguishers and additional spare charges provided onboard, the information should be written in fire control plans onboard.

### 4. Emergency Escape Breathing Devices (EEBDs)

- (1) SOLAS '74 requires at least two(2) EEBDs to be located in the accommodations and additional EEBDs to be placed in the machinery spaces. The "machinery spaces" means Category A Machinery Spaces such as engine rooms and boiler rooms. Auxiliary Machinery Spaces such as Steering Gear Compartments, Refrigeration Machinery Rooms, Bow Thruster Compartments, and alike do not have to be fitted with EEBDs.
- (2) Inasmuch as MSC/Circ.849, Guidelines for the Performance, Location, Use and Care of Emergency Escape Breathing Devices, is referenced in SOLAS Chap.II-2/Reg.13.3.4 and Reg.13.4.3, the guidelines contained in the Circular are treated as mandatory.
- (3) For compliance with the last sentence in Paragraph 4.6 of MSC/Circ.849, only those control spaces and workshops that are remotely located from the machinery space escape route need be considered.
- (4) In achieving compliance with paragraph 4.6 of MSC/Circ.849, a minimum of two(2) EEBDs should be located on each level of the machinery space. If a machinery space contains an enclosed primary escape trunk having a door at each level, only one(1) EEBD need be located on each level.

The term "level" should be interpreted as meaning a deck where watchstanding personnel reside, workshops and control stations are located, or the crew may be employed during routine maintenance. In essence, two(2) EEBDs are required only on those deck "levels" where people are likely to be employed. Platform decks that serve to divide long ladders into segments and partial decks where personnel are not likely to be employed for any significant period of time are not considered as "levels" and do not require EEBDs.

(To be continued)

5. Alternative fixed gas fire-extinguishing media

Marshall Islands recognizes that there are other media(e.g.NOVEC<sup>TM</sup> 1230 fluid, INERGEN<sup>®</sup>, FM 200<sup>®</sup>, etc.) that can be used in fixed gas fire-extinguishing system for machinery spaces and cargo pump rooms. Use of such alternatives shall be subject to approval with any attached conditions, as appropriate, by Marshall Islands and in accordance with SOLAS Chap.II-2 requirements for alternative fire-fighting systems and relevant guidance(MSC/Circ848, MSC.1/Circ.1267, MSC/Circ.1007, MSC.1/Circ.1165, MSC.1/Circ.1386 etc.).

6. A fire-extinguishing system giving equivalent protection for a fixed gas fire-extinguishing system

Water supplies as defined in SOLAS Reg.II-2/ 19.3.1.2 are considered as an acceptable alternative for the ineffective fixed gas fire-extinguishing system, for ships when allowed to carry any of the cargoes contained in table 2 of MSC.1/Circ.1395.

For any questions about the above, please contact:

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1. MSC.1/Circ.1275

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Ref. T4/4.01

MSC.1/Circ.1275  
3 June 2008

**UNIFIED INTERPRETATION OF SOLAS CHAPTER II-2 ON THE NUMBER AND  
ARRANGEMENT OF PORTABLE FIRE EXTINGUISHERS ON BOARD SHIPS**

1 The Maritime Safety Committee, at its eighty-fourth session (7 to 16 May 2008), with a view to providing more specific guidance for vague expressions such as “to the satisfaction of the Administration”, which are open to different interpretations contained in IMO instruments, approved the Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships prepared by the Sub-Committee on Fire Protection at its fifty-second session, set out in the annex.

2 Member Governments are invited to use the annexed unified interpretation as guidance when applying relevant provisions of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships on or after 1 January 2009 and to bring the unified interpretation to the attention of all parties concerned.

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## ANNEX

### UNIFIED INTERPRETATION ON THE NUMBER AND ARRANGEMENT OF PORTABLE FIRE EXTINGUISHERS ON BOARD SHIPS

#### 1 Scope and application

1.1 The unified interpretation provides guidance on the number and arrangement of portable fire extinguishers on board ships as required by SOLAS regulations II-2/10.3, II-2/10.5.1.2, II-2/10.5.2.2, II-2/10.5.3.2.2, II-2/10.5.4, II-2/18.5.1.1, II-2/18.5.1.2, II-2/19.3.7 and II-2/20.6.2.1 and chapter 4 of the International Code for Fire Safety Systems (FSS Code).

1.2 This unified interpretation should be used for ships constructed on or after 1 January 2009. For ships constructed before 1 January 2009, shipowners are encouraged to implement this unified interpretation.

1.3 SOLAS regulation II-2/10.3.2.3 (regarding the allowed spaces to arrange carbon dioxide fire extinguishers) and paragraph 4.2.1.1.1 of the FSS Code (regarding the quantity of medium of portable fire extinguishers) should be applied to ships constructed on or after 1 January 2009.

#### 2 Unified interpretation on the number and arrangement of portable fire extinguishers in the various types of spaces on board ships

2.1 The table below should be applied for the number and arrangement of portable fire extinguishers in accommodation spaces, service spaces, control stations, machinery spaces of category A, other machinery spaces, cargo spaces, weather deck and other spaces on board ships.

2.2 SOLAS regulation II-2/10.3.2.2 requires that “one of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space. It is recommended that the remaining portable fire extinguishers in the public spaces and workshops be located at or near the main entrances and exits.

2.3 If a space is locked when unmanned, portable fire extinguishers required for that space may be kept inside or outside the space.

2.4 Unless expressly provided by the Unified interpretations of SOLAS chapter II-2, the FSS Code, the FTP Code and related fire test procedures (MSC/Circ.1120) or SOLAS regulation II-2/10.5, the following table should be applied to the number and arrangement of portable fire extinguishers in machinery spaces of category A.

### 3 The selection of portable fire extinguishers

The selection of portable fire extinguishers should be appropriate to the fire hazard(s) in the space in accordance with the Guidelines for marine portable fire extinguishers, as adopted by resolution A.951(23). The classes of portable fire extinguishers in the table are only for reference.

**Table – Minimum numbers and distribution of portable fire extinguishers in the various types of spaces on board ships**

Type of spaces		Minimum number of extinguishers	Class(es) of extinguisher(s)
Accommodation spaces	Public spaces	1 per 250 m <sup>2</sup> of deck area or fraction thereof	A
	Corridors	Travel distance to extinguishers should not exceed 25 m within each deck and main vertical zone	A
	Stairway	0	
	Lavatories, cabins, offices, pantries containing no cooking appliances	0	
	Hospital	1	A
Service spaces	Laundry drying rooms, pantries containing cooking appliances	1 <sup>2</sup>	A or B
	Lockers and store rooms (having a deck area of 4 m <sup>2</sup> or more ), mail and baggage rooms, specie rooms, workshops (not part of machinery spaces, galleys)	1 <sup>2</sup>	B
	Galleys	1 class B and 1 additional class F or K for galleys with deep fat fryers	B , F or K

Type of spaces		Minimum number of extinguishers	Class(es) of extinguisher(s)
Service spaces	Lockers and store rooms (deck area is less than 4 m <sup>2</sup> )	0	
	Other spaces in which flammable liquids are stowed	In accordance with SOLAS regulation II-2/10.6.3	
Control stations	Control stations (other than wheelhouse)	1	A or C
	Wheelhouse	2, if the wheelhouse is less than 50 m <sup>2</sup> only 1 extinguisher is required <sup>3</sup>	A or C
Machinery spaces of category A	Central control station for propulsion machinery	1, and 1 additional extinguisher suitable for electrical fires when main switchboards are arranged in central control station	A and/or C
	Vicinity of the main switchboards	2	C
	Workshops	1	A or B
	Enclosed space with oil-fired inert gas generators, incinerators and waste disposal units	2	B
	Separately enclosed room with fuel oil purifiers	0	
	Periodically unattended Machinery spaces of category A	1 at each entrance <sup>1</sup>	B
Other spaces	Workshops forming part of machinery spaces and other machinery spaces (auxiliary spaces, electrical equipment spaces, auto – telephone exchange rooms, air conditioning spaces and other similar spaces)	1	B or C
	Weather deck	0 <sup>4</sup>	B

Type of spaces		Minimum number of extinguishers	Class(es) of extinguisher(s)
	Ro-ro spaces and vehicle spaces	No point if space is more than 20 m walking distance from an extinguisher at each deck level <sup>4, 5</sup>	B
	Cargo spaces	0 <sup>4</sup>	B
	Cargo pump-room	2	B
	Helidecks	In accordance with SOLAS regulation II-2/18.5.1	B

**NOTES:**

- 1 A portable fire extinguisher required for a small space may be located outside and near the entrance to that space.
- 2 For service spaces, a portable fire extinguisher required for that small space placed outside or near the entrance to that space may also be considered as part of the requirement for the space in which it is located.
- 3 If the wheelhouse is adjacent with the chartroom and has a door giving direct access to chartroom, no additional fire extinguisher is required in the chart room. The same applies to safety centres if they are within the boundaries of the wheelhouse in passenger ships.
- 4 Two portable fire extinguishers, each having a capacity of not less than 6 kg of dry powder or equivalent, should be provided when dangerous goods are carried on the weather deck, in open ro-ro spaces and vehicle spaces, and in cargo spaces as appropriate. Two portable fire extinguishers, each having a suitable capacity, should be provided on weather deck for tankers.
- 5 No portable fire extinguisher needs to be provided in cargo holds of containerships if motor vehicles with fuel in their tank for their own propulsion are carried in open or closed containers.