

Subject:

Guidance on SOLAS chapter II-2 as amended in 2000
(part 2)

ClassNK

Technical Information

No. TEC-0467

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To whom it may concern

As stated in ClassNK Technical Information No. TEC-0453, a proposal for IMO unified interpretations on the provisions of SOLAS chapter II-2 as amended in 2000 was discussed at IMO MSC75 held in 15 to 24 May. Summary is shown below. Based on this results and instructions on emergency escape breathing devices (EEBDs) which ClassNK received thereafter from the administrations of Belize, Panama, Hong Kong, Denmark and Malaysia, section 1 for EEBDs and section 3 for fire control plan in the attachment (1) to the Information No. TEC-0453 have been amended as shown in Attachment.

Summary of discussions at MSC75

- (1) The proposal for the interpretations on EEBDs in E/R was not agreed and the matter was entrusted to each flag administration.
- (2) Initial surveys for SE are regarded as the first survey.

For any questions about the above, please contact:

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Attachment to
ClassNK Technical Information No. TEC-0467

Guidance on SOLAS Chapter II-2 as amended in 2000 (part 2)

1. Emergency escape breathing device, EEBD (II-2/13.3.4, 13.4.3)

A proposal for unified interpretations on EEBDs in E/R was not agreed at MSC75 and the matter was entrusted to each flag administration. Therefore, number and location of EEBDs in E/R should be in accordance with the following draft of Guidance for the Survey and Construction of Steel Ships, the requirements of which are clearer than those of the previous ClassNK provisional interpretations. In case where interpretations/special requirements are provided by flag administrations, they should also be followed. These regulations are applied to new ships and existing ships. Existing ships are required to comply with the requirements not later than the date of first survey after 1 July 2002 by regulation II-2/1.2.2.2. (Refer to the item (2).) However, the requirement of regulation 13.3.4.1 for the provision of spare EEBDs is not applied to existing ships.

(1) The number and location

Draft of Guidance for the Survey and Construction of Steel Ships (approved by third meeting of the Technical Committee in the year 2001)

- (a) II-2/13.3.4
EEBDs should be provided in accommodation spaces as stated below.
- (i) For cargo ships, in principle, 2 sets in fire control stations and/or internal stairway enclosures which may be used as an escape route and 1 set of spare.
 - (ii) For passenger ships carrying not more than 36 passengers, 2 sets for each main vertical zone except those defined in the regulation 13.3.4.5, and a total of 2 sets of spare.
 - (iii) For passenger ships carrying more than 36 passengers, 4 sets for each main vertical zone except those defined in the regulation 13.3.4.5, and a total of 2 sets of spare.
- (b) II-2/13.4.3.1
EEBDs should be provided in machinery spaces of category A where crew is normally or periodically employed as stated below.
- (i) Machinery spaces of category A containing machinery used for main propulsion:
 - 1. One EEBD in the engine control room, if located within the space
 - 2. One EEBD in the workshop, if any
 - 3. One EEBD, in principle, on each deck or platform level near the escape ladder other than a fire shelter, an escape trunk or a watertight access door to safe spaces
 - 4. Notwithstanding the provisions of -1. to -3. above, EEBDs may be omitted in the following cases, provided that total number of the device in the space is three or more.

- Where the engine control room is located adjacent to the work shop, either device may be omitted.
 - Where the engine control room and/or the work shop is located adjacent to an escape route from the engine room, the device for such control room and/or work shop may be omitted.
- (ii) In machinery spaces of category A other than those of (i):
One EEBD, in principle, on each deck or platform level near the escape ladder other than a fire shelter, an escape trunk or a watertight access door to safe spaces. Where easy escape to a safe space is surely granted, EEBDs may not be required.

Instructions from flag administrations

Instructions on interpretations /on special requirements for EEBDs have been received from each government of Bahamas, Cyprus, Isle of Man, Liberia, Malta, Marshall Islands, Singapore, Greece, Belize, Panama, Hong Kong, Denmark and Malaysia. Main differences between the above draft of Guidance and those of each flag administration for cargo ships are shown below.

Bahamas

- (a) The number of spares should be 50% of the total number carried.

Cyprus

- (a) The number of EEBD to be fitted in the machinery spaces should be equal to the number of crew stipulated in the Document of Safe Manning for the Engine Department. However, the maximum number need not exceed eight devices.
- (b) Two additional devices should be kept on board as spare.

Isle of Man

- (a) EEBDs for use in the accommodation spaces should be stored in the same compartment as the fireman's outfits.
- (b) 50% spares are required for each required in the accommodation spaces and machinery spaces with a maximum of four for each space.

Liberia

- (a) If the ship has a sprit house, the minimum two EEBDs per house should be provided.
- (b) A minimum of four EEBDs including two in the control room and one for each escape ladder should be placed in the machinery spaces.
- (c) Additional EEBDs should be made available for individual carriage for the maximum number of persons who may enter the pump room during normal operations or a minimum of two EEBDs should be installed in the pump room.
- (d) At least one EEBD training device should be provided.
- (e) Spares equal to at least 10% of the total EEBDs kept on board but no more than 4 spares should be provided.

Malta

- (a) At least two spares should be provided onboard.
- (b) At least one EEBD solely for training purpose should be provided onboard and should be marked accordingly.

Marshall Islands

- (a) There should be, as a minimum, two EEBDs on each level (at each deck or platform level) of the machinery space.

Singapore

- (a) While at least 2 sets of the EEBD are required to be fitted in accommodation spaces by the regulation, placement of additional EEBDs in work spaces (control stations, service spaces) should be considered where there are a number of crew spending a considerable amount of time in them.
- (b) The various factors (refer to the instruction) should be taken into account when considering placement and number of EEBDs in machinery spaces.
- (c) A minimum of two spares, one for accommodation spaces and another for engine room should be provided.
- (d) EEBDs for training should be provided.

Greece

- (a) The number of EEBD to be provided in the machinery spaces should be as follows.
 - (i) One set for each emergency exit.
 - (ii) One set for each control space.
 - (iii) One set for each work shop.
 - (iv) The totally number of EEBD should not be less than the number of crew normally on duty in these spaces.
- (b) The above mentioned EEBDs should be located in clearly visible locations near emergency exits.
- (c) The spare EEBD to be provided in accommodation should be located in a safe, accessible area (bridge, fire stations, control stations).

Belize

- (a) The number of EEBDs to be carried within machinery spaces should be not less than the total number of persons during watch.
- (b) A minimum of two devices should be carried in the engine room of ships provided with Unattended Machinery Spaces.
- (c) In addition to any spare designated for accommodation spaces, a spare EEBD solely for the machinery space should be carried onboard.

Panama

- (a) The number of EEBDs in machinery spaces should be the maximum number of persons working during a normal day of operation, but the maximum number will not exceed six devices.

- (b) In addition to two EEBDs in accommodation spaces, in principle, a minimum of two spares should be provided either in the area of navigation bridge, fire control station or storage room. Regardless of the requirements specified in SOLAS as amended in 2000, this is applicable to existing ships also.

Hong Kong

The following requirements should be complied with unless personnel in the machinery spaces and cargo pump rooms are individually carrying EEBDs.

- (a) For machinery spaces of category A where ignition sources are contained and crews may occupy the space for a considerable time, the location and numbers of the EEBDs should be arranged to provide one set each for engine control room and workshop and one set each to be located at the lowest accessible area of each escape ladder. If access from engine control room to a safe space is no more than one deck level above the engine control room and such safe space is isolated from the machinery spaces, EEBD is not required for that engine control room. For workshop that has direct access to a safe space similar to the engine control room, EEBD is also not required. Furthermore, EEBD is also not required for the enclosed escape trunk
- (b) For machinery spaces other than category A, one set is to be located at the lowest or farthest accessible area of the escape ladder or route. Where the maximum travel distance to the door connected to a safe space is 5 metres or less, EEBD is not required.
- (c) For cargo pump rooms of tankers, one set is to be located at the lowest platform area of each pump room.
- (d) In addition to the required provision of EEBDs specified in paragraphs (a) to (c) above, the minimum spare provision shall be either:
- (i) 50% spare EEBDs of the required provision; or
 - (ii) 20% spare EEBDs plus 50% spare charges/bottles of the required provision.

Denmark

- (a) The EEBDs in accommodation space shall be located as far as possible together with the fire-fighter's outfit.
- (b) The EEBDs to be provided in machinery spaces of category A shall be as follows.
- (i) One EEBD in the engine control room, if the room is located within the machinery space.
 - (ii) One EEBD for each platform deck along the open escape ladder.
 - (iii) One EEBD in workshops, if the workshop has no direct access to an escape trunk or sheltered escape way.
- (c) Other machinery spaces shall be equipped with one EEBD if it is considered necessary based on the number of persons normally working in the space, the lay out of the space, if the space is a part of an escape way and if the space contains internal combustion engines or fuel oil units.

Malaysia

- (a) In machinery spaces of category A other than those containing internal combustion machinery used for main propulsion, one EEBD is to be provided near the escape routes

(other than escape routes protected by trunk or a watertight access door to safe space) at each deck or platform level of the spaces. Where the space is located on one level only and an easy escape to safe space is surely granted, EEBDs are not required.

- (b) The number of spare EEBDs shall be a minimum of 50% of the actual provision.

(2) Interpretation of “first survey”

Unified interpretation such that initial surveys for SE are regarded as the first survey has been approved at MSC75. Therefore, ships during construction delivered on or after 1 July 2002 are to comply with the requirements of EEBDs and indication in the fire control plan not later than the delivery date.

(3) Approval of EEBD

- (a) For Japanese flag ships, EEBDs should be of certified by the Japanese Government/the Ship Equipment Inspection Society of Japan.
- (b) For non-Japanese flag ships, acceptance of EEBDs should be dealt with as shown below until another instruction is given.
- (i) EEBDs certified by the Japanese Government/the Ship Equipment Inspection Society of Japan may be accepted as meeting the ClassNK requirements.
- (ii) EEBDs listed in below Table 1 or certified by the notified body under the EC Directive with their certificate may be accepted as meeting the ClassNK requirements.
- (iii) EEBDs certified under SOLAS (MSC/Circ. 849) and EN standard (compressed air type; EN1146, oxygen circulated type; EN400) by a member Government of SOLAS, an IACS member Society or an authorized party may be accepted as meeting the ClassNK requirements.
- (iv) Other EEBD than above-mentioned may be accepted based on review by Material and Equipment Department.
- (c) For Singaporean flag ships, EEBDs are to be of meeting above (b)(i) or (ii), or of certified under SOLAS requirements by an IACS member Society or a party authorized by the government.

Table 1

Manufacturer	Type
MSA AUER GmbH	UNISCAPE 15H S-Cap-Air
OCENCO, U.S.A.	M-20.2
Protector Technologies Group	Elsa-10-B, Elsa-15B, Elsa-10-B-AS Elsa-15B-AS
Draeger Ltd.	Draeger Saver CF10 Draeger Saver CF15

(4) Indication in the fire control plans

Locations of EEBDs should be marked by an appropriate symbol in the fire control plan giving its legend. For verification of fire control plans, refer to section 3.

2. Maintenance plans/training manuals/fire safety operational booklets(II-2/14, 15,16)

(See the ClassNK Technical Information No.TEC-0453.)

3. Fire Control Plan (II-2/15.2.4)

For existing ships, fire control plan should be revised accompanying to the provision of EEBD.(refer to section 1.(4).) ClassNK will, at request, check that the required items of information are contained in the fire control plan and make endorsement on the plan as shown below. This procedure is also applied to new ships.

- (1) The shipowner or the shipbuilder should submit necessary number of copies of the fire control plan, at least those to be provided onboard, to ClassNK office who is expected to carry out the survey.
- (2) The surveyor in charge should check that the required items of information are shown appropriately and that they are consistent with the actual condition of the ship. For existing ships, particular attention should be paid to EEBDs and check that they are located in compliance with the requirements of SOLAS chapter II-2 as amended in 2000, the draft of Guidance stated in section 1 above and the requirements of the flag administration.
- (3) Regarding the special requirements “the maximum number of persons working during a normal day of operation” of Panamanian government, the surveyor should check the number with the shipowner and enter with such information as shown below.

Example

“The maximum number of persons working in E/R during a normal day of operation; (the number of persons)” in the fire control plan.

- (4) For ships flying a flag having special requirements similar to above (3), a statement should be put in the plan in the same manner.
- (5) Upon the confirmation, the surveyor should make endorsement on the plan by:
 - i) putting statement reading “Verified that this plan contains the items of information required by SOLAS Chapter II-2 as amended in 2000” together with the date and place of the survey; and
 - ii) signing and putting the round NK stamp.
- (6) When pre-approval is requested by shipowners (or shipyards) to ClassNK office with copies of the fire control plan, the surveyor should approve and return them with following example on the plan after checking if EEBDs are located in compliance with the requirements stated in section 1 in addition to above (3) and (4).

Example

“Approval for the number of EEBD only.”

“EEBD arrangement is subject to the attending surveyor’s satisfaction.”

IMO resolution A.654(16) providing guidelines on symbols used on fire control plan is expected to be revised based on ISO17631:2002 “Ships and marine technology – Shipboard plans for fire protection, life-saving appliances and means of escape” in the future. Taking this into account, it is recommended to use symbols given in the ISO standard when newly preparing or revising a fire control plan unless otherwise instructed by the flag administration.

4. Protection of cargo pump-rooms (II-2/4.5.10)

(See the ClassNK Technical Information No.TEC-0453.)

5. Fixed local application fire-fighting system (II-2/10.5.6, MSC/Circ.913)

(See the ClassNK Technical Information No.TEC-0453.)

6. Other NK provisional interpretations

(See the ClassNK Technical Information No.TEC-0453.)

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