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### GUIDANCE ON SAFETY DURING ABANDON SHIP DRILLS USING LIFEBOATS

- The Maritime Safety Committee, at its seventy-ninth session (1 to 10 December 2004), recalled that, at its seventy-fifth session (15 to 24 May 2002), it considered the issue of the unacceptably high number of accidents with lifeboats that have been occurring over recent years in which crew were being injured, sometimes fatally, while participating in lifeboat drills and/or inspections.
- 2 The Committee further observed that most accidents fell under the following categories:
  - .1 failure of on-load release mechanism;
  - .2 inadvertent operation of on-load release mechanism;
  - .3 inadequate maintenance of lifeboats, davits and launching equipment;
  - .4 communication failure:
  - .5 lack of familiarity with lifeboats, davits, equipment and associated controls;
  - .6 unsafe practices during lifeboat drills and inspections; and
  - .7 design faults other than on-load release.
- The Committee recalled that, at its seventy-fifth session, it had approved MSC/Circ.1049 on Accidents with lifeboats, to draw the attention of manufacturers, shipowners, crews and classification societies to the personal injury and loss of life that may follow inadequate attention to the design, construction, maintenance and operation of lifeboats, davits and associated equipment, and urged all concerned to take necessary action to prevent further accidents with lifeboats. The Committee further recalled that, at its seventy-seventh session, it had endorsed the intention of the Sub-Committee on Ship Design and Equipment, in co-operation with the Sub-Committee on Standards of Training and Watchkeeping, to develop further IMO guidance.
- 4 Accordingly, the Committee approved the Guidance on safety during abandon ship drills using lifeboats, as set out in the annex.
- 5 The Committee noted that the Guidance developed for lifeboats has relevance, in general, for emergency drills with other life-saving systems and should be taken into account when such drills are conducted.
- 6 Member Governments are invited to bring the Guidance to the attention of their maritime Administrations, relevant industry organizations, manufacturers, shipowners, crews and classification societies.

Member Governments are further invited, while enforcing the provisions of SOLAS regulation IX/4.3, to ensure that the provisions of the annex are addressed through the Safety Management System of the company, as appropriate.

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### **ANNEX**

### GUIDANCE ON SAFETY DURING ABANDON SHIP DRILLS USING LIFEBOATS

#### 1 GENERAL

#### 1.1 Introduction

- 1.1.1 It is essential that seafarers are familiar with the life-saving systems on board their ships and that they have confidence that the systems provided for their safety will work and will be effective in an emergency. Frequent periodic shipboard drills are necessary to achieve this.
- 1.1.2 Crew training is an important component of drills. As a supplement to initial shore side training, on board training will familiarize crew members with the ship systems and the associated procedures for use, operation and drills. On these occasions, the objective is to develop appropriate crew competencies, enabling effective and safe utilization of the equipment required by the 1974 SOLAS Convention. The time limits set out in SOLAS for ship abandonment should be considered as a secondary objective when conducting drills.

## 1.2 Drill frequency

Experience has shown that holding frequent drills furthers the goals of making the crew familiar with the life-saving systems on board their ships and increasing their confidence that the systems will work and will be effective in an emergency. Drills give the crew opportunity to gain experience in the use of the safety equipment and in co-operation. The ability to cope with an emergency and handle the situation, if the ship needs to be abandoned, needs to be well rehearsed. However, frequent crew changes sometimes make it difficult to assure that all on board have had the opportunity to participate in drills if only the minimum required drills are conducted. Therefore, consideration needs to be given to scheduling drills as necessary to ensure all on board have an early opportunity to become familiar with the systems on board.

#### 1.3 Drills must be safe

- 1.3.1 Abandon ship drills should be planned, organized and performed so that the recognized risks are minimized and in accordance with relevant shipboard requirements of occupational safety and health.
- 1.3.2 Drills provide an opportunity to verify that the life-saving system is working and that all associated equipment is in place and in good working order, ready for use.
- 1.3.3 Before conducting drills, it should be checked that the lifeboat and its safety equipment have been maintained in accordance with the manufacturer's instructions, as well as noting all the precautionary measures necessary. Abnormal conditions of wear and tear or corrosion should be reported to the responsible officer immediately.

### 1.4 Emphasis on learning

Drills should be conducted with an emphasis on learning and be viewed as a learning experience, not just a task to meet a regulatory requirement to conduct drills. Whether they are emergency drills required by SOLAS or additional special drills conducted to enhance the competence of the crew members, they should be carried out at safe speed. During drills, care should be taken to ensure that everybody familiarizes themselves with their duties and with the equipment. If necessary, pauses should be made during the drills to explain especially difficult elements.

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The experience of the crew is an important factor in determining how fast a drill or certain drill elements should be carried out.

# 1.5 Planning and organizing drills

- 1.5.1 The 1974 SOLAS Convention requires that drills shall, as far as practicable, be conducted as if there was an actual emergency.\* This means that the entire drill should, as far as possible, be carried out. The point is that, at the same time, it should be ensured that the drill can be carried out in such a way that it is safe in every respect. Consequently, elements of the drill that may involve unnecessary risks need special attention or may be excluded from the drill.
- 1.5.2 In preparing for a drill, those responsible should review the manufacturers' instruction manual to assure that a planned drill is conducted properly. Those responsible for the drill should assure that the crew is familiar with the guidance provided in the life-saving system instruction manual.
- 1.5.3 Lessons learned in the course of a drill should be documented and made a part of follow-up shipboard training discussions and planning the next drill session.
- 1.5.4 The lowering of a boat with its full complement of persons is an example of an element of a drill that may, depending on the circumstances, involve an unnecessary risk. Such drills should only be carried out if special precautions are observed.

## 2 ABANDON SHIP DRILLS

## 2.1 Introduction

It is important that the crew who operate safety equipment on board are familiar with the functioning and operation of such equipment. The 1974 SOLAS Convention requires that sufficiently detailed manufacturers' training manuals and instructions be carried on board, which should be easily understood by the crew. Such manufacturers' manuals and instructions should be accessible for everyone on board and observed and followed closely during drills.

# 2.2 Guidance to the shipowner

- 2.2.1 The shipowner should ensure that new safety equipment on board the company's ships has been approved and installed in accordance with the provisions of the 1974 SOLAS Convention and the International Life-saving Appliances (LSA) Code.
- 2.2.2 Procedures for holding safe drills should be included in the Safety Management System (SMS) of the shipping companies. Detailed procedures for elements of drills that involve a special risk should be evident from workplace assessments adjusted to the relevant life-saving appliance.
- 2.2.3 Personnel carrying out maintenance and repair work on lifeboats should be qualified accordingly.\*\*

<sup>\*</sup> Refer to SOLAS regulation III/19.3.1.

<sup>\*\*</sup> Refer to the Guidelines for periodic servicing and maintenance of lifeboats, launching appliances and on-load release gear (MSC/Circ.1093).

# 2.3 Lifeboats lowered by means of falls

- 2.3.1 In MSC/Circ.1049, on Accidents with lifeboats, the Maritime Safety Committee identified the following causes of accidents, to which special attention should be paid on board:
  - .1 failure of on-load release mechanism;
  - .2 inadvertent operation of on-load release mechanism;
  - .3 inadequate maintenance of lifeboats, davits and launching equipment;
  - .4 communication failure;
  - .5 lack of familiarity with lifeboats, davits, equipment and associated controls;
  - .6 unsafe practices during lifeboat drills and inspections; and
  - .7 design faults other than on-load release.
- 2.3.2 During drills, those responsible should be alert for conditions and situations stemming from the above items and should bring them to the attention of the responsible person for appropriate action. Feedback and improvement recommendations to the shipowner, the Administration and the system manufacturer are important elements of the marine safety system.
- 2.3.3 Before placing persons onboard a lifeboat, it is recommended that the boat first be lowered and recovered without persons on board to ascertain that the arrangement functions correctly. The boat should then be lowered into the water with only the number of persons on board necessary to operate the boat.
- 2.3.4 To prevent lashings or gripes from getting entangled, proper release should be checked before swinging out the davit.

## 2.4 Free-fall lifeboats

- 2.4.1 The monthly drills with free-fall lifeboats should be carried out according to the manufacturer's instructions, so that the persons who are to enter the boat in an emergency are trained to embark the boat, to take their seats in a correct way and to use the safety belts; and also are instructed on how to act during launching into the sea.
- 2.4.2 When the lifeboat is free-fall launched as part of a drill, this should be carried out with the minimum personnel required to manoeuvre the boat in the water and to recover it. The recovery operation should be carried out with special attention, bearing in mind the high risk level of this operation. Where permitted by SOLAS, simulated launching should be carried out in accordance with the manufacturer's instructions, taking due note of MSC/Circ.1137 on Guidelines for simulated launching of free-fall lifeboats.