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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 1, *Lifesaving and fire protection*.

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Introduction

This document is intended to provide means of evaluating and determining the maximum evacuation capacity of marine evacuation systems (MES). As a consequence of MES systems being installed on large passenger ships, there has been an increase in system capacity during recent years. This document provides a uniform test regime while reducing the risk of injury to test personnel by reducing the number of persons required to complete the test. The capacity determined through this document is based on trial conditions as described in referenced IMO instruments and does not take into account factors such as adverse weather conditions, ship-specific installations or arrangements, or the physical capabilities of the passengers to be evacuated.

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Ships and marine technology — Marine evacuation systems — Determination of capacity

1 Scope

This document specifies a procedure for the evaluation and determination of the capacity of a marine evacuation system as required by the International Maritime Organization Life-Saving Appliance Code (LSA Code) and as an alternative to the procedure specified in Resolution MSC.81(70) part 1/12.6.1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IMO Revised recommendation on testing of life-saving appliances [IMO Resolution MSC.81(70) (as amended through IMO Resolution MSC.321(89)]

IMO International Life-Saving Appliance (LSA) Code [IMO Resolution MSC.48(66) (as amended through IMO Resolution MSC.320(89)]

IMO International Convention for the Safety of Life at Sea (SOLAS), 1974 [as amended through Res. MSC.47(66)]

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
available evacuation time
total period allowed for evacuation of the ship

Note 1 to entry: 30 min for SOLAS passenger ships or in 17 min and 40 s for passenger ships subject to the High Speed Craft (HSC) Code.

3.2
approved installation height
maximum installation height for which the *MES* (3.5) is to be approved

3.3
associated survival craft
craft forming part of and used in conjunction with a *marine evacuation system* (3.5) and which are not directly accessible via the *passage* (3.7)

3.4
handling of associated survival craft
deployment, retrieval, inflation, mooring, and other actions necessary to prepare the *survival craft* (3.9) for boarding

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3.5
marine evacuation system
MES
appliance for the rapid transfer of persons from the embarkation deck of a ship to a *floating platform* (3.8) or *survival craft* (3.9) by means of a *passage* (3.7)

3.6
MES crew
personnel required for the safe operation of the *MES* (3.5)

Note 1 to entry: These personnel may include the person in overall charge at the evacuation station, platform crew and others as needed.

3.7
passage
integral component of a *marine evacuation system* (3.5) to provide safe descent of persons from the embarkation station to the *floating platform* (3.8) or *survival craft* (3.9)

Note 1 to entry: The passage can be an inflatable or rigid slide, a vertical passage or any other arrangement providing the same function.

3.8
floating platform
inflatable structure which may be fitted to the bottom of the *passage* (3.7) to hold evacuees awaiting entry to *survival craft* (3.9)

Note 1 to entry: In some system configurations, a survival craft may also serve as a floating platform.

3.9
survival craft
craft capable of sustaining the lives of persons in distress from the time of abandoning the ship

3.10
survival craft unit
multiple pre-connected *survival craft* (3.9) deployed together

3.11
system capacity
total number of evacuees which can be evacuated by a given *MES* (3.5) within the *available evacuation time* (3.1)

4 Test arrangement

4.1 Test rig

As an alternative to testing from a floating ship, a test rig which deploys the MES over water may be used for the determination of MES capacity.

4.2 Position of the test rig

The side of the test rig, simulating a ship's side, shall be parallel to, and in line with, the outer boundary of the pier.

4.3 Installation height of MES

The entrance to the passage shall be positioned at 15 m (±1 m) above the waterline or at least at the height for which the system is to be approved if this is less than 15 m (±1 m) above the waterline.

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