

## **Notes on provision, number and arrangement of immersion suits on board of SOLAS cargo ships after 2006-07-01 (Rev.4)**

Requirements for immersion suits are presently laid down in following documents:

SOLAS 74/78 as amended, Reg. III/7.3 and III/32.3

IMO Res. MSC.152(78) - Revision of SOLAS Reg. III/32.3

LSA-Code(IMO Res. MSC.48(66) 2.3

IMO Res. MSC.81(70) as amended by MSC.200(80) -Testing of LSA

MSC/Circ. 980 – Evaluation and test reports for LSA

MSC/Circ. 1047 and 1114 - Guidelines for inspection and testing

MSC.1/Circ. 1243 – Unified Interpretation of SOLAS Chapter III

MSC.1/Circ.1278 – Guidance on wearing immersion suits in totally enclosed lifeboats

IMO Res. MSC.216(82) – Amendments to SOLAS Reg.III/32

### **Existing SOLAS regulation III/32.3 for immersion suits was completely amended by IMO Res.MSC.152(78) and is applicable to:**

- all cargo vessels latest at the first safety equipment survey\* on or after **2006-07-01** (\* = annual, periodical or renewal survey, and, in addition, in the case of ships under construction, the initial survey)
- vessel trading solely in tropical waters may be exempted by the flag state. No exemption is possible for bulk carriers.

### **Number:**

- one immersion suit for every person (basis is the maximum number of persons for which LSA are provided as indicated in the Record E of the Cargo Ship Safety Equipment Certificate)
- additional immersion suits may be required at remotely located watch or work stations, depending on the design of the vessel and the flag-state.  
Liferafts located at the bow or stern in accordance with SOLAS III/31.1.4 (distance to survival crafts > 100m) are regarded as “remotely located survival crafts”. The area where these remotely located survival crafts are stowed has to be provided with a minimum number of 2 additional immersion suits (MSC.1/Circ.1243).
- For detailed information see document “Self-Check” and the circulars of the flag states which are presently available and which are attached to this document. If national interpretations of flag states exist, they are binding for vessels sailing under such flags.

**In August 2006 IACS issued Unified Interpretation UI SC 213 “Arrangement for remotely located survival craft”: A minimum number of 2 immersion suits and 2 lifejackets will have to be provided in the vicinity of the liferaft(s) required by SOLAS III/31.1.4.**

**UI SC 213 will be applicable for newbuildings contracted for construction on or after 1 January 2007.**

### **Types:**

1. Immersion suits without inherent insulation. Always to be worn in connection with warm clothes and in conjunction with an approved lifejacket.
2. Immersion suits with inherent insulation which are only able to fulfil the buoyancy requirements of MSC.81(70) with a lifejacket. These suits must always be worn together with an approved lifejacket.

3. Immersion suits with inherent insulations which fulfil the buoyancy requirements without carrying a lifejacket. These suits are equipped with an approved light and whistle and a buoyancy pillow at the back. These suits need not to be worn together with a lifejacket, however the normal complement of lifejackets has to be provided on board.

**Sizes:**

Approved suits are tested for a standard range of weights and sizes. It is important that each crewmember has access to an immersion suit of appropriate size (MSC.216(82), III/32). Suits should be selected accordingly.

**Immersion Suits for Children:**

Presently there are no IMO performance standards for immersion suits for children; even though some flag states require that suitable child immersion suits are provided if children are travelling on board of a cargo ship.

**Arrangement:**

Usual storage locations for immersion suits are:

- crew cabins,
- boxes near assembly stations or close to embarkation routes to the survival crafts
- centrally located stores which are accessible from the open deck (e.g. safety store)
- remotely located watch or workstations

**Approval:**

Immersion suits shall be approved in accordance with IMO Res.MSC.81(70). Approval may be granted by Germanischer Lloyd, notified bodies of the European Union, flag-state authorities or recognized organisations acting on their behalf.

Vessels sailing under a flag which applies 96/98/EC (European Marine Equipment Directive MED) shall be provided with MED-approved suits which are marked with the steering wheel symbol.

Approved suits can be viewed via the GL home page ([www.gl-group.com /client support/approval finder](http://www.gl-group.com/client-support/approval-finder)) or via the European MARED database ([www.mared.org](http://www.mared.org)).

**Maintenance:**

- Monthly shipboard inspections (SOLAS III/20.7) by crew using guideline of MSC/Circ.1047.
- At intervals not exceeding 3 years, starting from the date of manufacture, an air pressure test has to be carried out. This should preferably be carried out by a suitable shore based facility (MSC/Circ.1114) but may also be done on board if suitable equipment and trained and certified personnel is available.

**Marking of immersion suits:**

Immersion suits without inherent insulation have to be marked with instructions that the suit is to be worn in conjunction with warm clothing.

Note: It is not an IMO requirement to mark the suit with call sign, ship's name or home port !

**Indication in the fire control & safety plan:**

Alterations of the number of immersion suits and stowage locations shall be indicated in the fire control & safety plan. The revision shall be endorsed by the attending GL surveyor.

Further the number of immersion suits indicated in Record E of the Safety Equipment Certificate and form F410 is to be amended accordingly during periodic SAFEQ surveys.

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