



ST. VINCENT AND THE GRENADINES

MARITIME ADMINISTRATION

CIRCULAR N° SOL 001 – Rev. 2

**SOLAS 74 as Amended – Ch. III – Revised Reg. 32.3
IMO Resolution MSC.152 (78), MSC/Circ. 1046, MSC/Circ. 1047
MSC/Circ. 1114 and MSC/Circ. 1243**

Carriage of immersion suits and thermal protective aids on cargo ships

**TO: SHIPOWNERS, SHIPS' OPERATORS & MANAGERS, MASTERS
SURVEYORS TO FLAG STATE ADMINISTRATION
RECOGNIZED ORGANIZATIONS**

APPLICABLE TO: ALL SHIPS

ENTRY INTO FORCE: Date of Circular

Monaco, 17th March 2009

Revised SOLAS Reg. III/32.3, (in force 1st July 2006), requires one immersion suit to be provided for each person on board a cargo ship with additional suits to be provided at work and watch-keeping stations which are "remotely located" from the immersion suit storage location.

St. Vincent and The Grenadines Maritime Administration anticipates that immersion suits would normally be stored in either one or more central(s) e.g. adjacent to lifeboat stations, or will be distributed through the crew cabins. Therefore both the navigation bridge and the machinery space are, for the purpose of this Regulation, regarded as "remotely located".

The minimum number of additional suits to be provided is linked to the number of persons on watch on the navigating bridge and the main machinery space. The St. Vincent and The Grenadines Maritime Administration considers two additional suits on the navigating bridge, and two additional suits within the machinery space to be the minimum necessary on the majority of vessels. On smaller vessels where there is one watch-keeper in the machinery space the number of additional immersion suits may be reduced to one.

Additional suits must be provided at any other remotely located work and watch stations including remotely located survival craft carried out in accordance with SOLAS 74 as amended, Chapter III, Regulation 31.1.4. Immersion suits of an appropriate size shall be provided at these locations for the number of persons normally on watch or working on these locations at any time.

The Owner or Managing Company in consultation with the Master of the vessel is responsible for identifying and declaring such locations to the relevant Recognized Organization which issues the SOLAS Convention certificate.

To illustrate the above principle, a machinery space which is normally operated in the unmanned mode would require two additional immersion suits to account for periods when watch keeping is undertaken (which may be reduced to one on smaller vessels where there is one watch-keeper in the machinery space), but would not require additional suits for those working within the space during the day.

As far as remotely located survival craft station is concerned, please refer to our Circular N° SOL 032.

The revised regulation also permits exemption from carriage of immersion suits when a cargo vessel which is not a bulk carrier operates exclusively within warm climates e.g. tropical waters. The St. Vincent and The Grenadines Maritime Administration considers a warm climate to extend between latitudes 30° N and 30° S.

The St Vincent and The Grenadines Maritime Administration highlights the implementation of MSC.1/Circ.1278 "Guidance on wearing immersion suits in totally enclosed lifeboats" dated 23rd May 2008 which is attached to the present Circular.

Monthly inspection of the immersion suits and thermal protective aids shall be done in accordance with MSC/Circ. 1047 annexed herewith.

A three year inspection of the immersion suits and thermal protective aids shall be done in accordance with MSC/Circ. 1114 annexed herewith.

Notwithstanding that paragraph 4 of MSC/Circ. 1114 recommends that the air pressure test be performed at a suitable shore-based facility.

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Ref. T3/1.02

MSC/Circ.1047
28 May 2002

**GUIDELINES FOR MONTHLY SHIPBOARD INSPECTION OF IMMERSION SUITS
AND ANTI-EXPOSURE SUITS BY SHIPS' CREWS**

1 The Maritime Safety Committee, at its seventy-fifth session (15 to 24 May 2002), recognizing that SOLAS regulation III/20.7 requires monthly inspection of life-saving appliances to be carried out by using the checklist required by SOLAS regulation III/36.1 to ensure that their operational readiness is maintained in service, approved Guidelines for monthly shipboard inspection of immersion suits and anti-exposure suits by ships' crews, as set out in the annex.

2 Member Governments are invited to bring the annexed Guidelines to the attention of all parties concerned, in conjunction with the relevant requirements of SOLAS regulations III/20.7 and 36.1.



Ref. T4/3.01

MSC/Circ.1114
25 May 2004

**GUIDELINES FOR PERIODIC TESTING OF IMMERSION SUIT AND
ANTI-EXPOSURE SUIT SEAMS AND CLOSURES**

1 The Maritime Safety Committee, at its seventy-eighth session (12 to 21 May 2004), recognizing that shipboard inspections of immersion suits and anti-exposure suits carried out in accordance with SOLAS regulation III/20.7 and MSC/Circ.1047 may not be adequate to detect deterioration of seams and closures of the suits due to adhesive ageing, and having considered the recommendation made by the Sub-Committee on Ship Design and Equipment at its forty-sixth session, approved the Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures, as set out in the annex.

2 Member Governments are invited to bring the annexed Guidelines to the attention of all parties concerned.

ANNEX**GUIDELINES FOR PERIODIC TESTING OF IMMERSION SUIT AND ANTI-EXPOSURE SUIT SEAMS AND CLOSURES**

- 1 Research performed by several Member Governments has demonstrated that the seams and closures of immersion suits and anti-exposure suits experience deterioration over time. The rate and severity of deterioration may vary widely, depending upon the specific components and procedures employed in the manufacture of the suit and the conditions under which the suit is stored. However, even under ideal conditions, the materials and adhesives used have a finite service life and will inevitably experience a reduction in strength and/or loss of watertightness with age.
- 2 The Guidelines for monthly shipboard inspection of immersion suits and anti-exposure suits (MSC/Circ.1047) are very helpful in identifying obvious problems with a suit, but do not adequately address deterioration of seams and closures (zippers, etc.) which may not be readily apparent by visual inspection. Such deterioration can be detected by pressurization of the suit with air, and testing of the seams and closures for leaks with a soapy water solution.
- 3 To ensure the maintenance of adequate strength and watertightness of seams and closures of immersion suits and anti-exposure suits with age, it is recommended that each suit be subjected to an air pressure test such as the following, at intervals not exceeding three years, or more frequently for suits over ten years of age:
 - .1 A suitable head piece, fitted with a means to inject air into the suit, should be inserted into the face orifice of the suit and secured so as to minimize leakage around the face seal. A low-pressure monitoring device, either integral to the fitting for air injection or as a separate device, should also be inserted. If the suit is fitted with detachable gloves and/or boots, the wrists and/or cuffs should be sealed by inserting a short length of suitable diameter plastic pipe and securing the gloves and/or boots with suitable wire ties or hose clamps. The zipper should be fully zipped, and any face flap closed. The suit should then be inflated to a pressure of 0.7 to 1.4 kPa (0.1 to 0.2 psi). If an auxiliary inflatable means of buoyancy is provided, it should be inflated through the oral valve to a pressure of 0.7 kPa (0.1 psi) or until firm to the touch.
 - .2 Each seam and closure of the suit - and each seam, oral tube and attachment points and joint or valve of any auxiliary inflatable means of buoyancy - should then be covered with a soapy water solution containing enough soap to produce bubbles (if leakage is noted at a foot valve to the extent that air pressure cannot be maintained, the valves should be sealed for the test).
 - .3 If leaks are revealed by the propagation of bubbles at seams or closures, the leaking areas should be marked and, after cleaning the suit thoroughly with fresh water and drying it, repaired in accordance with the suit manufacturer's recommendations.

4 It is recommended that the air pressure test be performed at a suitable shore-based facility equipped to make any necessary repairs in accordance with the manufacturer's recommendations. In view of the wide variety of materials and adhesives used in immersion suits and anti-exposure suits, it is strongly recommended that any repairs to a suit be carried out by a facility which has access to the original manufacturer's recommended servicing instructions, parts and adhesives, and suitably trained personnel. The air pressure test may be carried out on board ship if suitable equipment is available.

ANNEX**GUIDELINES FOR MONTHLY SHIPBOARD INSPECTION OF IMMERSION SUITS
AND ANTI-EXPOSURE SUITS BY SHIPS' CREWS**

When carrying out the inspection of immersion suits and anti-exposure suits required by SOLAS regulation III/20.7, the following procedure is recommended.

- 1 Check closures on storage bag as well as general condition of bag for ease of removal of suit. Ensure donning instructions are legible. Confirm that suit is the type and size identified on the bag.
- 2 Lay the suit on a clean, flat surface. Make sure the suit is dry inside and out. Visually check for damage. Rips, tears or punctures should be repaired in accordance with manufacturer's instructions by a suitable repair station*.
- 3 Check the zipper by sliding it up and down to check for ease of operation. Using lubricant recommended by the manufacturer, lubricate the front and back of the zipper and the slide fastener. If the zipper is not functional, the suit should be removed from service and discarded or returned to the manufacturer or a suitable repair station.
- 4 If fitted, check inflatable head support and/or buoyancy ring for damage and ensure that it is properly attached. Check inflation hose(s) for deterioration. At least quarterly, the head support/buoyancy ring should be inflated and tested for leaks (this test does not apply to integral inflatable lifejackets). Leaks should be repaired in accordance with manufacturers' instructions by a suitable repair station.
- 5 Check retro reflective tape for condition and adhesion. Replace if necessary.
- 6 If fitted, check whistle and expiration date of light and battery.
- 7 Replace suits in the bag with zippers fully opened.
- 8 The opportunity should be taken at such monthly inspections for the crew to practise donning the immersion suits or anti-exposure suits.

* A "suitable repair station" is one authorized by the suit manufacturer and/or acceptable to the Administration.