

# Merchant Marine Circular

Panama Maritime Authority  
General Directorate of Merchant Marine  
Control and Compliance Department

## MERCHANT MARINE CIRCULAR MMC-144

**To:** Shipowners/Operators, Company Security Officers, Legal Representatives of Panamanian Flagged Vessels, Panamanian Merchant Marine Consulates and Recognized Organizations (ROs).

**Subject:** Immersion Suits requirement, inspection and service.

**Reference:** Law No. 7 of October 27, 1977 - SOLAS 1974

- Law No. 12 of November 9, 1981 – SOLAS Protocol 1978
- Law No. 31 of July 11, 2007 – SOLAS Protocol 1988
- SOLAS Convention Regulation III/22.4 and 32.3
- Resolution MSC.152 (78) of May 20, 2004, adopted through Resolution No.106-OMI-05-DGMM of November 26, 2007.
- Resolution MSC.48 (66) of 4 May 1996 (LSA Code), adopted through Resolution No.106-OMI-20-DGMM of December 26, 2007
- Resolution MSC.216 (82) of December 8, 2006 adopted through Resolution No.106-OMI-02-DGMM of October 18, 2007.
- Circular MSC.Circ.1114 – of May 25<sup>th</sup>, 2004 – (Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures), adopted through Resolution No.106-OMI-52-DGMM of March 19, 2008.
- Circular MSC.1047 of May 28<sup>th</sup>, 2002 - Guidelines for Assessment of Thermal Protection (**only as recommendation**)

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This Merchant Marine circular replaces MMC No. 165.

### 1. Purpose

1.1. The purpose of this Merchant Marine Circular is to inform user regarding the full implementation of the carriage of immersion suits (including the hermetically packed) and anti-exposure suits on board the Panamanian flagged ships. Also to remind the shipowners, operators, and masters responsibility to ensure that ships are equipped with the correct equipment at all times.



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## 2. Definitions

2.1. IMS: immersion suits

## 3. Applicability

3.1. This circular applies to all cargo ships and to passenger ships as described in the SOLAS Regulation III/22.4 and 32.3.

## 4. Background

4.1. The Maritime Safety Committee (MSC) of the International Maritime Organization, adopted on May 20, 2004, through Resolution MSC.152(78) amendments to the International Convention for the Safety of the life at Sea (SOLAS), 74, as amended. These amendments include the replacing of paragraph 3 in SOLAS Regulation III/32 – Personal life-saving appliance, which entered into force on July 1, 2006.

4.2. During recent Port State Control (PSC) inspections of Panama Flag vessels, noting that the suit's seams, the glue used to attach the main zipper to the body of the suit, the lubrication used in the zipper, and the repairs carried out by the crew didn't follow the IMO Guidelines.

4.3. The probable cause may be linked to:

4.3.1. the way the suits have been stored and handled on board

4.3.2. fault/imperfect seams,

4.3.3. deterioration of the material due to aging

4.3.4. lack in the performance of monthly inspections and drills.

## 5. Immersion suits requirement

5.1. New cargo ships constructed after July 1, 2006 and existing cargo ships no later than the first safety equipment survey on or after July 1, 2006 shall carry immersion suits for every person onboard the ship subject to these regulations and based in the Safety Equipment Certificate (Form E). Suitable immersion Suits should also be provided for children where carried.

5.2. Any ship subject to this regulation will also provide additional immersion suits so that individuals who will be working some distance from the place where a crewman's immersion suit is stored. These places will include, but not limited to the Navigation Bridge, Engine Room, and any other places onboard the ship that in accordance with the type of ship should be considered as a permanent working



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place. On the above-mentioned places, the ship must carry two (2) Immersion suits because in an emergency it is unreasonable to expect a crewman could acquire the assigned immersion suit.

- 5.3. Immersion suits and thermal protective aids are to be assigned by the Master. It is recommended that they should be kept in the crew cabins along with life jackets.
- 5.4. For cargo ships an immersion suit of an appropriate size shall be provided for every person on board the ship required by SOLAS Regulation III/32.3.2.
- 5.5. All passenger ships shall carry for each lifeboat on the ship at least three immersion suits and in addition a thermal protective aid for every person to be accommodated in the lifeboat and not provided with an immersion suit required by SOLAS Regulation III/22.4.1 for passenger vessels.
- 5.6. It may be kept in the cabins of the assigned personnel. In addition, all persons in the crew of a rescue boat are to be provided with immersion suits if different from the persons in charge of the lifeboat noted above.
- 5.7. Sufficient number of immersion suits onboard not kept in airtight packaging for use during drills, for crew training purposes. The assigned number of suits should be identified according to the ship's Safety Management System.
- 5.8. For cargo vessels less than 85 meters in length other than oil tankers, chemical tankers and gas carriers operating above 30° North and below 30° South latitudes, where only life rafts are carried in accordance with SOLAS Regulation III/31.1.3, all persons are to be provided with immersion suits.
- 5.9. A ship other than bulk carrier as defined in SOLAS Regulation IX/1/ which is constantly engaged on voyages in Warm Climates, between Latitude 30° degrees North and 30° degrees South), may be exempted from the said requirements.
- 5.10. All immersion suits must comply with the requirements of Regulation 2.3 of the Life Saving Appliances Code published by the International Maritime Organization (IMO).
- 5.11. Ship shall continue to carry the number of Lifejackets Required by SOLAS Regulation III/7.2 when the immersion suits are classified as Lifejacket.

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## 6. Inspection and Service

### 6.1. Monthly shipboard inspection of immersion suits and anti-exposure suits by ships crews

6.1.1. The monthly inspection and the periodic testing of the immersion suit using conventional packing method should be carried out as required by SOLAS Regulation III/20.7 and MSC/Circ. 1047 adopted on 28 May 2002. The recommended procedure is as follows:

- 6.1.1.1. Check closures and general condition on storage bags for ease removal of suit,
- 6.1.1.2. Ensure donning instructions are legible,
- 6.1.1.3. Check the type and size identified on the bag is the same immersion suit inside the bag,
- 6.1.1.4. 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.
- 6.1.1.5. 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 manufacturers instructions by a suitable repair station ("suitable repair station" is one authorized by the suit manufacturer and/or acceptable as service supplier by the Recognized Organization).
- 6.1.1.6. 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.
- 6.1.1.7. Check retro reflective tape for condition and adhesion. Replace if necessary.
- 6.1.1.8. If fitted, check the whistle, expiration of light and battery.
- 6.1.1.9. The suits should be replaced in the bag with zippers fully opened.
- 6.1.1.10. The opportunity should be taken at such monthly inspections for the crew to practice donning the immersion suits or anti-exposure suits.

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**6.2.** The monthly inspection of the hermetically packed immersion suits which helps to preserve the equipment from adverse effects of environment, temperature and saltiness, have to be performed taking into account the following items:

**6.2.1.** Hermetically packed immersion suits should be packaged in a transparent container for monthly visual inspection;

**6.2.2.** The hermetic package must be of sufficient strength to prevent broken-ups during its stowage in ship's operations,

**6.2.3.** Hermetic package must also be capable to be opened with minimal efforts and without causing damages to the suit (usually a precut for opening is observed).

**6.2.4.** Manufacturers' instructions must be followed during the monthly inspection and test processes in case that the above indicated is not meet (5.2.1 to 5.2.3), (refer to MSC/Circ.1047 – dated May 28, 2002 - Guidelines for Monthly Shipboard Inspection of Immersion Suits and Anti-Exposure Suits by Ships Crews);

**6.2.5.** If during the visual inspection it is detected that any seal or the packing itself deteriorates, it must be replaced immediately;

**6.3. Periodic testing of immersion suit and anti-exposure suit seams and closures (Circular MSC.Circ.1114 – of May 25th, 2004 – Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures, adopted by Panama through Resolution No.106-OMI-52-DGMM of March 19, 2008:**

**6.3.1.** The MSC/Circ.1114 adopted by the IMO on 25 May 2004 set out the guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures with the purpose to detect deterioration of the seams and closures of the suits due to adhesive aging. Therefore, this Administration encourage to follow this guidelines.

**6.3.2.** The air pressure test required by MSC/Circ.1114 should be conducted at intervals not exceeding 3 years, including the hermetically packaged immersion suits.

**6.3.3.** For immersion suits more than 10 years of age, the air pressure test should be done annually (one (1) year elapsed from one air pressure test to another) from the next periodical survey of the Cargo Ship Safety Equipment Certificate, on or after 1 June 2023. In case there is no test report dated within 1 year, the surveyor should instruct to carry out the air pressure test at the earliest opportunity and a notation must be included in



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the ship's survey report.

**Note:** Given the adoption of the MSC/Circ.1114 "Guidelines for Periodic Testing of Immersion Suit and Anti-Exposure Suit Seams and Closures" please refer to Point 4 on the test performance and repairs, "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."

- 6.3.4.** Recognized Organizations are requested to include the air pressure test of Immersion Suit and Anti-Exposure Suit Seams and Closures in the items to be checked during the surveys for Cargo Ship Safety Equipment Certificate and Passenger Ship Safety Certificate.

**April 2023** – section 2 "definitions" added and next sections renumbered. "Note" is added below 6.3.3. Following points amended 6.3, 6.3.1, 6.3.2, 6.3.3.

**February 2023** – Subject and following points amended 1.1, 2.1, 3.1, 4, 4.4, 4.7, 5.1.1, 5.2.4, and 5.3.2. Point 4.6 renumbered. Added text in 3.2, 3.3, 5.1, 5.2.2, 5.2.3, 5.3, 5.3.1 and 5.3.4. References were updated.

**September, 2022** – Modification of paragraphs 1.1, 2.1, 4.3, 4.4, 4.6, 4.7 and inclusion of paragraphs 5.1 and 5.2.

**April, 2006** - paragraph 3.3.

**February, 2006.**

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Inquiries concerning the subject of this Merchant Marine Circular or any other request should be forward to:

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