
Carriage of Immersion Suits

Notice to ship owners, managers, Masters, Approved Nautical Inspectors, Recognised Organisations and surveyors

This Marine Notice supersedes BMA Information Bulletin No. 76

1. Purpose

- 1.1. This Marine Notice (MN) provides guidance on the carriage requirements for immersion suits, anti-exposure suits and thermal protective aids (TPAs).

2. Application

- 2.1. This Marine Notice applies to all ships, except:
- i. Paragraph 4 applies to cargo ships only, including Mobile Offshore Drilling Units/Mobile Offshore Units (MODUs/MOUs); and
 - ii. Paragraph 5 applies to passenger ships only:

3. Introduction

- 3.1. Chapter III of the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS), requires ships to be provided with immersion suits, anti-exposure suits and thermal protective aids.
- 3.2. An immersion suit is a protective suit which reduces the body heat loss of a person wearing it in cold water, complying with the requirements of section 2.3 of the International Life Saving Appliance Code (LSA Code).
- 3.3. An anti-exposure suit is a protective suit designed for use by rescue boat crews and marine evacuation system parties, complying with section 2.4 of the LSA Code.
- 3.4. A thermal protective aid (TPA) is a bag or suit made of waterproof material with low thermal conductance, complying with section 2.5 of the LSA Code.
- 3.5. The Bahamas Maritime Authority (BMA) occasionally receives requests for interpretation on the carriage requirements. This Notice outlines the minimum

requirements; however, the Company¹ is reminded of its obligation to provide all crew members with a safe working environment and place additional suits on board where necessary.

4. Carriage of immersion suits - cargo ships and MODUs/MOUs

- 4.1. Regulation 32.3 of Chapter III of SOLAS, 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.
- 4.2. One immersion suit shall be provided for each person on board. In any case, the number of suits must be not less than the number of persons shown on the ship’s Safety Equipment Certificate (or equivalent). The suits must be of approved type and provided in sizes appropriate to the crew and supernumeraries on board (if any), including children.
- 4.3. The immersion suits should be stored in one or more central locations adjacent to lifeboat stations or can be distributed throughout the crew cabins. Therefore, both the navigating bridge and the machinery space are regarded as “remotely located”.
- 4.4. The minimum number of additional suits to be provided shall cover the numbers of persons on watch on the navigating bridge and the main machinery space. The BMA considers two (2) additional suits on the navigating bridge, and two (2) additional suits within the machinery space to be the minimum required. On smaller ships where there is only one engine room watch-keeper the number of additional immersion suits in the machinery space may be reduced to one (1).
- 4.5. Additional immersion suits shall be provided at every remotely located work and/or watch station. The BMA interpretation of a remotely located work and/or watch station is a location where a person may be positioned on a regular or systematic basis, but not at a location where a person may be present only occasionally. The Company, in consultation with the Master of the ship, is responsible for identifying and declaring such locations to the Recognised Organisation which issues the ship’s Safety Equipment certificate, or equivalent.
- 4.6. To illustrate the above principle: a machinery space which is normally operated in the unmanned mode (UMS) would require two (2) additional immersion suits² to account for periods when watch keepers are in attendance but would not require additional suits for other crew that may be working within the machinery space during the day.

¹ The “Company” is the entity responsible for the management of the ship in accordance with the ISM Code. For ships to which the ISM Code is not applicable, the Company is the Managing Owner in accordance with Section 52 of the Merchant Shipping Act.

² Which may be reduced to one (1) in accordance with paragraph 4.4

- 4.7. Attention is drawn to MSC.1/Circ.1490/Rev.1 *Revised Unified Interpretation of SOLAS Regulation III/31.1.4*³ in respect of additional immersion suits to be carried for remotely located survival craft. A minimum of two immersion suits should be provided for remotely located survival craft.

5. Carriage of immersion suits on passenger ships

- 5.1. Regulation 7.3 of Chapter III of SOLAS, requires an immersion suit complying with the requirements of section 2.3 of the LSA Code or an anti-exposure suit complying with section 2.4 of the LSA Code, of an appropriate size, to be provided for every person assigned as the crew of a rescue boat or assigned to the marine evacuation system party of a passenger ship.
- 5.2. All passenger ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of section 2.3 of the LSA Code and, in addition, a TPA complying with the requirements of section 2.5 of the LSA Code for every person to be accommodated in the lifeboat and not provided with an immersion suit.
- 5.3. The immersion suits and TPAs referenced in 5.2 need not be carried:
- i. for persons to be accommodated in totally or partially enclosed lifeboats; or
 - ii. if the ship is constantly engaged on voyages in warm climates where, in the opinion of the BMA, they are unnecessary (see Section 6 below).

6. Carriage of immersion suits in warm climates

- 6.1. Regulation 32.3.2 of Chapter III of SOLAS permits exemptions from the carriage of immersion suits for ships other than bulk carriers, as defined in Regulation 1 of Chapter IX/1 of SOLAS, that operate exclusively within warm climates where, in the opinion of the flag State, immersion suits are unnecessary.
- 6.2. Having considered the guidance provided in *MSC/Circ.1046 Guidelines for the Assessment of Thermal Protection*⁴, the BMA considers “warm climates” to be between latitudes 30°N and 30°S;
- 6.3. The BMA will not exempt any ship operating outside these limits from the immersion suit carriage requirements, irrespective of the duration of the proposed voyage.
- 6.4. Bulk carriers, as defined in SOLAS Regulation IX/1 must carry sufficient immersion suits at all times and cannot be exempted from the carriage requirements, even if operating in warm climates.

³ See Annex 5

⁴ See Annex 1

7. Storage and familiarisation

- 7.1. Immersion suits and anti-exposure suits must be stored in readily accessible and clearly marked locations. The conditions inside storage facilities must ensure that suits are maintained in good condition.
- 7.2. All crew must be familiar with the location(s) of the suits and the methods of donning them. Drill procedures and activities shall incorporate demonstrations and practice to ensure that all crew can safely use an immersion suit or anti-exposure suit immediately when required. Training manuals, muster lists and instructions for on-board maintenance must be updated as necessary.
- 7.3. In general, immersion suits should not be worn when boarding totally enclosed lifeboats. While abandon ship drills are a good opportunity to examine and demonstrate the use of immersion suits, crew training during these drills should emphasise that immersion suits are intended primarily to ensure thermal protection in cases where the totally enclosed lifeboat cannot be embarked on⁵.

8. Inspection and maintenance

- 8.1. The manufacturer's inspection and maintenance recommendations must be followed to ensure that the condition of each immersion suit and anti-exposure suit remains suitable for immediate use. In this respect, attention is drawn to MSC/Circ.1047 *Guidelines for monthly shipboard inspection of immersion suits and anti-exposure suits by ships' crews*⁶ and MSC/Circ.1114 *Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures*⁷.
- 8.2. The BMA recognises that approved immersion suits are being offered in sealed airtight vacuum packaging. These suits cannot be unpacked and inspected as required by MSC/Circ.1047 and MSC/Circ.1114. The BMA accepts this type of packaging and considers that such immersion suits fulfil the requirements of SOLAS Regulations III/7.3, 22.4 and 32.3.
- 8.3. In accepting immersion suits in airtight vacuum packaging as described in 8.2 above, the following requirements must be adhered to:
 - i. A suitable number of standard packaged immersion suits must be available for use for training by the ship's crew. The Company is responsible for assessing and providing a suitable number of immersion suits for training, but there should not be less than one.

⁵ Refer to MSC.1/Circ.1278 *Guidance on wearing immersion suits in totally enclosed lifeboats*

⁶ See Annex 2

⁷ See Annex 3

- ii. The packaging of the vacuum sealed immersion suits must be inspected monthly. Should any damage be found, or the seal broken, or the vacuum lost, the suit must be either removed from the package and inspected as per MSC/Circ.1047 or sent for inspection and repackaging at an approved service station.
 - iii. The airtight packing should be transparent to allow for visual inspection without unpacking the immersion suit. Where the packing is not transparent, it should be carefully inspected to ensure that there has been no leakage.
- 8.4 Notwithstanding paragraph 8.3 above, the air pressure test required by MSC/Circ.1114 should be conducted by a manufacturer approved service station at 3-year intervals, after which the suit should be repackaged in a sealed vacuum package. All immersion suits older than 10 years of age should be serviced annually at an approved service station.
- 8.5 Where a sealed vacuum packaged suit is removed from its packaging for any reason, it should thereafter be treated as an unpackaged suit in respect of the inspections required under SOLAS Chapter III until such time that it is repackaged in a sealed vacuum package by an approved service station.

9. Queries

- 9.1. For any queries on this Notice, please contact tech@bahamasmaritime.com or any BMA office.

Revision History

| Version | Description of Revision |
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| 1.0 | First Issue |
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