

Isle of Man Ship Registry Manx Shipping Notice



SOLAS II-2 Construction – Fire protection, fire detection and fire extinction	Ref. MSN 058 Issued: May 2025
--	----------------------------------

Please be aware this Notice has been updated March 2025 with the following changes:

- Clarification regarding means of escape has been added
- Interpretation regarding two-way radios has been added
- Type approval policy has been updated
- Requirements for fire fighting protective clothing have been updated from TAN 009-16 and republished in TAN 004-24

Introduction

On 1 July 2002, a comprehensive set of requirements for fire protection, fire detection and fire extinction on board ships entered into force as a revised SOLAS Chapter II-2, incorporating technological advances in fire detection and extinction as well as lessons learned from fire incidents over the years.

The requirements are designed to ensure that fires are first of all prevented from occurring; secondly, that any fires are rapidly detected; and thirdly; that any fire is contained and extinguished. Designing ships to ensure easy evacuation routes for crew and passengers are a key element of SOLAS Chapter II-2.

Section 1 Isle of Man Regulations implementing SOLAS II-2

Two sets of new Isle of Man Regulations entered into operation on 21 March 2016. These Regulations revoke and replace existing Regulations which give effect to SOLAS Chapter II-2, and bring the Isle of Man's SOLAS Chapter II-2 requirements up to date.

The two new Regulations are–

(1)The Merchant Shipping (SOLAS Chapter II-2)(Ships constructed from 1 September 1984 to 30 June 2002) Regulations 2016

This regulation has the following purpose:

- (a) to replace existing provision for Manx ships built on or after 1 September 1984 up to and including 30 June 2002; and
- (b) to require ships to comply with SOLAS Chapter II-2 up to and including amendments adopted by Resolution MSC.57(67) on 5 December 1996 which entered into force on 1 July 1998.

(2)The Merchant Shipping (SOLAS Chapter II-2)(Ships constructed on or after 1 July 2002) Regulations 2016

This regulation has the following purpose:

- (a) to replace existing provision for Manx ships built on or after 1 July 2002;



- (b) to require ships to comply with SOLAS Chapter II-2 up to and including amendments adopted by Resolution MSC.365(93) on 22 May 2014, which came into force on 1 January 2016; and
- (c) to contain a requirement for ships built on or after 1 September 1984 up to and including 30 June 2002 to comply with those parts of SOLAS Chapter II-2 Regulations 1.2.2.2, 1.2.2.4 and 1.2.2.5 as applicable in relation to a ship of its description.

A summary of the main provisions of the new Regulations are:

1. Company's responsibility

A Company is required to ensure a ship complies with the Regulations.

In both Regulations, 'Company' refers to the owner of a ship to which the Regulations apply or any other organisation or person such as the manager, or the bareboat charterer, who has assumed responsibility for operation of the ship from the owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the Company by the SOLAS Convention.

2. Requirement to comply with SOLAS Chapter II-2

Manx ships to which the Regulations apply must comply with the requirements of SOLAS Chapter II-2 as appropriate to a ship of its description.

3. Approvals, type approvals, equivalent arrangements, exemptions and waivers

There are various circumstances in the SOLAS II-2 text where approval is required and certain situations where equivalent arrangements, exemptions and waivers may be granted.

a. Approvals

Where SOLAS Chapter II-2, or any part of a code applied by SOLAS Chapter II-2, requires anything to be approved by the Administration, it must be approved by the Ship Registry or a Recognised Organisation (see MSN 20 for list of Recognised Organisations)

b. Type approvals

SOLAS II-2 and the International Code for Fire Safety Systems require certain equipment to be type approved. Further information on type approval is stated in Section 2 and Annex 2.

c. Equivalent arrangements, exemptions and waivers

The Ship Registry may permit equivalent arrangements, exemptions and waivers on a case by case basis, if it is satisfied the arrangements meet the requirements of SOLAS II-2.

An approval, exemption, equivalent arrangement or a waiver is only valid if it is in writing and if any conditions stated in it are complied with.

4. Foreign ships in the territorial waters of the Isle of Man

A foreign ship in the territorial waters of the Isle of Man must comply with the requirements of SOLAS Chapter II-2 in relation to a ship of its description. When in a port of the Island a foreign ship may be subject to inspection.

If an inspector carries out an inspection on a foreign ship in a port of the Isle of Man, and certificates required by regulation 12 or 13 of SOLAS Chapter I are not produced, have expired or ceased to be valid, the ship may be detained.

A ship may also be detained if the inspector has clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of the



certificate; or the ship and its equipment are not in compliance with the provisions of SOLAS Chapter I regulation 11(a) and (b).

Section 2 Interpretation of SOLAS Chapter II-2 requirements

SOLAS Chapter II-2 requires the ship's Flag Administration to determine how a ship must implement certain requirements. For example, SOLAS Chapter II-2 refers to standards being met "to the satisfaction of the Administration" or gives the Administration the ability to permit a method of construction, a particular material or determine a set of guidelines.

Within SOLAS Chapter II-2 there are over 100 of these circumstances and where necessary they have been set out in the Annexes to this MSN. As a general rule these will either be decided on a case by case basis, delegated to a Recognised Organisation or the Ship Registry has specified its own interpretation. For passenger ships there are many additional areas and these have been set out in Annex 3.

The Annexes* are briefly described as follows -

Annex 1 General interpretations and permissions

Where SOLAS II-2 requires a decision to be made by the Ship Registry, and an interpretation has been made or permission has been given, this is stated in Annex 1.

Annex 2 Type approvals

SOLAS II-2 and the International Code for Fire Safety Systems require certain equipment to be type approved. The list of equipment and the relevant type approval standards are stated in Annex 2.

All equipment requiring type approval must be accompanied by a type approval certificate issued by:

- a Recognised Organisation listed in MSN 20; or
- the Isle of Man Ship Registry; or
- a Recognised Organisation* on behalf of a national Administration; or

*-under normal circumstances this shall be a Recognised Organisation listed in MSN 020, however alternative Recognised Organisation may be accepted on a case-by-case basis.

In addition to the above, equipment certified under the Marine Equipment Directive (MED) by an RO or a notified body **or** the UK conformity assessment procedures by a RO or a Conformity Assessment centre is acceptable for use on Isle of Man registered vessels. However, it is **not mandatory** for equipment to be certified under either of these schemes.

If the equipment has been issued with a type approval certificate by another organisation it may only be used or fitted with the consent of the Ship Registry.

Except where it is a Convention requirement, individual test certificates are not required in addition to the type approval certificate.

Annex 3 Passenger ships

It is the Ship Registry's policy to work closely with the ship's Recognised Organisation during the plan approval and construction stage when a passenger ship is being constructed to the Isle of Man's requirements. This is because passenger ships are not necessarily built to a standard design, and SOLAS has additional specific areas for passenger ships which the Ship Registry must make a decision on. These additional areas are stated in Annex 3.

* References to SOLAS II-2 page numbers in the Annexes are from SOLAS consolidated edition 2014 and SOLAS consolidated edition 2001. The SOLAS Regulations have only been summarised and the SOLAS text should be referred to for the full regulation.



Section 3 Periodic inspection, testing and maintenance of fire protection systems

Over the last few years a number of new guidelines have been published by the International Maritime Organisation relating to the periodic inspection, testing and maintenance of fire protection systems. These guidelines have been adopted by the Ship Registry and are included in MSN 057.

Section 4 Means of Escape

1. Locking of Doors on Escape Routes

The IOMSR recognises the conflict existing between security requirements of the ISPS Code requiring doors to be secured against unauthorised access (including doors on escape routes) and the safety requirements of SOLAS II-2 requiring means of escape to not be impeded.

Although the requirements of SOLAS II-2 Regulation 13 for cargo ships do not explicitly require every door leading to the open deck to be capable of being opened from both sides, MSC.Circ/847 outlines the philosophy that means of escape must be accessible from both sides, "The escape routes are routes for escape and also for access. Accordingly, the locking arrangement should be such that it does not obstruct these two objectives (escape and access) and that the doors in the way of escape routes can be opened from both sides."

In addition, SOLAS II-2 Reg. 2.2.1.6 outlines the functional requirements of escape routes, one of which is "protection of means of escape **and** access for firefighting". Therefore, the Isle of Man Ship Registry's interpretation of SOLAS is that it is requirement for all doors, on all escape routes to be capable of being accessed in both directions in an emergency situation.

Nonetheless, it is also recognised that security requires that access to "restricted areas" is controlled. Both the safety and security requirements have to be met and various methods of achieving this have been employed. Some examples are outlined below. It must be stressed that this MSN does not introduce any additional requirements but only clarifies SOLAS.

1.1 Examples of unacceptable methods

- 'Dead bolt latches' on the inside
- Planks of wood across the door handles internally
- Internally lashed doors with emergency knife
- Door locks with no external keyhole

1.2 Acceptable methods

- Key-pad door locks,
- A padlock key control system and an internal quick release device;
- Door locks with internal release device and an external lock with key control system.
- Dogs with a removable handle that require a special shaped head for opening them externally. The handle should be readily available for emergency use.

The acceptable methods described above also require appropriate operational procedures to be in place to ensure that the means of access is readily accessible in an emergency. Examples of this are: procedures for access to and use of keys and codes; or searches of restricted areas to verify their integrity after a suspected breach.

2. Emergency Escape Access Arrangements

Regulation 13.4.1.1 of SOLAS II-2 requires 'two sets of steel ladders, as widely separated as possible, leading to doors in the upper part of the space, similarly separated and from which access is provided to the open deck. One of these ladders shall be located within a protected enclosure that satisfies regulation 9.2.3.3, category (4), from the lower part of the space it serves to a safe position outside the space'



This requirement was further clarified by IACS SC277 (applicable to ships constructed on or after 1 February 2016) which states 'the lower part of the space shall be regarded as the lowest deck level, platform or passageway within the space' and MSC/Circ.1511 which states 'Machinery spaces may include working platforms and passageways, or intermediate decks at more than one deck level. In such case, the lower part of the space should be regarded as the lowest deck level, platform or passageway within the space.'

It should be noted that there is no firm date advised for the unified interpretation given within MSC/Circ.1511, however, the IOMSR considers the document to have an effective date of 1 July 2016.

The IOMSR is aware that arrangements on some vessels may not comply fully with the interpretation of SOLAS II-2 provided by IACS SC 277/MSC.Circ.1511 as there may be unprotected steps and/or an unprotected ladder leading up a short distance from the bottom plates before the protected enclosure is reached.

The IOMSR wishes to clarify that for vessels with such arrangements constructed prior to 1 July 2016 that we consider the vessel to be in compliance with the original SOLAS II-2 requirements and there is no requirement to modify the vessel to comply with the interpretation provided by IMO.

It should be noted however that Ship Registry is aware that some PSC officers have asked vessels to demonstrate an effective evacuation of an injured crew member from the lowest level of the engine room to the escape trunk as part of a SOLAS rescue drill. We therefore strongly recommend that crew on such vessels are well practiced and able to carry out a successful demonstration of this drill.

Section 5 Safe Type Requirements for Two-way Portable Radios

SOLAS II-2 Regulation 10.10.4 requires 'a minimum of two two-way portable radiotelephone apparatus for each fire party for fire-fighter's communication shall be carried on board. Those two-way portable radiotelephone apparatus shall be of an explosion-proof type or intrinsically safe.'

The IOM has adopted IACS SC 291 which further clarifies this requirement, requiring that the two-way portable radio apparatus used for fire-fighter's communication, should be of a certified safe type suitable for use in zone 1 hazardous areas as defined by IEC Publication 60079. Further, the minimum requirements with respect to the apparatus group and temperature class are to be consistent with the most restrictive requirements for the hazardous area zone on board which is accessible to the fire party.

SC 291 is applicable to new ships contracted for construction on or after 1 July 2020. In the case of existing ships constructed prior to this date, compliance is required when new, additional or replaced equipment is installed on/after 1 July 2020.



Reference material

Documents referred to in this MSN:

- The Merchant Shipping (SOLAS Chapter II-2 (ships constructed on or after 1 July 2002) Regulations 2016;
- The Merchant Shipping (SOLAS Chapter II-2)(Ships constructed from 1 September 1984 to 30 June 2002) Regulations 2016;
- MSN 020 Recognised Organisations;
- MSN 057; The maintenance and inspection of fire protection systems and appliances;
- The Merchant Shipping (SOLAS Chapter II-2) Regulations 2016;
- International Code for Fire Safety Systems (FSS Code);
- Resolution MSC.57(67) Adoption of Amendments to the International Convention for the Safety of Life at Sea, 1974; and
- Resolution MSC.365(93) Amendments to the International Convention for the Safety of Life at Sea, 1974, as amended.

Most Regulations and notices are available on the Isle of Man Government website: www.iomshipregistry.com or by contacting marine.survey@gov.im

Please note - The Isle of Man Ship Registry cannot give legal advice. Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from ship to ship. You should consider seeking independent legal advice if you are unsure of your own legal position.



Annex 1 General interpretations and permissions

Summary of the regulation SOLAS Consolidated Edition 2014 Ships constructed ≥01/07/2002	Summary of the regulation SOLAS Consolidated Edition 2001 Ships constructed <01/07/2002	IOM Ship Registry's requirements
<u>Reg 1.6.5 Page 124</u> Combination carriers shall not carry cargoes other than oil unless all cargo spaces are empty of oil and gas-freed or unless the arrangements provided in each case have been approved by the Administration.....	<u>Reg 55.3 Page 264</u> Same as the 2014 Edition.	The Ship Registry must be requested on a case-by-case basis to approve the arrangements in accordance with the guidelines for inert gas systems (MSC/Circ.353, as amended by MSC/Circ.387).
<u>Reg 1.6.6 Page 124</u> Chemical tankers and gas carriers shall comply with the requirements for tankers, except where alternative and supplementary arrangements are provided to the satisfaction of the Administration, having due regard to the provisions of the International Bulk Chemical Code and the International Gas Carrier Code, as appropriate.	<u>Reg 55.6 Page 265</u> Same as the 2014 Edition.	Any proposals for the alternative and supplementary arrangements must be sent to the Ship Registry for approval.
<u>Reg 4.2.1.4 Page 131</u> In cargo ships the use of fuel having a lower flashpoint than otherwise specified, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the Administration of the complete installation.	<u>Reg 15.1.4 Page 187</u> Same as the 2014 Edition.	It is permitted for cargo ships to use fuel having a lower flashpoint than specified provide the fuel is not stored in any machinery space.
<u>Reg 4.2.2.3.5.1 Page 131</u> Termination of sounding pipes in the machinery space may be permitted on the condition that the requirements stated in Reg 4.2.2.3.5.1 have been met.	<u>Reg 15.2.6.1 Page 189</u> Same as the 2014 Edition.	It is permitted for sounding pipes to terminate in machinery spaces.
<u>Reg 4.2.2.3.5.2.2 Page 132</u> The Administration may permit the use of oil-level gauges with flat glasses and self-closing valves between the gauges and fuel tanks.	<u>Reg 15.2.6.2.2 Page 189</u> Same as the 2014 Edition.	The use of oil-level gauges with flat glasses and self-closing valves between the gauges and fuel tanks are permitted.
<u>Reg 4.2.2.5.1 Page 132</u> Oil fuel piping – restricted use of flexible pipes.	<u>Reg 15.2.8 Page 190</u> Same as the 2014 Edition.	If flexible oil fuel pipes are to be considered permission must be requested by the Ship Registry which will only be granted if it is considered to be strictly necessary and the following criteria have been met: Flexible pipes and end attachments must be of approved fire-resisting materials in accordance with ISO



		<p>15540:1999, Fire resistance of hose assemblies - test methods and ISO 15541:1999, Fire resistance of hose assemblies - requirements for the test bench.</p> <p>Flexible hoses:</p> <p>a) must not be used in high pressure fuel injection systems;</p> <p>b) must be installed and replaced in accordance with the manufacturer's instructions;</p> <p>c) must allow sufficient free movement to be provided to accommodate vibration and avoid contact with any structure; and</p> <p>d) are not permitted to have hose clamps and similar types of attachments.</p>
<p><u>Reg 4.2.2.5.6 Page 133</u> Oil fuel piping – through accommodation and service spaces.</p>	<p><u>Reg 18.2.2 Page 197</u> Same as the 2014 Edition.</p>	<p>If it is intended to convey oil and combustible liquids through accommodation and service spaces permission must be requested from the Ship Registry. Permission will only be granted if the pipes are of steel or equivalent material.</p>
<p><u>Reg 4.5.1.1 Page 134</u> Cargo areas of tankers. Separation of cargo oil tanks – lower portion of the pump-room may be recessed into machinery spaces of category A to accommodate pumps in accordance with the requirements stated in Reg 4.5.1.1.</p>	<p><u>Reg 56.1 Page 266</u> Same as the 2014 Edition.</p>	<p>A recess in excess of the height stipulated in SOLAS II-2 is permitted, but must not exceed one half of the moulded depth above the keel.</p>
<p><u>Reg 5.1.3 Page 135</u> The Administration may permit main cargo control stations, control stations, accommodation and service spaces forward of the cargo tanks, slop tanks and spaces which isolate cargo and slop tanks from machinery spaces, but not necessarily forward of oil fuel bunker tanks or ballast tanks.</p>	<p><u>Reg 56.3 Page 266</u> Same as the 2014 Edition.</p>	<p>It is permitted for main cargo control stations, control stations, accommodation and service spaces to be forward of the cargo tanks, slop tanks and spaces which isolate cargo and slop tanks from machinery spaces, but not necessarily forward of oil fuel bunker tanks or ballast tanks.</p>
<p><u>Reg 5.1.3 Page 135</u> Where deemed necessary for the safety or navigation of the ship, the Administration may permit machinery spaces containing internal combustion machinery not being main propulsion machinery having an output greater than 375 kW to be located forward of the cargo area provided the</p>	<p><u>Reg 56.3 Page 267</u> Same as the 2014 Edition.</p>	<p>Where deemed necessary for the safety or navigation of the ship, it is permitted for machinery spaces containing internal combustion machinery not being main propulsion machinery having an output greater than 375 kW to be located forward of the cargo area provided the arrangements are in</p>



arrangements are in accordance with the provisions of this paragraph.		accordance with the provisions of SOLAS II-2.
<u>Reg 5.1.4.4 Page 135</u> The Administration may permit cargo oil lines to be placed in special ducts provided these are capable of being adequately cleaned and ventilated to the satisfaction of the Administration.	<u>Reg 56.4.4 Page 267</u> Same as the 2014 Edition.	It is permitted for cargo oil lines to be placed in special ducts under the circumstances stated in SOLAS II-2.
<u>Reg 5.2.2 Page 136</u> Access doors in boundary bulkheads facing the cargo area or within the 5m limits specified in paragraph 5.2.1.	<u>Reg 56.8.2 Page 268</u> Access doors in boundary bulkheads facing the cargo area or within the 5m limits specified in paragraph 8.1	Access doors are permitted in boundary bulkheads facing the cargo area or within the 5m limits specified in SOLAS II-2.
<u>Reg 5.5.2.1 Page 138</u> The requirements for inert gas systems contained in the FSS Code need not be applied to: .1 chemical tankers and gas carriers when carrying cargoes described in regulation 1.6.1, provided that they comply with the requirements for inert gas systems on chemical tankers established by the Administration, based on the guidelines developed by the Organization; or.....	N/A	The Ship Registry adopts Resolution A.567(14) Regulation for inert gas systems on chemical tankers.
<u>Reg 8.2 Page 148</u> Protection of control stations outside machinery spaces. At the discretion of the Administration, the requirements of Reg 8.2 need not apply to control stations situated on, and opening onto, an open deck or where local closing arrangements would be equally effective.	<u>Reg 16.6 Page 193</u> Same as the 2014 Edition.	The Ship Registry does not require the requirements of Reg 8.2 (or 16.6 in 2001 Consolidated version of SOLAS) to apply to control stations under the circumstances stated in SOLAS II-2.
<u>Reg 8.3.1 Page 149</u> Release of smoke from machinery spaces. The provisions of Reg 8.3.1 shall apply to machinery spaces of category A and, where the Administration considers it desirable, to other machinery spaces.	N/A	In this circumstance the Ship Registry defines 'desirable' as meaning any machinery space which is critical to the safe operation of the ship.
<u>Reg 9.5.1.1 Page 172</u> Protection of openings in machinery space boundaries. The provision of this paragraph shall apply to machinery spaces of category A and, where the	<u>Reg 11.1 Page 176</u> Special arrangements in machinery spaces The provisions of this regulation shall apply to machinery spaces of category A and, where the	In this circumstance the Ship Registry defines 'desirable' as meaning all machinery space boundaries.



Administration considers it desirable, to other machinery spaces.	Administration considers it desirable, to other machinery spaces.	
<u>Reg 10.2.2.3.2.2 Page 179</u> Access to the emergency fire pump. No direct access shall be permitted between the machinery space and the space containing the emergency fire pump and its source of power. When this is impracticable, the Administration may accept an arrangement where the access is by means of an airlock.....	<u>Reg 4.2.7 Page 159</u> Same as in the 2014 Edition.	When this is impracticable the Ship Registry will accept, on a case-by-case basis, an airlock following the requirements stated in SOLAS II-2.
<u>Reg 10.4.1.4 Page 182</u> The use of steam as a fire-extinguishing medium in fixed fire-extinguishing systems.	<u>Reg 5.4 Page 170</u> Same as in the 2014 Edition.	Permission must be sought from the Ship Registry in order to permit the use of steam as a fire-extinguishing medium.
<u>Reg 10.3.3 Page 182</u> The requirements for spare charges for fire extinguishers are stipulated in Reg 10.3.3.	<u>Reg 6.2 Page 171</u> Spare charges shall be provided in accordance with requirements to be specified by the Administration.	The requirements for spare charges for ships constructed before 01/07/2002 are stated in MSN 057.
N/A	<u>Reg 6.5 Page 172</u> Fire extinguishers shall be periodically examined and subjected to such tests as the Administration may require.	The requirements for periodical examination and testing of portable fire extinguishers are stated in MSN 057 – Note this is applicable to all ships regardless of date of construction.
N/A	<u>Reg 6.7 Page 172</u> Accommodation spaces, service spaces and control stations shall be provided with portable fire extinguishers of appropriate types and in sufficient number to the satisfaction of the Administration.	The Ship Registry adopts UI MSC.1/Circ.1275 on the number and arrangement of portable fire extinguishers on board ships. For ships constructed before 01 January 2009 the Ship Registry encourages the use of this unified interpretation.
<u>Reg 10.5.2.2.2 Page 183</u> Spaces containing internal combustion machinery. For smaller spaces of cargo ships the Administration may consider relaxing the requirements stated in Reg 10.5.2.2.2.	<u>Reg 7.2.3 Page 173</u> Spaces containing internal combustion machinery. For smaller spaces of cargo ships the Administration may consider relaxing the requirements stated in Reg 7.2.3.	The Ship Registry will consider relaxing this on a case-by-case basis.
<u>Reg 10.7.1.2 Page 186</u> Fixed gas fire-extinguishing systems for general cargo. Where it is shown to the satisfaction of the Administration that a passenger ship is engaged on voyages of such short duration that it would be unreasonable to apply the requirements of paragraph	<u>Reg 39.2 Page 235</u> Fixed fire-extinguishing arrangements in cargo spaces. Where it is shown to the satisfaction of the Administration that a ship is engaged on voyages of such short duration that it would be unreasonable to apply the	The Ship Registry will determine this on a case by case basis.



7.1.1 and also in ships of less than 1,000 GT, the arrangements in cargo spaces shall be to the satisfaction of the Administration, provided that the ship.....	requirements of paragraph 1 and also in ships of less than 1,000 GT, the arrangements in cargo spaces shall be to the satisfaction of the Administration.	
<u>Reg 10.7.1.4 Page 186</u> The Administration may exempt from the requirements of paragraphs 7.1.3 and 7.2 cargo spaces of any cargo ship if constructed, and solely intended, for the carriage of ore, coal, grain, unseasoned timber, non-combustible cargoes or cargoes which, in the opinion of the Administration, constitute a low fire risk. Such exemptions may be granted only if the ship is fitted with steel hatch covers and effective means of closing all ventilators and other openings leading to the cargo spaces.	<u>Reg 53.1.3 Page 253</u> Same as the 2014 Edition.	The Ship Registry must be contacted to request an exemption.
<u>Reg 10.10.2.4 Page 188</u> Number of fire-fighter's outfits.	<u>Reg 17.3.3 Page 196</u> Number of fire-fighter's outfits.	The Ship Registry may require additional fire-fighters outfits in cases where ships are constructed in such a manner or are of such complexity that additional fire fighter's outfits are required for safety reasons.
<u>Reg 13.3.1.4 Page 193</u> If a radiotelegraph station has no direct access to the open deck, two means of escape from, or access to, the station shall be provided, one of which may be a porthole or window of sufficient size or other means to the satisfaction of the Administration.	<u>Reg 28.1.3 Page 214</u> Same as in the 2014 Edition.	The Ship Registry will determine this on a case by case basis.
<u>Reg 13.3.4.2 Page 195</u> All ships shall carry at least two emergency escape breathing devices within accommodation space.		EEBDs for use in the accommodation space must be stored in the same compartment as the fireman's outfits, ready for use so that they may be carried by the fire party to be given to persons trapped within a hazardous atmosphere.
<u>Reg 13.4.2.2 Page 197</u> Dispensation from two means of escape in cargo ships of less than 1,000GT.	<u>Reg 45.4 Page 249</u> Dispensation from two means of escape in cargo ships of less than 1,000GT.	One of the means of escape may be dispensed with under the circumstances stated in SOLAS II-2.



<u>Reg 13.4.3.1 Page 197</u> On all ships, within the machinery spaces, emergency escape breathing devices shall be situated ready for use at easily visible places, which can be reached quickly and easily at any time in the event of fire. The location of emergency escape breathing devices shall take into account the layout of the machinery space and the number of persons normally working in the spaces.		SOLAS does not specify a minimum number of EEBDs for machinery spaces; however the Ship Registry recommends that the minimum number of EEBDs in each separate machinery space be a minimum of two. It is also recommended that at least one EEBD is located on each level of a machinery space. The guidelines within MSC.1/Circ.849 are to be considered mandatory.
<u>Reg 17 Page 205</u> Alternative design and arrangements.	<u>Reg 22 Page 199</u> Acceptance of substitutes.	The Ship Registry will consider this on a case by case basis.
<u>Reg 18.3.2 Page 207</u> Helicopter facilities The use of aluminium or other low melting point metal construction that is not made equivalent to steel.	Prior to 2002 the requirements for helicopter facilities are stated in Resolution A.855(20).	The Ship Registry only permits the use of aluminium or other low melting point metal construction under the circumstances stated in Reg.18.3.2.
<u>Reg 19.2.1 Page 210</u> Carriage of dangerous goods, general requirements. Cargo ships of less than 500 GT shall comply with this regulation, but Administrations may reduce the requirements and such reduced requirements shall be recorded in the Document of Compliance referred to in paragraph 4.	<u>Reg 54.1.1 Page 256</u> Same as the 2014 Edition	The Ship Registry will consider this on a case by case basis. The reduced requirements will be stated in the Document of Compliance.
<u>Reg 19.3.1.3 Page 211</u> Carriage of dangerous goods - Special requirements - water supplies – Use of hoses in small cargo spaces and in small areas of larger cargo spaces at the discretion of the Administration.	<u>Reg 54.2.1.3 Page 257</u> Same as the 2014 Edition.	The Ship Registry will consider this on a case by case basis.
<u>Reg 19.3.9 Page 213</u> Ships carrying dangerous goods Carriage of dangerous goods, special requirements – water-spray systems. The Administration may permit the use of any other fixed fire-extinguishing system that has been shown by full-scale test to be no less effective.	<u>Reg 54.2.9 Page 262</u> Same as the 2014 Edition.	The Ship Registry will consider this on a case by case basis.
<u>Reg 20.3.1.1 Page 218</u> Capacity of ventilation systems The Administration may require an increased number of air changes	<u>Reg 37.1.6.1 Page 230</u> Same as the 2014 Edition.	When vehicles are being loaded and unloaded the number of air changes must be calculated based on the tables stated in MSC/Circ.729 Part 1 Design



when vehicles are being loaded and unloaded.		guidelines for ventilation systems in Ro-Ro cargo spaces.
<u>Reg 20.6.1.3 Page 220</u> Fixed fire detection and fire alarm systems. The Administration may permit the use of any other fixed fire-extinguishing system that has been shown, by a full-scale test in conditions simulating a flowing petrol fire in a vehicle space or a ro-ro space, to be not less effective in controlling fires likely to occur in such a space.	<u>Reg 37.1.3 page 229</u> Same as the 2014 Edition.	This will be considered by the Ship Registry on a case by case basis.



Annex 2 Type Approval

SOLAS consolidated edition 2014 regulation	Item requiring type approval	Type approval standard
Reg 1.6.2.1.2 page 123 FSS Code Chapter 14	Low-expansion foam concentrates for fixed fire-extinguishing systems.	MSC.1/Circ.1312; and MSC.1/Circ.1312/Corr.1
FSS Code Chapter 14	Medium-expansion foam concentrates for fire-extinguishing systems.	MSC/Circ.798
FSS Code Chapter 6	High-expansion foam systems.	MSC.1/Circ.1384
Reg 4.5.3.3 Page 137 tankers	Safety devices in venting systems.	The requirements are as stated in- a) MSC/Circ.1009. which are applicable for devices installed on or after 01 July 2002; and b) MSC/Circ.677 Revised standards for design, testing and locating of devices to prevent the passage of flame into cargo tanks for devices installed prior to 01 July 2002.
Reg 6.3.1 Page 144	Primary deck covering applied within accommodation and service spaces and control stations.	Type approval must be carried out to ensure the material will meet the requirements stated in the 2010 Fire Test Procedures Code (Resolution MSC.307(88)); and MSC.1/Circ.1435 UI of the FTP Code.
Reg 10.2.3.1.1 All ships Page 180	Fire hoses and nozzles - general specifications.	Must be constructed to one of the following standards. BS EN 671-1:2012 Fixed firefighting systems. Hose systems. Hose reels with semi-rigid hose; or BS EN 14540:2004 Fire-fighting hoses. Non-percolating layflat hoses for fixed systems.
Reg 10.3.1 Page 181 FSS Code 4	Portable fire extinguishers.	FSS Code Chapter 4, & Resolution A.951(23).
Reg 10.5.6.2 Page 184 passenger ships of 500GT and above & cargo ships of 2000GT and above	Machinery spaces of category A above 500 m ³ in volume shall, in addition to the fixed fire-extinguishing system required in paragraph 5.1.1, be protected by an approved type of fixed water-based or equivalent local application fire-extinguishing system, based on the guidelines developed by the Organization.	Fixed water-based local application fire-fighting systems must be approved to: MSC.1/Circ.1387; MSC/Circ.1082; and MSC.1/Circ.1276.
Reg 13.3.2.5.1 Passenger ships Page 194	Marking of escape routes The Administration shall ensure that such lighting or photoluminescent equipment has been evaluated, tested and	Low-location lighting systems shall be type approved in accordance with: The FSS Code Chapter 11; and Resolution A.752(18) Guidelines for evaluation, testing and application of low-location lighting on passenger ships.



	applied in accordance with the Fire Safety Systems Code.	
Reg 3.2 Reg 3.4 Reg 9.4.1.1.2 Reg 9.4.1.2.1	A Class divisions fire integrity; B Class divisions fire integrity; fire doors in A Class division; and fire doors in B Class division.	Type approval must be carried out to ensure the material will meet the requirements stated in the 2010 Fire Test Procedures Code (Resolution MSC.307(88)); and MSC.1/Circ.1435 UI of the FTP Code.
Reg 10.1.1 Page 188 FSS Code Chapter 3	Fire-fighters outfits: Self-contained compressed air breathing apparatus	Refer to TAN 004-24 for firefighters outfits SCBA as below: BS EN 136:1998; or BS EN 137:2006; or BS ISO 23269-2:2011



Annex 3 Passenger ships

Summary of the regulation SOLAS Consolidated Edition 2014 Ships constructed ≥01/07/2002	Summary of the regulation SOLAS Consolidated Edition 2001 Ships constructed <01/07/2002	Isle of Man Ship Registry's requirements
<u>Reg 5.2.2.5 Page 141</u> Means of control in machinery spaces The controls required in paragraphs 2.2.1 to 2.2.4 and in regulations 8.3.3 and 9.5.2.3 and the controls for any required fire-extinguishing system shall be situated at one control position or grouped in as few positions as possible to the satisfaction of the Administration.	N/A	The Ship Registry will determine if this is acceptable on a case by case basis.
<u>Reg 5.3.3 Page 143</u> Furniture in stairway enclosures of passenger ships The Administration may permit additional seating in the main reception area within a stairway enclosure if it is fixed, non-combustible and does not restrict the passenger escape route.	<u>Reg 41-2.4.10 Page 240</u> Same as the 2014 Edition.	Additional seating in the main reception areas is permitted under the circumstances stated.
<u>Reg 7.6 Page 147</u> Protection of cargo spaces in passenger ships A fixed fire detection and fire alarm system or a sample extraction smoke detection system shall be provided in any cargo space which, in the opinion of the Administration, is not accessible, except where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply this requirement.	<u>Reg 40.2 Page 236</u> A fixed fire detection and fire alarm system complying with the requirements of regulation 13 or a sample extraction smoke detection system complying with the requirements of regulation 13-1 shall be provided in any cargo space which, in the opinion of the Administration, is not accessible, except where it is shown to the satisfaction of the Administration that the ship is engaged on voyages of such short duration that it would be unreasonable to apply this requirement.	The Ship Registry will determine this on a case by case basis.
<u>Reg 7.8.2 Page 148</u> Inspection hatches The construction of ceilings and bulkheads shall be such that it will be possible, without impairing the efficiency of the fire protection, for the fire patrols to detect any smoke originating in concealed and inaccessible places, except where in the opinion of the Administration there is no risk of fire originating in such places.	N/A	The Ship Registry will determine this on a case by case basis.



<p>Reg 8.3.4 Page 149</p> <p>Release of smoke from machinery spaces</p> <p>The controls required by paragraph 3.3 shall be situated at one control position or grouped in as few positions as possible to the satisfaction of the Administration.</p>	N/A	The Ship Registry will determine this on a case by case basis.
<p>Reg 9.2.2.3.1 Page 151</p> <p>Fire integrity of bulkheads and decks in ships carrying more than 36 passengers</p> <p>In addition to complying with the specific provisions for fire integrity of bulkheads and decks of passenger ships, the minimum fire integrity of all bulkheads and decks shall be as prescribed in tables 9.1 and 9.2. Where, due to any particular structural arrangements in the ship, difficulty is experienced in determining from the tables the minimum fire integrity value of any divisions, such values shall be determined to the satisfaction of the Administration.</p>	<p>Reg 26.1 Page 203</p> <p>Same as the 2014 Edition.</p>	The Ship Registry will determine this on a case by case basis.
<p>Reg 9.2.2.3.2.5 Page 155</p> <p>Fire integrity of bulkheads and decks in ships carrying more than 36 passengers</p> <p>The Administration shall determine in respect of category (5) spaces whether the insulation values in table 9.1 shall apply to ends of deckhouses and superstructures, and whether the insulation values in table 9.2 shall apply to weather decks. In no case shall the requirements of category (5) of tables 9.1 or 9.2 necessitate enclosure of spaces which in the opinion of the Administration need not be enclosed.</p>	<p>Reg 26.2.5 Page 207</p> <p>Same as the 2014 Edition.</p>	The Ship Registry will determine this on a case by case basis.
<p>Reg 9.5.2.4 Page 172</p> <p>Protection of openings in machinery space boundaries</p> <p>In passenger ships, the means of control required in paragraph 5.2.3 (closing power operated doors) shall be situated at one control position or grouped in as few positions as possible, to the satisfaction of the Administration. Such positions shall have safe access from the open deck.</p>	N/A	The Ship Registry will determine this on a case by case basis.



<p><u>Reg 13.3.2.1 Page 193</u> Means of escape in passenger ships Below the bulkhead deck, two means of escape, at least one of which shall be independent of watertight doors, shall be provided from each watertight compartment or similarly restricted space or group of spaces. Exceptionally, the Administration may dispense with one of the means of escape for crew spaces that are entered only occasionally, if the required escape route is independent of watertight doors.</p>	<p><u>Reg 28.1.1 Page 214</u> Same as the 2014 Edition.</p>	<p>If requested the Ship Registry will dispense with this requirement under the circumstances stated.</p>
<p><u>Reg 13.3.2.6.2 Page 195</u> Normally locked doors that form part of an escape route Escape doors from public spaces that are normally latched shall be fitted with a means of quick release. Such means shall consist of a door-latching mechanism incorporating a device that releases the latch upon the application of a force in the direction of escape flow. Quick release mechanisms shall be designed and installed to the satisfaction of the Administration and, in particular.....</p>	<p>N/A</p>	<p>The Ship Registry will determine this on a case by case basis taking into account the requirements stated in Reg 13.3.2.6.2.</p>
<p><u>Reg 13.4.1.3 Page 196</u> Means of escape from machinery spaces - dispensation from two means of escape In a ship of less than 1,000 GT, the Administration may dispense with one of the means of escape, due regard being paid to the width and disposition of the upper part of the space. In a ship of 1,000 GT and above, the Administration may dispense with one means of escape from any such space.....</p>	<p><u>Reg 28.3.2 Page 217</u> Same as the 2014 Edition.</p>	<p>The Ship Registry will determine this on a case by case basis and one of the means of escape may be dispensed with under the circumstances stated.</p>
<p><u>Reg 13.5.1 Page 197</u> Means of escape on passenger ships from special category and open ro-ro spaces to which any passengers carried can have access In special category and open ro-ro spaces to which any passengers carried can have access, the</p>	<p>N/A</p>	<p>The Ship Registry will determine this on a case by case basis.</p>



number and locations of the means of escape both below and above the bulkhead deck shall be to the satisfaction of the Administration.....		
<u>Reg 20.6.1.4.1.3 Page 221</u> Fixed fire-extinguishing systems In the spaces below the bulkhead deck, the Administration may require pumping and drainage facilities to be provided additional to the requirements of regulation II-1/35-1.....	N/A	This is required unless it can be proved otherwise through stability modelling.
<u>Reg 21.4 Page 222</u> Safe return to port When fire damage does not exceed the casualty threshold indicated in paragraph 3, the ship shall be capable of returning to port while providing a safe area as defined in regulation 3.51. To be deemed capable of returning to port, the following systems shall remain operational in the remaining part of the ship not affected by fire: .14 other systems determined by the Administration to be vital to damage control efforts. Safe area(s) shall generally be internal space(s); however, the use of an external space as a safe area may be allowed by the Administration taking into account any restriction due to the area of operation and relevant expected environmental conditions; Alternate space for medical care shall conform to a standard acceptable to the Administration. Refer to Interim Explanatory Cabling and piping within a trunk constructed to an "A-60" standard shall be deemed to remain intact and serviceable while passing through the unserviceable main vertical zone for the purposes of paragraph 3.1. An equivalent degree of protection for cabling and piping may be approved by the Administration.	N/A	This will be determined by the Ship Registry on a case-by-case basis at the plan approval stage following recommendations made by the ship's RO. The Ship Registry applies MSC.1/Circ.1369/Add.1.

