



Australian Government
Australian Maritime Safety Authority

AMSA MO 2014/7

Marine Order 15 (Construction — fire protection, fire detection and fire extinction) 2014

I, Graham Peachey, Chief Executive Officer of the Australian Maritime Safety Authority, make this Order under subsection 342(1) of the *Navigation Act 2012*.

21 May 2014

Graham Peachey
Chief Executive Officer

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Division 1 Preliminary

1 Name of Order

This Order is *Marine Order 15 (Construction — fire protection, fire detection and fire extinction) 2014*.

2 Commencement

This Order commences on 1 July 2014.

3 Repeal of *Marine Order 15 (Construction — fire protection, fire detection and fire extinction) 2009*

Marine Order 15 (Construction — fire protection, fire detection and fire extinction) 2009 is repealed.

4 Purpose

This Order:

- (a) gives effect to Chapter II-2 of SOLAS; and
- (b) prescribes standards for fire protection, fire detection and fire extinction for vessels.

5 Power

- (1) Subsection 339(1) of the Navigation Act provides that regulations may be made prescribing matters required or permitted to be prescribed or that are necessary or convenient to be prescribed for carrying out or giving effect to the Act.
- (2) Paragraph 339(2)(h) of the Navigation Act provides that the regulations may provide for the prevention, detection and extinction of fire on vessels.
- (3) Paragraph 340(1)(a) of the Navigation Act provides that regulations may be made to give effect to SOLAS.
- (4) Subsection 342(1) of the Navigation Act provides that AMSA may make a Marine Order about anything that may or must be made by the regulations.

6 Definitions

In this Order:

Chapter II-2 means Chapter II-2 of SOLAS.

FSS Code means the *International Code for Fire Safety Systems* adopted by IMO Resolution MSC.98(73), as in force from time to time.

FTP Code means the *International Code for Application of Fire Test Procedures* adopted by IMO Resolution MSC.307(88), as in force from time to time.

IACS Recommendation No.99 means the *International Association of Classification Societies Recommendation No. 99 (2007) Recommendations for the Safety of Cargo Vessels of less than Convention Size*, as amended from time to time.

Note 1 Information about obtaining copies of IMO resolutions and other documents mentioned in this Order is available from AMSA's website at <http://www.amsa.gov.au>.

Section 7

Note 2 Some terms used in this Order are defined in *Marine Order 1 (Administration) 2013*, including:

- cargo vessel
- equivalent
- IMO
- Navigation Act
- NSCV
- SOLAS
- use
- USL Code.

Note 3 Other terms used in this Order are defined in the Navigation Act, including:

- AMSA
- foreign vessel
- recognised organisation.

Note 4 For delegation of AMSA's powers under this Order — see the AMSA website at <http://www.amsa.gov.au>.

7 Interpretation

- (1) For a regulated Australian vessel, a reference to *the Administration* in Chapter II-2 means AMSA.
- (2) Any unified interpretation approved by the IMO of Chapter II-2, the FSS Code or the FTP Code is to be taken into account in complying with those instruments.

8 Application

This Order applies to a vessel that is:

- (a) a regulated Australian vessel; or
- (b) a foreign vessel.

Division 2 Exemptions and equivalents

9 Exemptions

- (1) A person may apply to AMSA, in accordance with the application process set out in *Marine Order 1 (Administration) 2013* for an exemption of a vessel from a requirement of this Order.
- (2) AMSA may give an exemption only if satisfied that:
 - (a) compliance with the requirement would be unnecessary or unreasonable having regard to the vessel, its equipment and its intended voyage; and
 - (b) giving the exemption would not contravene SOLAS.

Note *Marine Order 1 (Administration) 2013* deals with the following matters about exemptions and equivalents:

- making an application
- seeking further information about an application
- the time allowed for consideration of an application
- imposing conditions on approval of an application
- notification of a decision on an application
- review of decisions.

10 Equivalents

- (1) A person may apply to AMSA, in accordance with the application process set out in *Marine Order 1 (Administration) 2013* for approval to use an equivalent.
- (2) AMSA may approve use of an equivalent only if satisfied that:
 - (a) approving use of the equivalent would not contravene SOLAS; and
 - (b) either:
 - (i) the equivalent is in accordance with the FSS Code and the FTP Code; or
 - (ii) use of the equivalent would be at least as effective as compliance with the requirement to which the equivalent is an alternative.

Division 3 Requirements for vessels**11 Vessels to which Chapter II-2 applies**

- (1) A vessel to which Chapter II-2 applies must:
 - (a) meet the standards for fire protection, fire detection and fire extinction that apply to it under Chapter II-2; and
 - (b) for a regulated Australian vessel — comply with Schedules 1 to 3.

Note 1 Chapter II-2 incorporates requirements of the FSS Code and provides for testing in accordance with the FTP Code.

Note 2 Some provisions of Chapter II-2 apply to:

- (a) particular kinds of vessels; or
 - (b) vessels constructed before, on or after a particular time.
- (2) However, a vessel that is surveyed and certified under a code mentioned in *Marine Order 47 (Mobile offshore drilling units) 2012* or *Marine Order 49 (High-speed craft) 2009* must meet the standards mentioned in the code under which it is certified rather than those in Chapter II-2.

12 Vessels to which Chapter II-2 does not apply

- (1) A regulated Australian vessel to which Chapter II-2 does not apply must comply with the standards for fire protection, fire detection and fire extinction that:
 - (a) apply to the vessel's area of operation under:
 - (i) section 4 of Part C of the NSCV if:
 - (A) the vessel was constructed after 30 September 2008; or
 - (B) the vessel was constructed before 1 October 2008 and has been upgraded in service or is subject to initial survey; or
 - (ii) for a vessel not mentioned in subparagraph (i) — the pre-2008 USL Code; or
 - (b) if IACS Recommendation No. 99 applies to the vessel — are set out in that Recommendation.
- (2) A foreign vessel to which Chapter II-2 does not apply must carry and comply with any certificate or other document issued by or on behalf of the administration of the country in which it is registered.

Schedule 1 Breathing apparatus

(section 11)

- 1 A breathing apparatus required by Chapter II-2 must be approved by AMSA or a recognised organisation.
- 2 A self-contained breathing apparatus must:
 - (a) be a compressed air open circuit type; and
 - (b) be designed, tested and maintained to comply with:
 - (i) AS/NZS 1715:2009, *Selection, use and maintenance of respiratory protective equipment* and AS/NZS 1716:2012, *Respiratory protective devices*; or
 - (ii) an equivalent international standard.
- 3 For testing a self-contained breathing apparatus, a test procedure using human volunteers required by AS/NZS 1716:2012, the number of test persons is 10.
- 4 The means for recharging the air cylinder of a self-contained breathing apparatus must be:
 - (a) a high pressure tank that is capable of storing sufficient air, free from contamination, to enable all bottles to be quickly recharged and that gives effectively the same use time as if each breathing apparatus set had spare bottles with a capacity of 2 400 litres of free air; or
 - (b) a compressor that is driven by an emergency power source or other suitable independent power source and that is capable of recharging bottles with clean air in less time than is normally taken to expend the air.

Schedule 2 Fire extinguishers

(section 11)

- 1 In this clause:

extinguisher means a fire extinguisher other than a portable fire extinguisher.

portable fire extinguisher means a fire extinguisher that:

 - (a) is designed to be carried and operated by hand; and
 - (b) has a total weight of not more than 23 kg when in working order.
- 2 An extinguisher or a portable fire extinguisher must be designed, constructed and tested in accordance with:
 - (a) IMO resolution A.951(23) *Improved guidelines for marine portable fire extinguishers*; and
 - (b) European Council *Marine Equipment Directive 96/98/EC* or an equivalent international or Australian standard.
- 3 A vessel must have portable fire extinguishers of a kind and in the numbers and locations mentioned in IMO circular MSC.1/Circ.1275 *Unified interpretation of SOLAS Chapter II-2 on the number and arrangement of portable fire extinguishers on board ships*, as amended from time to time.

- 4 A galley must also have a fire blanket stowed close to a stove on which oil may be heated, unless the issuing body authorises the blanket to be stowed outside the galley.

Schedule 3 Additional requirements

(section 11)

1 Inspection, maintenance and testing

Equipment required by this Order must be inspected, maintained and tested in accordance with IMO circular MSC.1/Circ.1432 *Revised guidelines on maintenance and inspection of fire protection systems and appliances*, as amended from time to time.

2 Electric cables

- (1) An electric cable must be:
- flame-retardant; and
 - approved by AMSA or a recognised organisation; and
 - tested in accordance with Australian Standard AS/NZS 1660.5.6:2005 *Test methods for electric cables, cords and conductors — Fire tests — Test for vertical flame propagation for a single insulated wire or cable*.
- (2) A fire-resistant electric cable must be tested, for a flame application time of 120 minutes, in accordance with:
- if the diameter of the cable is more than 20 mm — IEC 60331-1 Ed 1.0 2009-5 *Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm*; or
 - if the diameter of the cable is not more than 20 mm — IEC 60331-21 Ed 1.0 1999-04 *Tests for electric cables under fire conditions - Circuit integrity - Part 21: Procedures and requirements - Cables of rated voltage up to and including 0,6/1,0 kV*.

3 General

A requirement mentioned in an item of the following table applies with any Chapter II-2 requirement mentioned in the item.

Chapter II-2 requirement (Regulation)	Requirement
4.2.1.3	Oil fuel with a flashpoint of at least 43°C may be used in motor lifeboat engines and in emergency generators. A rescue boat may be fitted with a petrol-driven outboard with an approved fuel system if the fuel tanks are protected against fire and explosion.
10.2.1.2.1.3	If AMSA has determined that a passenger vessel may be fitted with a periodically unattended machinery space, a fixed

Chapter II-2 requirement (Regulation)	Requirement
10.2.1.7 and FSS Code Chapter 2	<p>pressure water spraying fire-extinguishing system must be fitted in the space.</p> <p>If the fire main and hydrants of a vessel are located on 1 side only of a vessel, a branch main, terminating in a hydrant, must be fitted to provide a connection point on the other side of the vessel.</p> <p>The international shore connection must be stowed:</p> <ul style="list-style-type: none"> (a) in an accessible position on the open deck; and (b) remote from any space that could be considered a fire risk; and (c) so that the effects of a sea environment will not restrict its use.
10.2.1.6	The maximum pressure at a hydrant must be no more than 0.65 N/mm ² .
10.2.3.2.1	The diameter of a fire hose must be at least 38 mm. The number of fire hoses for a vessel is set out in Regulation 10.2.3 of Chapter II-2.
10.2.3.2.3.2	The number of hoses required by this Regulation is in addition to any hoses required in an engine or boiler room.
10.2.3.3	A spray nozzle must produce a spray that will not disturb a film of oil on water.
10.2.3.3	A nozzle for a deck hose on a tanker or a vessel with similar fire hazards must not be made of aluminium alloy.
10.3.2.1	A vessel of at least 500 and not more than 1000 gross tonnage must carry at least 5 portable fire extinguishers. A vessel less than 500 gross tonnage must carry 5 portable fire extinguishers, or a lesser number determined by AMSA.
10.5.1.2.2	A 45 kg CO ₂ fire extinguisher is equivalent to a 135 litre foam extinguisher.
FSS Code Chapter 7 2.1.1.5; Chapter 8 2.2.1 & 2.2.2	<p>If a pump is driven by independent internal combustion machinery:</p> <ul style="list-style-type: none"> (a) the fuel supply must be independent of the protected space; and (b) the fuel supply must be sufficient for 36 hours operation for a passenger vessel and 18 hours for a cargo vessel.

Note

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003*. See <http://www.frli.gov.au>.