



Australian Government
Australian Maritime Safety Authority

National Standard for Commercial Vessels

Part C – Design and Construction

Section 7 – Equipment

Subsection 7A – Safety Equipment

Edition 4.0 – External consultation draft

External consultation draft

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FOREWORD

This edition 4.0 amends edition 3.8 as a result of feedback from industry, recent coronial recommendations, updated external standards and advances in technology. Incorporates the changes in the new ISO 9650.1:2022 (liferafts) and AS 4758.1 (lifejackets) referenced standards.

External consultation draft

CONTENTS

CHAPTER 1	PRELIMINARY	6
1.1	Scope	6
1.2	Application	6
1.3	Referenced documents	6
1.4	Definitions	8
CHAPTER 2	REQUIRED OUTCOMES	11
2.1	Meeting the required outcomes	11
2.2	Required Outcomes	11
CHAPTER 3	SAFETY EQUIPMENT DESIGN AND CONSTRUCTION	13
3.1	Design and construction standards for safety equipment	13
CHAPTER 4	INSTALLATION OF SAFETY EQUIPMENT	18
4.1	General	18
4.2	Lifeboats and rescue boats	18
4.3	Liferafts	20
4.4	Dinghies	21
4.5	Buoyant appliances (excluding lifebuoys)	22
4.6	Lifebuoys	22
4.7	Lifejackets	22
4.8	Pyrotechnics and smoke signals	23
CHAPTER 5	TYPE AND QUANTITY OF SAFETY EQUIPMENT	24
5.1	Safety equipment to be carried	24
5.2	Open reversible liferafts	24
5.3	Class 1 vessels in hazardous sheltered waters	24
5.4	Alternative standards for specific inshore fishing vessels	24
5.5	Alternative standard for liferaft capacity	25
CHAPTER 6	SERVICING OF SAFETY EQUIPMENT	37
6.1	General	37
6.2	Liferafts	37
6.3	Marine evacuation systems	38
6.4	Inflatable lifejackets	38
6.5	Inflatable non-SOLAS rescue boats	38
6.6	Hydrostatic release units	38
6.7	Launching appliances	38
6.8	Liferaft EPIRBs	38

ANNEX A	STANDARDS FOR MARINE SAFETY EQUIPMENT	40
ANNEX B	STANDARDS FOR NON-SOLAS RESCUE BOATS	41
ANNEX C	STANDARDS FOR DINGHIES	43
ANNEX D	STANDARDS FOR COASTAL LIFERAFTS	45
ANNEX E	STANDARDS FOR OPEN REVERSIBLE LIFERAFTS	47
ANNEX F	STANDARDS FOR BUOYANT APPLIANCES (EXCLUDING LIFEBUOYS)	49
ANNEX G	STANDARDS FOR HYDROSTATIC RELEASE UNITS	53
ANNEX H	STANDARDS FOR FIRST AID AND MEDICAL SUPPLIES	54
ANNEX I	TRANSITIONAL ARRANGEMENTS FOR EXISTING VESSELS TO COMPLY WITH C7A	63
ANNEX J	SOLAS CHAPTER III REQUIREMENTS	69
ANNEX K	GUIDELINES CONCERNING THE USE AND FITTING OF RETRO-REFLECTIVE MATERIAL ON LIFE-SAVING APPLIANCES	74
ANNEX L	ALTERNATE STANDARDS FOR INSHORE 'WARM WATERS' FISHING VESSELS	75
ANNEX M	ALTERNATE STANDARDS FOR BEACH FISHERY VESSELS	78
ANNEX N	ALTERNATIVE STANDARD FOR LIFERAFT CAPACITY	80
ANNEX O	STANDARDS FOR ALTERNATE LIFERAFT (ISO TYPE 2) OPTION ON < 12 M 2C AND 3C VESSELS	81
ANNEX P	STANDARDS FOR ALTERNATE NON-ISO LIFERAFT OPTION ON < 7.5 M 2C AND 3C VESSELS	82
ANNEX Q	ALTERNATE ARRANGEMENTS TO CARRIAGE OF LIFERAFTS FOR < 7.5 M 2C AND 3C VESSELS WITHOUT LEVEL FLOTATION	83

CHAPTER 1 PRELIMINARY

1.1 Scope

- (1) NSCV C7A provides standards for the design, manufacture, servicing, installation, stowage, marking and scale of safety equipment to be carried on vessels.
- (2) Chapter 2 describes the performance outcomes required to achieve compliance.
- (3) Chapter 3 to 6 and the Annexes describe deemed-to-satisfy solutions for the performance outcomes in chapter 2.
- (4) This Subsection **must** be read in conjunction with NSCV Part B - General Requirements and the International Life-Saving Appliance Code (LSA Code).

1.2 Application

This Subsection applies to **all** domestic commercial vessels except:

- (a) special vessels as defined in NSCV Part F Special vessels (Part F), which must comply with Part F and are not required to comply with this section unless Part F specifies otherwise; and
- (b) non-survey vessels as defined in NSCV Part G Non-survey vessels (Part G), which must comply with Part G and are not required to comply with this section unless Part G specifies otherwise.

1.3 Referenced documents

Each document mentioned in the following table is:

- (c) referenced in this Subsection; and
- (d) the latest revision of the document, including amendments, unless stated otherwise.

NOTE: NSCV Part B provides that national, regional or international standards adopted or incorporated by reference in the NSCV are adopted or incorporated by reference as in force from time to time.

Publisher	Document	Available from
AMSA and Australian Government's Transport and Infrastructure Council, or Transport Infrastructure Ministers, (as appropriate)	National Standard for Commercial Vessels (NSCV) Part B - General Requirements (NSCV Part B) Part C, Section 3 - Construction (NSCV C3) Part C, Section 4 - Fire Safety (NSCV C4) Part C, Subsection 5B - Electrical (NSCV C5B) Part C, Subsection 6A - Intact stability requirements (NSCV C6A) Part C, Subsection 6B - Buoyancy and stability after flooding (NSCV C6B)	www.amsa.gov.au

	Part C, Subsection 7B - Communications equipment (NSCV C7B)	
Australian Maritime Safety Authority (AMSA)	<p><i>Marine Order 25 (Equipment - life-saving) 2014 (MO 25)</i></p> <p><i>Marine Order 30 (Prevention of collisions) (MO 30)</i></p> <p><i>Marine Order 503 (Certificates of survey – national law) 2018 (MO 503)</i></p> <p><i>Marine Order 504 (Certificates of operation and operation requirements - national law) 2018 (MO 504)</i></p>	https://www.amsa.gov.au
British Standards Institution	BS 381C:1996 Specification for colours for identification, coding and special purposes (BS 381C)	shop.bsigroup.com
International Maritime Organization (IMO)	<p>International Code of Safety for High-Speed Craft, 2000 (HSC Code)</p> <p>International Life-Saving Appliance Code (LSA Code), as amended</p> <p>International Maritime Dangerous Goods Code (IMDG Code)</p> <p>IMO Resolution MSC.81(70) Revised Recommendation on Testing of Life-Saving Appliances, as amended</p>	http://imo.org
International Organization for Standardization (ISO)	<p>ISO 6185 Inflatable Boats Parts 2-4 (ISO 6185)</p> <p>ISO 9650-1:2022 Small craft - Inflatable liferafts - Part 1: Type 1 and type 2 (ISO 9650-1)</p> <p>ISO 12402-2:2020 Lifejackets, performance level 275 - Safety requirements (ISO 12402-2)</p> <p>ISO 12402-3:2020 Personal flotation devices Part 3: Lifejackets, performance level 150 - Safety requirements (ISO 12402-3)</p> <p>ISO 24409-2 Ships and marine technology - Design, location and use of shipboard safety signs, safety-related signs, safety notices and safety markings - Part 2: Catalogue (ISO 24409-2)</p>	http://www.iso.org
Pharmaceutical Society of Australia	Australian Pharmaceutical Formulary Handbook	www.psa.org.au/
Safe Work Australia	Model Code of Practice for first aid in the workplace	<p>https://www.safeworkaustralia.gov.au/</p> <p>(Or as adopted by your local WHS / OHS regulator)</p>
Standards Australia	AS 1799.1-2009 - Small Pleasure Boats Code – Part 1 General requirements for power boats (AS 1799)	List of Australian Standards distributors

	<p>AS 2092-2004 - Pyrotechnic marine distress flares and signals for pleasure craft (AS 2092)</p> <p>AS/NZS 3504 - Fire blankets</p> <p>AS 2677 - Inflatable boats</p> <p>AS 2700 - Colour Standards for general purposes (AS 2700)</p> <p>AS/NZS 4280.1:2022 Global maritime distress and safety system (GMDSS), Part 1: Cospas-Sarsat EPIRB - Emergency position indicating radio beacon operating on 406 MHz - Operational and performance requirements, methods of testing and required test results (IEC 61097-2 (Ed.4.0) MOD) (AS 4280.1)</p> <p>AS/NZS 4280.2 406 MHz satellite distress beacons – personal locator beacons (PLBs) (AS 4280.2)</p> <p>AS 4758.1:2022 Lifejackets - part 1: general requirements (AS 4758.1)</p>	<p>available at www.standards.org.au</p>
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1.4 Definitions

(1) In NSCV C7A:

- (a) the definitions provided in NSCV Part B and those in this Clause 1.4 apply unless otherwise indicated; and
- (b) where there is any conflict in the terms defined between this Clause 1.4 and NSCV Part B, the definitions in this Clause 1.4 apply.

(2) In this Subsection:

basic flotation has the same meaning as the outcomes-based definition used in NSCV Subsection C6B.

beach fishery vessel means a Class 3C, 3D or 3E vessel less than 12 m long that operates:

- (a) only for the purpose of commercial beach fishing in accordance with Commonwealth, State or Territory commercial fisheries legislation; and
- (b) within 200 m of land; and
- (c) within 400 m of at least two shore-based persons who:
 - (i) monitor the vessel at all times; and
 - (ii) are capable of raising an alarm if the master appears to be in danger; and
 - (iii) are familiarised with the vessel's operation that is set out in a documented safety management system; and
 - (iv) are physically able to retrieve a person from the water.

buoyant appliance means a device designed to assist a person to float in water.

complement means the maximum number of persons the vessel is permitted to carry for its service category in compliance with the whole of the NSCV (see NSCV Part B where concurrent operations are carried out by the vessel).

NOTE: 'Persons' includes crew, passengers and special personnel.

Existing vessel has the meaning given by the legislation that applies NSCV C7A to the vessel, such as MO 503 or any Exemption that may apply from time to time.

Float-free bracket has the same meaning as the definition used in NSCV C7B.

Float-free EPIRB has the same meaning as the definition used in NSCV C7B.

GNSS equipped EPIRB has the same meaning as the definition used in NSCV C7B.

General emergency alarm system means an alarm signal for summoning all persons on board to muster stations if efficient mustering cannot be carried out by voice.

hazardous waters include waters:

- (a) where the average monthly sea surface temperature is $< +15$ C; or
- (b) waters that are reasonably known to be unsafe for persons to be immersed in the water while awaiting rescue, due to probability of presence of crocodiles or box jelly fish.

NOTE: Average sea surface temperature data is available free online. Nov 2022 Bureau of Meteorology data suggested only Tasmanian waters and some areas of Port Phillip Bay to have averages $< 15^{\circ}\text{C}$.

high-fire risk space has the same meaning as the definition used in NSCV C4.

highly visible colour means any of the following colours:

- (a) as defined in AS 2700:
 - X 15 - orange;
 - R 11 - international Orange;
 - R 12 - scarlet;
 - Y14 - golden yellow; or
- (b) as defined in BS 381C:1996, Ref 368:
 - ref 386 - traffic yellow;
 - ref 592 - international orange; or
- (c) an equivalent highly visible colour listed in a recognised standard for use in marine safety equipment.

JAS-ANZ means the Joint Accreditation System of Australia and New Zealand.

launching appliance means a device for transferring a survival craft or rescue boat from its stowed position safely to the water.

level flotation has the same meaning as the outcomes-based definition used in NSCV Subsection C6B.

NOTE: Examples of level flotation standards are the USL Code and NSCV Subsection C6B.

Liferaft means an inflatable liferaft.

manually-activated EPIRB means an emergency position indicating radio beacon fitted with a manual activation switch only, and which has an operating temperature range of -20°C to $+55^{\circ}\text{C}$.

NOTE: These were previously referred to in the NSCV as "class 3 EPIRBs", which is defined in AS/NZS 4280.1.

parent vessel's identification means either:

- (a) the vessel's Unique Identifier, or
- (b) the vessel's name and home port.

PLB means personal locator beacon complying with AS 4280.2

remote enclosed waters means waterways where assistance from shore based facilities or other vessels is not readily available and where rescue services would likely be required in the event of an emergency.

safety equipment has the same meaning as the definition of 'marine safety equipment' used in the National Law ("*equipment designed or used to mitigate the consequences of a marine incident*").

survival craft means a craft capable of sustaining the lives of persons in distress from the time of abandoning the vessel. It includes a lifeboat, rescue boat, liferaft, buoyant appliance and dinghy.

warm waters fishery vessel means a Class 3C, 3D or 3E vessel less than 12m long only while operating:

- (a) for the purpose of commercial fishing in accordance with Commonwealth, State or Territory commercial fisheries legislation; and
- (b) within 2nm of land; and
- (c) in significant wave heights of not more than 2.5m; and
- (d) in Australian waters extending north of latitude 23.5 S on the west coast and latitude 29 S on the east coast.

(3) In this Subsection, the following terms have the meaning given by the Dictionary in NSCV Part B:

certificate of survey

certificate of classification (or classification certificate)

Class 1 vessel

Class 2 vessel

Class 3 vessel

domestic commercial vessel

EPIRB

ISO

measured length

National Regulator

NSCV

operational area

recognised organisation

vessel use category

CHAPTER 2 **REQUIRED OUTCOMES**

2.1 **Meeting the required outcomes**

- (1) The safety equipment on a vessel must be of the type and quantity, and must be installed, maintained, and serviced, so that the required outcomes mentioned in clause 2.2 that apply to the vessel are met.
- (2) The required outcomes are met if:
 - (a) for a Class 1A, 1B extended, 2A, 2B extended, 3A and 3B extended vessel – the vessel complies with the provisions of MO 25 that would apply to the vessel if the vessel was a RAV; and
 - (b) for all other vessels:
 - (i) the deemed-to-satisfy solutions set out in Chapters 3 to 6 and any Annexes that apply to the vessel are met; or
 - (ii) for existing vessels – the deemed-to-satisfy solutions set out in Chapters 3 to 6 and any Annexes that apply to the vessel are met, as modified by Annex I.

NOTE 1: Annex I contains transitional standards for safety equipment on 'existing vessels' to align with standards for new vessels.

NOTE 2: The transitional periods for safety equipment carriage requirements on 'existing vessels' began on 1 January 2018.

NOTE 3: NSCV Part B provides for approved equivalent means of compliance if a vessel wishes to comply with a standard not mentioned in this Subsection that they consider equivalent to or exceeding the relevant deemed-to-satisfy solution(s).

2.2 **Required Outcomes**

Type and quantity

- (1) The safety equipment carried on a vessel must be of an appropriate type and quantity to control, so far as is reasonably practical, the risks associated with the operation of the vessel.
- (2) In determining the type and quantity of equipment to be carried, the following factors must be considered:
 - (a) the vessel's area of operation,
 - (b) the number, size, age and ability of persons on board,
 - (c) type of activities to be carried out,
 - (d) type of cargo carried, and
 - (e) other relevant risk factors.

Performance

- (3) Safety equipment must be designed, constructed, arranged, maintained and serviced to perform effectively in an emergency, during the full range of environmental conditions likely to be encountered by the vessel.

NOTE: Refer to the vessel's safety management system for vessel and equipment maintenance and record keeping requirements.

Location

- (4) Safety equipment stowage areas must be readily accessible, located away from high fire-risk areas and clearly marked.

NOTE: The National Regulator recommends the use of emergency “grab bags” containing basic distress and survival equipment, positioned to be readily accessible to crew in the event of abandoning the vessel. Grab bags should be located in the most appropriate position for each vessel, for example main companion way or near the helm.

Servicing

- (5) Servicing of an item of safety equipment required by this Subsection must only be undertaken by a person who is trained, competent and certified to perform those tasks.

Deploying and boarding of survival craft

- (6) Survival craft and its ancillary equipment must be designed, constructed, installed, arranged, maintained and serviced to enable its use in a safe and timely manner during emergency situations, by day or night, and in the full range of environmental conditions likely to be encountered by the vessel.

Operating instructions

- (7) Sufficient information in the working language of the vessel must be provided on board to enable the effective use of all safety equipment.

Marking

- (8) Items of safety equipment which may float must be marked with the identification of the parent vessel.

Abandoning the vessel

- (9) The safety equipment carried must allow rapid abandonment of the vessel by all persons on board at any time and during the full range of environmental conditions likely to be encountered by the vessel.

Retrieval of a person overboard

- (10) The safety equipment carried must enable rapid retrieval of a person overboard.
NOTE: Refer to the vessel's safety management system for person overboard procedures.

On board communications and alarm systems

- (11) Emergency announcements and or alarms, including mustering and abandon ship instructions, must be able to be heard by all persons on the vessel in emergency situations.

NOTE: Refer to the vessel's safety management system for details of the emergency procedures.

First aid and medical equipment

- (12) Adequate first aid / medical equipment must be carried on board to treat reasonably foreseeable medical conditions or injuries, or to temporarily stabilise a patient until outside medical assistance can be arranged.
- (13) The type of first aid and medical supplies carried must be appropriate to the vessel's operation including any hazardous goods on board.
- (14) The first aid equipment must be accessible to everyone on board.

Means to protect rescue boat crews

- (15) Rescue boat crews must be provided with safety and survival equipment to adequately protect them from exposure to the environmental conditions anticipated to be encountered in the operational area of the vessel.

CHAPTER 3 SAFETY EQUIPMENT DESIGN AND CONSTRUCTION

3.1 **Design and construction** standards for safety equipment

Specification

- (1) An item of safety equipment **listed** in column 1 of table 1 that is **required by Chapter 5 to be carried on a vessel, must** meet the **standard or requirement** specified for that item in column 2 of Table 1.

Assessment and verification

- (2) Safety equipment **must** be assessed and verified as meeting the applicable specification by one or more of the following methods:
 - (a) tested and specifically listed for the purpose by a recognised testing and listing organisation in Australia;
 - (b) certified by a JAS-ANZ accredited product certification body;
 - (c) type approved by a ship classification society recognised by the **National Regulator**;
 - (d) certified by a Notified Body recognised by **the National Regulator** in accordance with the EU Marine Equipment Directive, Module B.
- (3) Testing and listing, certification or type approval in the foregoing manner shall be deemed to be proof of compliance with the relevant standard or Annex of this Subsection.

Table 1 Construction and performance standards for safety equipment

Item of equipment	Annex or standard to which item must comply
Anti-exposure suit	SOLAS: 2.4 of the LSA Code
Buoyant appliance	Annex F
Buoyant smoke signal	SOLAS: 3.3 of the LSA Code
Dinghy	Annex C
Embarkation ladders for survival craft	6.1.6 of the LSA Code, or other standard approved by the National Regulator or a recognised organisation
EPIRB (in liferaft)	Annex ZZ of AS 4280.1:2017, a class 3 manually activated, non-float-free (-20C to +55C) EPIRB that is registered with AMSA (Note: this is a different standard to ship's EPIRB which is described in NSCV C7B)
EPIRB (float-free or GNSS equipped)	NSCV C7B. Must be registered with AMSA.
Flare – red hand flare	SOLAS: 3.2 of the LSA Code, or AS 2092-2004 (Note: the LSA code requires intensity of 15,000cd which at time of publishing this edition of C7A could only be met by pyrotechnic type red hand-held flares)
Flare – orange smoke signal	SOLAS: 3.3 of the LSA Code, or AS 2092
Flare – red rocket parachute	SOLAS: 3.1 of the LSA Code, or AS 2092
Hydrostatic release unit	Annex G
Launching appliance for Survival craft	SOLAS: 6.1 of the LSA Code
Lifeboat	SOLAS: 4.4 of the LSA Code
Lifebuoy	SOLAS: 2.1 of the LSA Code
Lifebuoy buoyant line	≥8 mm diameter, non-kinking, and breaking strain of ≥5 kN
Lifebuoy self-activating smoke signal	SOLAS: 2.1.2 of the LSA Code
Lifebuoy self-igniting light	SOLAS: 2.1.3 of the LSA Code
Lifejacket [Offshore]	AS 4758.1 (≥ 275N for adult), or ISO 12402-2 (≥ 275N), or SOLAS: (s2.2 of the LSA Code) Fitted with light and whistle

Item of equipment	Annex or standard to which item must comply
Lifejacket [Coastal]	<ul style="list-style-type: none"> • AS 4758.1 (minimum 150N for adult), or • ISO 12402-3 (150N), or • SOLAS: (s2.2 of the LSA Code)
Lifejacket light	SOLAS: 2.2.3 of the LSA Code
Lifejacket whistle	Non-corrosive, pea-less, marine grade
Liferaft SOLAS	4.1 and 4.2 of the LSA Code
Liferaft COASTAL	<ul style="list-style-type: none"> • ISO 9650-1:2022 type 1, and • Annex D of this Subsection <p>NOTE: ISO 9650-1:2022 type 1 covers liferafts with 4 to 16 person capacity, and that will have a maximum launch height of ≤ 6m.</p>
Liferaft ALTERNATIVE (for < 12m 2C and 3C vessels only, as per tables 3 and 4)	<p>Either:</p> <ul style="list-style-type: none"> • ISO 9650-1:2022 type 2, and • Annex O of this Subsection, <p>OR,</p> <p>for a vessel <7.5m:</p> <ul style="list-style-type: none"> • Annex P or Annex Q of this Subsection <p>NOTE: ISO 9650-1:2022 type 2 covers liferafts with 4 to 16 person capacity, and launch height ≤ 6m, that are only used in conditions not exceeding significant wave height of 2m, and wind speed of Beaufort 6 (≤27kn), with an ambient air temperature > 10 °C.</p>
Liferaft (open reversible)	Annex E
Line-throwing appliance [SOLAS]	SOLAS: 7.1 of the LSA Code
Marine evacuation system	SOLAS: 6.2 of the LSA Code
Public address system	SOLAS: 7.2 of the LSA Code
Rescue boat [SOLAS]	SOLAS: 5.1 of the LSA Code
Rescue boat [Non-SOLAS]	Annex B
Weak link	Annex G

Table 1.1 Summary of marking requirements for survival equipment

Item of equipment	Minimum marking required: retro reflective tape (as per Annex K) and the following in legible, permanently marked in contrasting colours:
Buoyant appliance (excluding lifebuoys)	The persons capacity and parent vessel's identification on both of the largest faces of the appliance in figures ≥ 75 mm in height. (See Annex F4 (1) and (5))
Dinghy	The persons capacity and parent vessel's identification on the dinghy's transom in figures ≥ 75 mm in height. (See Annex C (2) and (3))
Lifeboat [SOLAS]	On each side of the bow in figures ≥ 75 mm in height: (a) the number of persons for which it is approved to carry, and (b) the parent vessel's name and port of registry. (See 4.2 (1) and 4.4.9 of LSA code)
Lifebuoy	The parent vessel's identification in figures ≥ 75 mm in height. (See clause 4.6 (1))
Lifejacket	The parent vessel's identification in figures ≥ 30 mm in height. (from 4.7 (1))
Liferaft [Coastal]	In addition to the markings required by ISO 9650-1, the words 'Coastal Liferaft' must be: (1) marked on the liferaft and its container or valise, as well as its accompanying certificate, and (2) marked in such a form that it can be changed at any time without opening the container, with either: (a) the parent vessel's identification; or (b) the Hex ID or unique identification number (UIN) of the EPIRB that is fitted in the liferaft, or

Item of equipment	Minimum marking required: retro reflective tape (as per Annex K) and the following in legible, permanently marked in contrasting colours:
	(c) other appropriate identification of the parent vessel. (See Annex D5)
Rescue boat [SOLAS]	The parent vessel's identification and the persons capacity in figures ≥ 75 mm in height. (See 4.2 (1))
Rescue boat [Non-SOLAS]	The parent vessel's identification and the persons capacity in figures ≥ 75 mm in height. (See 4.2 (1) and Annex B5)

CHAPTER 4 INSTALLATION OF SAFETY EQUIPMENT

4.1 General

Stowage of safety equipment

Stowage above high fire risk spaces

- (1) Safety equipment (including lifejackets) **must** not be stowed directly above a machinery space or other high **fire** risk space, unless the deck in that area is protected in accordance with NSCV C4.

NOTE: Where an existing vessel's configuration is such that it restricts the ability to relocate the equipment, the National Regulator may approve an equivalent means of compliance as described in NSCV Part B.

Marking of stowage locations

- (2) Unless the equipment is visible, stowage locations for safety equipment **must** be marked, indicating the devices stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices **must** also be indicated.

NOTE: AMSA recommends the use of symbols that conform to ISO 24409-2.

Embarkation into survival craft

Means of embarkation

- (3) A means of embarkation into survival craft **must** be provided at each embarkation point where the freeboard between the intended embarkation point and the waterline is more than 1.5 m.
- (4) Where fitted, the means of embarkation **must** be long enough to reach the survival craft when afloat at the vessel's lightest sea-going draft with an adverse trim of 10° and list of 15°.
- (5) Where embarkation ladders are fitted, handholds, rails or stanchions **must** be provided to ensure a safe passage from the deck to head of the ladder and vice-versa.

NOTE: Where an existing vessel's configuration or arrangement is such that it is impracticable to have embarkation ladders (e.g. reduced freeboard) the National Regulator may approve an equivalent means of compliance, refer to NSCV Part B.

Marine evacuation systems

- (6) Where fitted, marine evacuation systems (MES) **must** meet the standard specified in table 1 and be stowed in accordance with SOLAS Ch III Regulation 15, which can be found in Annex J.

Overboard discharges

- (7) Overboard discharges **must** be able to be prevented from releasing onto survival craft during abandonment.

NOTE: Compliance with the USL Code requirements for overboard discharges will satisfy 4.1(7)

4.2 Lifeboats and rescue boats

Marking

-
- (1) In addition to the requirements for marking contained in MO 25 or Annex B as applicable, lifeboats and rescue boats must have the parent vessel's identification legibly and permanently marked on each side of the bow in figures not less than 75 mm in height in contrasting colours.

Stowage of SOLAS lifeboats and SOLAS rescue boats

- (2) SOLAS Lifeboats and SOLAS rescue boats must be stowed in accordance with SOLAS Ch III, Regulations 13 and 14, which can be found in Annex J.

Stowage of non-SOLAS lifeboats and non-SOLAS rescue boats

- (3) Non-SOLAS rescue boats must be stowed such that they:
- (a) are ready for immediate deployment (Inflatable rescue boats must be kept inflated at all times);
 - (b) are capable of being safely deployed within 5 minutes with a vessel trim of 10° and a list of 15° either way;
 - (c) do not impede the safe deployment of other survival craft;
 - (d) do not impede the marshalling of passengers to their assembly stations and their embarkation into other survival craft; and
 - (e) allow launching to take place down the side of the vessel

NOTE: This is specified to minimise the difficulty in launching, to minimise the possibility of persons in the survival craft being thrown from the survival craft and to minimise the possibility of the moving vessel striking the survival craft.

- (4) Non-SOLAS rescue boats must not be stowed or launched from any of the following positions:
- (a) forward of the collision bulkhead.
 - (b) where damage from the elements may occur.
 - (c) on or above cargo tanks on tankers; slop tanks; or other tanks containing explosive or hazardous cargoes.
 - (d) near the steeply overhanging portions of the hull aft.
 - (e) that would result in the rescue boat being in the vicinity of the vessel's propeller or other propulsive device when lowered.

Launching and retrieval

- (5) SOLAS lifeboats and SOLAS rescue boats must be able to be launched and recovered in accordance with the requirements specified in SOLAS Ch III Regulation 16 (see Annex J) and Chapter 5 of the LSA Code.
- (6) Non-SOLAS rescue boats must be able to be launched and recovered safely when loaded with two (2) persons (each assumed to be of 80 kg weight) and the boat's full outfit of equipment.
- (7) Structural members and all blocks, falls, padeyes, links, fastenings and all other fittings used in connection with launching equipment must use a factor of safety on the basis of its assigned working load limit and the breaking strain of the material used for construction. A minimum factor of safety of 4.5 must be applied to all structural members, and a minimum factor of safety of 6 must be applied to falls, suspension chains, links and blocks.

Illumination

-
- (8) **Sufficient illumination must** be provided in accordance with the requirements for emergency electrical installations in NSCV C5B, for:
- (a) lifeboats,
 - (b) rescue boats,
 - (c) their associated launching devices,
 - (d) their assembly, embarkation, launching areas, and
 - (e) the area of water into which they will be deployed and retrieved.

Operating instructions

- (9) Posters or signs **must** be provided on, or in the vicinity of lifeboats, rescue boats, their launching controls and **must**:
- (a) illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings; and
 - (b) be easily seen under emergency lighting conditions.

NOTE: **AMSA recommends the use of** symbols that conform to **ISO 24409-2**.

4.3 Liferrafts

Stowage of liferafts

- (1) Liferrafts **must** be stowed **as follows**:
- (a) in positions such that they float free if the vessel capsizes or sinks;
 - (b) **adequately secured to the vessel appropriate to the vessel's area of operation**;
 - (c) **if a hydrostatic release unit is used in the float-free arrangement, it must be installed in accordance with manufacturers' instructions and meet the requirements of Annex G**;
 - (d) **with its painter secured to a strong point on the vessel in such a way that ensures the liferaft, when released, and inflated, will not be dragged under by the sinking vessel. If a 'weak-link' is used in the painter connection to the vessel, it must comply with Annex G**;
 - (e) in a state of continuous readiness so that **it can be launched** by 2 crew members within 5 minutes;
 - (f) **where more than one liferaft is carried, all liferafts must be able to be** safely launched within 30 minutes. This requirement applies when the vessel has up to 10° trim and 15° list either way;
 - (g) on vessels where it is necessary due to reduced freeboard, restricted deck space, vulnerability to heavy weather damage, or otherwise, to stow a liferaft inboard from the vessel's side, it **must be stowed** so that one person, with a minimum of physical effort, can **launch it**;
 - (h) liferafts intended for **manual** launching **must** be readily transferable for launching on either side of the vessel;
 - (i) so as not to impede the safe deployment of other survival craft;
 - (j) so as not to impede the marshalling of passengers to their assembly stations and their embarkation on other survival craft.

NOTE: Also refer to manufacturer's recommendations on installation and location.

Liferafts launched from fixed launching devices

- (2) Liferrafts launched from fixed launching devices **must** not be stowed or launched from any of the following positions:

-
- (a) forward of the collision bulkhead.
 - (b) a position where damage from the elements may occur.
 - (c) on or above cargo tanks on tankers; slop tanks; or other tanks containing explosive or hazardous cargoes.
 - (d) near the steeply overhanging portions of the hull aft.
 - (e) a position that would result in the liferaft being in the vicinity of the vessel's propeller or other propulsive device when lowered.

Illumination

- (3) **Sufficient illumination must** be provided in accordance with the requirements for emergency electrical installations in NSCV C5B for liferaft:
 - (a) stowage,
 - (b) assembly,
 - (c) embarkation and
 - (d) launching areas.
- (4) **For liferafts launched from fixed launching devices, sufficient illumination must** also be **provided for** the launching devices and the area of water into which they will be deployed.

Operating instructions

- (5) Posters, signs or operating instructions **must** be provided on, or in the vicinity of liferafts and their launching controls and must:
 - (a) illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings; and
 - (b) be easily seen under emergency lighting conditions.

NOTE: **AMSA recommends use of** symbols that conform to **ISO 24409-2**.

4.4 Dinghies

Stowage of dinghies

- (1) Dinghies **must** be stowed so that they:
 - (a) can be safely deployed from a vessel with up to 10° trim and 15° list either way;
 - (b) do not impede deployment of other survival craft; and
 - (c) are ready for immediate deployment.

NOTE: Compliance with USL Code requirements for stowage will satisfy the requirement of 4.4 (1).

Launching

- (2) Where manual launching is not possible, a dinghy **must be capable of being launched** and recovered while loaded with 2 persons (each assumed to be 80 kg weight) and its full outfit of equipment.
- (3) The dinghy **must** be provided with fittings that are compatible with the method of launching **and recovery**.

Illumination

- (4) **Sufficient illumination must** be provided in accordance with the requirements for emergency electrical installations in NSCV Subsection C5B for dinghy:
 - (a) stowage;
 - (b) assembly;

- (c) embarkation; and
- (d) launching and retrieval areas.

4.5 Buoyant appliances (excluding lifebuoys)

Stowage of buoyant equipment

- (1) Buoyant appliances **must** be stowed in positions so that they:
 - (a) can be safely deployed from a vessel with up to 10° trim and 15° list either way; **and**
 - (b) do not impede deployment of other survival craft; and
 - (c) float free if the vessel capsizes or sinks.

Illumination

- (2) **Sufficient illumination must** be provided in accordance with the requirements for emergency electrical installations in NSCV C5B for buoyant appliance stowage areas and the areas of water into which they will be deployed.

4.6 Lifebuoys

Marking

- (1) Lifebuoys **must** have the parent vessel's identification legibly and permanently marked in a contrasting colour, in **text** at least 75 mm in height.

Stowage of lifebuoys

- (2) A lifebuoy **must** be stowed so that it:
 - (a) is not permanently secured; **and**
 - (b) is readily accessible to crew or passengers; and
 - (c) can be easily deployed.
- (3) Where two (2) lifebuoys with self-igniting lights and smoke signals are required, they **must** be stowed to allow for immediate access and rapid deployment from the operating position.

4.7 Lifejackets

Marking

- (1) In addition to the requirements for marking in **the relevant standard listed in table 1**, lifejackets **must** have the parent vessel's **name** legibly and permanently marked in a contrasting colour, in **text** at least **30** mm in height.

Stowage

- (2) Lifejacket stowage areas **must** be readily accessible and clearly marked.
- (3) **Lifejackets must not be stowed above high fire risk spaces.**
- (4) **Where practicable they should** be in dry areas protected from weather and excessive heat.

Donning instructions

- (5) Pictorial lifejacket **donning** instructions **must** be **displayed** at **the muster point**, **subject to 4.7(6).**

-
- (6) On small open vessels where it is impractical to have the donning instructions on display, the donning instructions must be available at all times and stowed with the lifejackets.

NOTE: If the vessels lifejacket stowage area/s and muster point are in the same location, and donning instructions are currently displayed at the stowage point, 4.7 (5) is met.

4.8 Pyrotechnics and smoke signals

Stowage and marking

- (1) Pyrotechnic and smoke signals **must** be stowed in a buoyant watertight container, fitted with a handle or lanyard. The container **must** be clearly and permanently marked as to its contents.
- (2) The container **must** be readily accessible to the crew.
- (3) On Class 3 vessels the container **must** be readily accessible and mounted in a float free position.

CHAPTER 5 TYPE AND QUANTITY OF SAFETY EQUIPMENT

5.1 Safety equipment to be carried

- (1) As a minimum, Safety equipment of the type and quantity mentioned in tables 2 – 4 for the type of vessel must be carried, except where clause 5.4 applies.
- (2) Where lifebuoys are carried as part of the required capacity of buoyant appliances, they should be considered to provide support for a maximum of two (2) persons only.

NOTE 1: Tables 2 – 4 contain the minimum equipment requirements for the vessel. The vessel's safety management system will identify if any additional safety equipment is required for the safe operation of the vessel.

NOTE 2: Specific types of inshore fishing operations have the option to either comply with table 4 or the alternate standards mentioned in clause 5.4.

NOTE 3: Part B of the NSCV requires that a vessel which has been assigned more than 1 service category must comply with the requirements of the highest of those service categories and any additional requirements of the other service categories to which it is assigned.

NOTE 4: This Subsection sets requirements for EPIRBs assigned to a vessel's liferafts. The requirements for a vessel's primary EPIRB are specified in NSCV C7B.

NOTE 5: In addition to carrying EPIRBs, the safety of crew members may be enhanced by wearing PLBs, particularly when working in higher risk operations. PLBs complying with AS/NZS 4280.2:2023 may also have AIS functionality as an additional safety feature. PLBs, like EPIRBs, need to be registered to be effective. Multiple PLB / EPIRB registrations can be assigned to a particular vessel. Details for the registration of PLBs are contained in AS 4280.2 or may be obtained from AMSA. The use of non-AIS electronic man-overboard alarm system may also enhance crew safety on board.

5.2 Open reversible liferafts

Alternative arrangements for restricted offshore operations

- (1) Coastal liferafts may be replaced by open reversible liferafts for restricted offshore (operational area C) operations if the documented risk assessment in the vessel's safety management system demonstrates the safety of crew and passengers would not be adversely affected.

Alternative arrangements for sheltered waters

- (2) Open reversible liferafts of equivalent aggregate capacity may replace dinghies and buoyant appliances for vessels operating in sheltered waters.
- (3) Dinghies must not replace open reversible liferafts.
- (4) Buoyant appliances must not replace open reversible liferafts, or dinghies, where dinghies are specifically required.

5.3 Class 1 vessels in hazardous sheltered waters

- (1) Class 1D and 1E vessels operating in hazardous waters must carry liferafts in lieu of buoyant appliances, except where clause 5.3(2) applies.
- (2) Liferafts may be replaced by buoyant appliances on Class 1D and 1E vessels operating in hazardous waters only if the documented risk assessment in the vessel's safety management system demonstrates the safety of crew and passengers would not be adversely affected.

NOTE: See definition of *hazardous waters* in 1.4.

5.4 Alternative standards for specific inshore fishing vessels (from EX02)

Alternative standards for 'warm waters' fishery vessels

- (1) Warm waters fishery vessels must either:
- (a) carry the safety equipment required for their vessel service category in Table 4;
or
 - (b) meet the alternative standards listed in Annex L.

Alternative standards for beach fishery vessels

- (2) Beach fishery vessels must either:
- (a) carry the safety equipment required for their vessel service category in Table 4;
or
 - (b) meet the alternative standards listed in Annex M.

5.5 Alternative standard for liferaft capacity

(from EX06)

When liferafts are being serviced, repaired, or replaced

If a liferaft assigned to a vessel is not in use due to being:

- (a) out of date; or
- (b) ashore for servicing or repair or replacement,

the vessel is exempt from complying with the minimum quantity of liferafts in tables 2, 3 or 4 of this Subsection, if all the criteria listed in Annex N are met.

Table 2 Scales of safety equipment for Class 1 vessels

Liferafts and rescue boats	1B	1C	1D	1E
Coastal liferaft(s) for 100% complement and a non-SOLAS Rescue Boat (R1)	≥25 m	≥25 m	NA	NA
Coastal liferaft for 100% complement	<25 m	<25 m	NA	NA
<p>KEY:</p> <p>(R1) – On vessels continuously engaged on voyages in operational areas with a monthly average sea surface temperature of 15°C or less, an anti-exposure suit of an appropriate size must be provided for every person assigned to crew the rescue boat.</p> <p>NOTE 1: Average sea surface temperature data is available free online. Nov 2022 Bureau of Meteorology data suggested only Tasmanian waters and some areas of Port Phillip Bay to have averages < 15°C.</p> <p>NOTE 2: Coastal liferafts complying with ISO 9650.1 are intended for vessels with liferaft launching heights of ≤ 6m. Vessels with liferaft launching heights of >6m will need to carry SOLAS liferafts.</p>				
Buoyant appliances (minimum capacity)	1B	1C	1D	1E
A dinghy plus sufficient buoyant appliances, lifebuoys or both for 100% complement	NA	NA	≥25 m (B1)	NA
Sufficient buoyant appliances, lifebuoys, dinghies or a combination for 100% complement	NA	NA	<25 m (B1)	NA
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 40% complement	NA	NA	NA	YES (B1, B2)
Retrieval equipment for person overboard	NA	NA	<25 m (B3)	<25 m (B3)
<p>KEY:</p> <p>(B1) – Liferafts must replace buoyant appliances on vessels where it may be unsafe to have persons immersed in the water. See 5.3 above.</p> <p>(B2) – Flooding Risk Category (FRC) II vessels without one-compartment subdivision or flooded stability and buoyancy as specified in NSCV C6B, must carry buoyant appliances for 100% complement.</p> <p>(B3) – Vessels must have suitable equipment on board to retrieve persons overboard, e.g. heaving line with rescue quoit, ladder, rescue sling, scramble net.</p> <p>NOTE: A lifebuoy is assumed to support two persons.</p>				
Lifebuoys	1B	1C	1D	1E
12 x lifebuoys: 4 with lights; 2 with lights and smoke signals; 2 with buoyant lines	≥60 m	NA	NA	NA

8 x lifebuoys: 2 with lights; 2 with lights and smoke signals; 2 with buoyant lines	≥45 <60 m	≥60 m	NA	NA
6 x lifebuoys: 1 with light; 2 with lights and smoke signals; 2 with buoyant lines	≥25 <45 m	≥45 <60 m	NA	NA
4 x lifebuoys: 2 with lights and smoke signals; 2 with buoyant lines	NA	≥25 <45 m	NA	NA
8 x lifebuoys: 1 with light; 1 with buoyant line	NA	NA	≥60 m (L1)	NA
6 x lifebuoys: 1 with light, 1 with buoyant line	NA	NA	≥45 <60 m (L1)	≥60 m (L1)
4 x lifebuoys: 1 with light, 1 with buoyant line	NA	NA	≥25 <45 m (L1)	≥45 <60 m (L1)
2 x lifebuoys: 1 with light, 1 with buoyant line	≥10 <25 m		≥10 <25 m (L1)	≥10 <45 m (L1)
1x lifebuoy with light	NA	NA	<10 m (L1)	
KEY: (L1) – Additional to buoyancy requirements (minimum capacity) section above.				
Lifejackets	1B	1C	1D	1E
Adult size Offshore lifejacket with light and whistle for 100% complement, plus <ul style="list-style-type: none"> child size Offshore lifejacket with light and whistle for the greater of: <ul style="list-style-type: none"> 10% of the passenger complement; and the actual number of children onboard, and infant size Offshore lifejacket with light for the greater of: <ul style="list-style-type: none"> 2.5% of the complement; and the actual number of infants on board. 	YES (J1) (J2) (J3)	NA	NA	NA
Coastal lifejacket with light and whistle for 100% complement	NA	YES (J1) (J2) (J3)	NA	NA
Coastal lifejacket for 100% complement	NA	NA	YES (J1) (J3)	YES (J1) (J3)
Key: (J1) If all lifejackets carried to satisfy table 2 are inflatable type, the vessel must carry as back-up:				

- for complement of < 20 persons - one additional lifejacket, or
 - for complement of ≥ 20 persons must carry an additional two lifejackets.

(J2) - In B or C waters, where any inflatable lifejackets are carried, the vessel must also carry a re-arming kit for each inflatable lifejacket.

(J3) – All lifejackets carried to satisfy table 2 should have the same donning method. To avoid confusion and delays in an emergency, a vessel must not carry more than two different designs / types of lifejackets.

Distress signals	1B	1C	1D	1E
Parachute distress rockets – [qty to be carried shown in ()]	YES (6)	YES (3)	YES (3)	NA
Red hand-held flares – [qty to be carried shown in ()]	YES (4)	YES (2)	YES (2)	YES (2)
Hand-held orange smoke signals – [qty to be carried shown in ()]	YES (2)	YES (1)	YES (1)	YES (1)
Line throwing appliance	1B	1C	1D	1E
4 x rockets and lines	≥45 m		NA	
On board communications and alarm systems	1B	1C	1D	1E
General emergency alarm system	≥25 m			
Public address system	YES - where the vessel has no other demonstrated effective means to address passengers in time of emergency.			
Emergency lighting (hand-held)	1B	1C	1D	1E
Battery-operated torch [qty to be carried shown in ()]	YES (2)	NA		
Battery-operated torch for each crew member	NA	YES		
Medical supplies	1B	1C	1D	1E
Medicines and medical stores	YES – as per Annex H			

Key for Alternative standard for liferaft capacity
 (from EX06)

When liferafts are being serviced, repaired, or replaced
 If a liferaft assigned to a vessel is not in use due to being:
 (c) out of date; or
 (d) ashore for servicing or repair or replacement,
 the vessel is exempt from complying with the minimum quantity of liferafts in tables 2, 3 or 4 of this Subsection, if all the criteria listed in Annex N are met.

Table 2:

'YES' means that the specific requirement applies to all vessels in that class.

'NA' means not applicable.

External consultation draft

Table 3 Scales of safety equipment for Class 2 vessels

Liferafts and rescue boats	2B	2C	2D	2E
Coastal liferaft(s) and other items as required by sections 33 to 36 of MO 25 (R1.1) (R1.2)	≥25 m	≥25 m	NA	NA
Coastal liferaft(s) for 100% complement	<25 m	<25 m ≥15 m	NA	NA
Compliance with one option listed in Table 3A	NA	<15 m	NA	NA
<p>KEY:</p> <p>(R1.1) – For the requirements in MO 25, a lifeboat must be a SOLAS lifeboat, a rescue boat must be a non-SOLAS rescue boat, and a liferaft must be a coastal liferaft.</p> <p>(R1.2) - On vessels continuously engaged on voyages in operational areas with a monthly average sea surface temperature of 15°C or less, an anti-exposure suit of an appropriate size must be provided for every person assigned to crew the rescue boat.</p> <p>NOTE 1: Average sea surface temperature data is available free online. Nov 2022 Bureau of Meteorology data suggested only Tasmanian waters and some areas of Port Phillip Bay to have averages < 15°C.</p> <p>NOTE 2: Coastal liferafts complying with ISO 9650.1 are intended for vessels with liferaft launching heights of ≤6m. Vessels with liferaft launching heights of >6m will need to carry SOLAS liferafts.</p>				
Buoyant appliances (minimum capacity)	2B	2C	2D	2E
A dinghy plus sufficient buoyant appliances, lifebuoys or both for 100% complement	NA	NA	≥25 m	NA
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 100% complement	NA	NA	<25 m ≥15 m	NA
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 100% complement	NA	NA	NA	≥15 m
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 100% complement	NA	NA	NA	<15 m (B1)
Sufficient buoyant appliances, lifebuoys, or both, for 100% complement or dinghy for 100% complement	NA	NA	<15 m (B1)	NA
Retrieval equipment for person overboard	NA	NA	<25 m (B2)	<25 m (B2)
<p>KEY:</p> <p>(B1) – Not required if vessel has level flotation.</p> <p>(B2) – Vessels must have suitable equipment on board to retrieve persons overboard, e.g. heaving line with rescue quoit, ladder, rescue sling, scramble net.</p> <p>NOTE 1: Each lifebuoy is assumed to provide support for two (2) persons.</p>				

NOTE 2: 'level flotation' has the same meaning as defined in NSCV C6B.

Lifebuoys	2B	2C	2D	2E
8 x lifebuoys: 2 with lights; 2 with lights and smoke signals; 2 with buoyant lines	≥60 m		NA	NA
6 x lifebuoys: 1 with light; 2 with lights and smoke signals; 2 with buoyant lines	≥45 <60 m		NA	NA
4 x lifebuoys: 2 with lights and smoke signals; 2 with buoyant lines	≥25 <45 m		NA	NA
2 x lifebuoys: 1 with light; 1 with buoyant line	≥15 <25 m		≥15 m (L1)	
1 x lifebuoy with light	<15 m	<15 m (L2)	<15 m (L1)	

KEY

(L1) – These do not need to be additional lifebuoys. Lifebuoys carried as Buoyant Appliances can be used for this purpose.

(L2) – Not required if vessel is < 10 m and carries 1 person only, or if vessel is < 6 m and has level flotation.

NOTE: 'level flotation' has the same meaning as defined in NSCV C6B.

Lifejackets	2B	2C	2D	2E
Adult size Offshore lifejacket with light and whistle for 100% complement, plus: <ul style="list-style-type: none"> a child size Offshore lifejacket with light and whistle for each child onboard, and an infant size Offshore lifejacket with light for each infant onboard. 	YES (J1) (J2) (J3)	NA	NA	NA
Coastal lifejacket with light and whistle for 100% complement	NA	YES (J1) (J2) (J3)	NA	NA
Coastal lifejacket for 100% complement	NA	NA	YES (J1) (J3)	

Key:

(J1) If all lifejackets carried to satisfy table 3 are inflatable type, the vessel must carry as back-up:

- for complement of < 20 persons - one additional lifejacket, or;

- for complement of ≥ 20 persons must carry an additional two lifejackets.

(J2) - In B or C waters, where any inflatable lifejackets are carried to satisfy table 3, the vessel must also carry a re-arming kit for each inflatable lifejacket.

(J3) – All lifejackets carried to satisfy table 3 should have the same donning method. To avoid confusion and delays in an emergency, a vessel must not carry more than two different designs / types of lifejackets.

Distress signals	2B	2C	2D	2E
Parachute distress rockets – [qty to be carried shown in ()]	YES (6)	YES (3)	YES (3)	NA
Red hand-held flares – [qty to be carried shown in ()]	YES (4)	YES (2)	YES (2)	YES (2)
Hand-held orange smoke signals – [qty to be carried shown in ()]	YES (2)	YES (1)	YES (1)	YES (1)
On board communications and alarm systems	2B	2C	2D	2E
General emergency alarm system	≥25 m			
Emergency lighting (hand-held)	2B	2C	2D	2E
Battery-operated torch [qty to be carried shown in ()]	YES (2)	NA		
Battery-operated torch for each crew member	NA	YES		
Medical supplies	2B	2C	2D	2E
Medicines and medical stores	YES – as per Annex H			
Key for table 3: 'YES' means that the specific requirement applies to all vessels in that class. 'NA' means not applicable.				

Table 4A Liferaft options for Class 2C vessels <15 m

Option	Eligible vessels	Requirement
Option A <i>Level flotation</i>	Vessels <15 m with level flotation ^{A1}	No liferaft(s) – unless operating in hazardous waters ^{A2} and the vessel's SMS demonstrates that risks of operating without a liferaft in those waters are controlled.
Option B <i>Coastal liferaft</i>	Vessels <15 m without level flotation ^{A1}	Coastal liferaft(s) for 100% complement
Option C <i>Alternative liferaft</i>	Vessels <12 m without level flotation ^{A1}	Coastal liferaft(s) for 100% complement, or Alternative liferaft(s) for 100% complement ^{A3}
Option D <i>Lifejacket wear</i>	Vessels <7.5 m without level flotation ^{A1} and not operating in hazardous waters ^{A2}	Coastal liferaft(s) for 100% complement, or Alternative liferaft(s) ^{A3} for 100% complement, or No liferaft – only if the vessel meets all the arrangements listed in Annex Q ^{A4} including all persons onboard the vessel wear a lifejacket at all times.

NOTES

A1 – See definition of level flotation in clause 1.4.

A2 – See the definition of hazardous waters in clause 1.4.

A3 – See Table 1 for the alternative liferaft standards. Some alternative liferaft standards only apply to liferafts on vessels <7.5m.

A4 – Annex Q requires the vessel to have basic flotation, carry buoyant appliances (or have grab lines) and an EPIRB, and to only be operated in certain conditions.

External consultation draft

Table 5 Scales of safety equipment for Class 3 vessels

Liferafts and rescue boats	3B	3C	3D	3E
Coastal liferaft(s) and other items as required by sections 33 to 36 of MO 25 (R1.1) (R1.2)	≥25 m		NA	NA
Coastal liferaft(s) for 100% complement	<25 m	<25 m ≥15 m	NA	NA
Compliance with one option listed in Table 4A	NA	<15 m	NA	NA
<p>KEY:</p> <p>(R1.1) – For the requirements in MO 25, a lifeboat must be a SOLAS lifeboat, a rescue boat must be a non-SOLAS rescue boat, and a liferaft must be a coastal liferaft.</p> <p>NOTE: Coastal liferafts complying with ISO 9650.1 are intended for vessels with liferaft launching heights of ≤6m. Vessels with liferaft launching heights of >6m will need to carry SOLAS liferafts.</p> <p>(R1.2) - On vessels continuously engaged on voyages in operational areas with a monthly average sea surface temperature of 15°C or less, an anti-exposure suit of an appropriate size must be provided for every person assigned to crew the rescue boat.</p> <p>NOTE: Average sea surface temperature data is available free online. Nov 2022 Bureau of Meteorology data suggested only Tasmanian waters and some areas of Port Phillip Bay to have averages < 15°C.</p>				
Buoyant appliances (minimum capacity)	3B	3C	3D	3E
A dinghy plus sufficient buoyant appliances, lifebuoys or both for 100% complement	NA	NA	≥25 m	NA
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 100% complement	NA	NA	<25 m ≥15 m	NA
Sufficient buoyant appliances, lifebuoys, dinghies or combination for 100% complement	NA	NA	NA	≥15 m
Sufficient buoyant appliances, lifebuoys or both for 100% complement	NA	NA	NA	<15 m (B1)
Sufficient buoyant appliances, lifebuoys, or both, for 100% complement, or dinghy for 100% complement	NA	NA	<15 m (B1)	NA
Retrieval equipment for person overboard	NA	NA	<25 m (B2)	<25 m (B2)
<p>KEY:</p> <p>(B1) – Not required if vessel has level flotation.</p> <p>(B2) – Vessels must have suitable equipment on board to retrieve persons overboard, e.g. heaving line with rescue quoit, ladder, rescue sling, scramble net.</p> <p>NOTE 1: Each lifebuoy is assumed to provide support for two (2) persons.</p>				

NOTE 2: 'level flotation' has the same meaning as defined in NSCV C6B.

Lifebuoys	3B	3C	3D	3E
8 x lifebuoys: 2 with lights; 2 with lights and smoke signals; 2 with buoyant lines	≥60 m		NA	NA
6 x lifebuoys: 1 with light; 2 with lights and smoke signals; 2 with buoyant lines	≥45 <60 m		NA	NA
4 x lifebuoys: 2 with lights and smoke signals; 2 with buoyant lines	≥25 <45 m		NA	NA
2 x lifebuoys: -1 with light, 1 with buoyant line	≥15 <25 m		≥15 (L1)	
1 x lifebuoy with light	<15 m	<15 m (L2)	<15 m (L1)	

KEY:

(L1) – These do not need to be additional lifebuoys. Any lifebuoys carried as required Buoyant Appliances can be used for this purpose.

(L2) – Not required if vessel is < 10 m and carries 1 person only, or if the vessel is < 6 m and has level flotation.

NOTE: 'level flotation' has the same meaning as defined in NSCV C6B.

Lifejackets	3B	3C	3D	3E
Adult size Offshore lifejacket with light and whistle for 100% complement, plus: <ul style="list-style-type: none"> a child size Offshore lifejacket with light and whistle for each child onboard, and an infant size Offshore lifejacket with light for each infant onboard. 	YES (J1) (J2) (J3)	NA	NA	NA
Coastal lifejacket with light and whistle for 100% complement	NA	YES (J1) (J2) (J3)	NA	NA
Coastal lifejacket for 100% complement	NA	NA	YES (J1) (J3)	

Key:

(J1) If all lifejackets carried to satisfy table 4 are inflatable type, the vessel must carry as back-up:

- for complement of < 20 persons - one additional lifejacket, or;
- for complement of ≥ 20 persons must carry an additional two lifejackets.

(J2) - In B or C waters, where any inflatable lifejackets are carried to satisfy table 2, the vessel must also carry a re-arming kit for each inflatable lifejacket.

(J3) – All lifejackets carried to satisfy table 2 should have the same donning method. To avoid confusion and delays in an emergency, a vessel must not carry more than two different designs / types of lifejackets.

Distress signals	3B	3C	3D	3E
Parachute distress rockets – [qty to be carried shown in ()]	YES (6)	YES (3)	YES (3)	NA
Red hand-held flares – [qty to be carried shown in ()]	YES (4)	YES (2)	YES (2)	YES (2)
Hand-held orange smoke signals – [qty to be carried shown in ()]	YES (2)	YES (1)	YES (1)	YES (1)
On board communications and alarm systems	3B	3C	3D	3E
General emergency alarm system	≥25 m		NA	
Emergency lighting (hand-held)	3B	3C	3D	3E
Battery-operated torch [qty to be carried shown in ()]	YES (2)	NA		
Battery-operated torch for each crew member	NA	YES		
Medical supplies	3B	3C	3D	3E
Medicines and medical stores	YES – as per Annex H			
Key for table 4:				
'YES' means that the specific requirement applies to all vessels in that class.				
'NA' means not applicable.				

Table 4A Liferaft options for Class 3C vessels <15 m

Option	Eligible vessels	Requirement
Option A <i>Level flotation</i>	Vessels <15 m with level flotation ^{A1}	No liferaft(s) – unless operating in hazardous waters ^{A2} and the vessel's SMS demonstrates that operating without a liferaft in those waters to be acceptable.
Option B <i>Coastal liferaft</i>	Vessels <15 m without level flotation ^{A1}	Coastal liferaft(s) for 100% complement
Option C <i>Alternative liferaft</i>	Vessels <12 m without level flotation ^{A1}	Coastal liferaft(s) for 100% complement, or Alternative liferaft(s) for 100% complement ^{A3}
Option D <i>Lifejacket wear</i>	Vessels <7.5 m without level flotation ^{A1} and not operating in hazardous waters ^{A2}	Coastal liferaft(s) for 100% complement, or Alternative liferaft(s) ^{A3} for 100% complement, or No liferaft – only if the vessel meets all the arrangements listed in Annex Q ^{A4} including all persons onboard the vessel wear a lifejacket at all times.

NOTE

A1 – See definition of level flotation in clause 1.4.

A2 – See the definition of hazardous waters in clause 1.4.

A3 – See Table 1 for the alternative liferaft standards. Some alternative liferaft standards only apply to liferafts on vessels <7.5m.

A4 – Annex Q requires the vessel to have basic flotation, carry buoyant appliances (or have grab lines) and an EPIRB, and to only be operated in certain conditions.

External consultation draft

CHAPTER 6 SERVICING OF SAFETY EQUIPMENT

6.1 General

- (1) This Chapter specifies the **minimum standards** for servicing of safety equipment **carried on vessels**.

NOTE 1: These standards have been determined as proportional to the foreseeable risk if the item of safety equipment was to fail at time of need. As a result, standards for servicing of safety equipment tend to be rigorous to promote reliability of performance, and options for equivalent **means of compliance** may be limited.

NOTE 2: Servicing can also provide the opportunity for **any** periodic survey inspection of the equipment **that may be required** on behalf of the **National Regulator**.

NOTE 3: Procurement **of items** of safety equipment **which** require servicing should **consider** the long-term availability of geographically practicable servicing stations approved by the manufacturer of the safety equipment.

6.2 Liferafts

- (1) Liferafts **must** be serviced at intervals of 12 months, or such longer intervals as recommended by the manufacturer and approved at the time the product is assessed and verified in accordance with clause 3.1(1).

NOTE: Liferafts with approved extended service intervals (ESI) noted on their type approval certificates, need to meet all the requirements of the manufacturer's instructions to be eligible for the extended service interval. Generally, this requires **additional annual onboard inspection of the liferaft and appropriate record keeping of the inspection**.

- (2) Servicing **must** be carried out by a person or organisation that:
- (a) is approved and accredited to do so by the manufacturer of the liferaft being serviced;
 - (b) possesses the current servicing manuals (including amendments) as provided by the liferaft manufacturer, and all updates to such manuals and other safety bulletins within one month of their publication;
 - (c) has access to genuine spare parts; materials and tools for each type and make of liferaft serviced;
 - (d) undertakes all necessary training as determined by the manufacturer to maintain expertise; and
 - (e) maintains a quality management system.

NOTE: A comprehensive service history of the liferaft detailed in a logbook would satisfy the quality management system requirement above.

Replacement liferafts

- (3) If a liferaft on a vessel is replaced for any reason, the replacement liferaft/s are taken to comply with this subsection if it:

- (a) meets the requirement of table 1 and;
- (b) is at least of the same persons capacity as the item/s being replaced; and is either
 - (i) the same make and model as the item replaced; or
 - (ii) a different make and model and either;

A. is compatible with the original raft's cradle or launching appliance; or

B. is installed with a compatible cradle or launching appliance.

6.3 Marine evacuation systems

Marine evacuation systems (MES) on a vessel **must** be serviced:

- (a) at intervals of 12 months, or such longer intervals as recommended by the manufacturer and approved at the time the product is assessed and verified in accordance with Clause 3.1(1); and
- (b) at a servicing station approved and accredited to do so by the manufacturer of the marine evacuation system.

6.4 Inflatable lifejackets

Inflatable lifejackets **carried on board to satisfy tables 2, 3 or 4 must** be serviced:

- (a) at intervals of 12 months, or such longer intervals as recommended by the manufacturer and approved at the time the product is assessed and verified in accordance with Clause 3.1(1); and
- (b) **by a person who is trained, competent and certified by the manufacturer to conduct the servicing.**

6.5 Inflatable non-SOLAS rescue boats

All repairs and maintenance of inflatable rescue boats **must** be carried out in accordance with the manufacturer's instructions. While emergency repairs may be carried out on board the vessel, permanent repairs must be **completed** at a servicing station approved and accredited to do so by the manufacturer of the inflatable rescue boats.

6.6 Hydrostatic release units

- (1) A hydrostatic release unit **must** be inspected at intervals of 12 months or such longer intervals as recommended by the manufacturer and approved at the time the product is assessed and verified in accordance with Clause 3.1(1).
- (2) The inspection **must** be conducted in situ to ensure that the unit has not activated and that attachments remain secure.
- (3) A hydrostatic release unit **must** be replaced at the end of its specified life span in accordance with the manufacturer's instructions.

6.7 Launching appliances

Launching appliances **must** be:

- (a) serviced at recommended intervals in accordance with the manufacturer's instructions;
- (b) subjected to a thorough examination at intervals not exceeding 5 years; and
- (c) upon completion of the examinations in Clause 6.7(b) be subject to a dynamic test of the winch brake with a proof load of not less than 1.1 times the maximum working load limit at the maximum lowering speed.

6.8 Liferaft EPIRBs

- (1) EPIRBs contained in liferafts **must** be inspected and tested whenever the liferaft is serviced.
- (2) EPIRBs **contained in liferafts must** also be serviced **during the liferaft service** if **they are due for service before the next liferaft service due date.**

NOTE: Standards for the vessel's primary EPIRB are in NSCV C7B.

External consultation draft

ANNEX A STANDARDS FOR MARINE SAFETY EQUIPMENT

A1 Design and construction

Marine safety equipment specified in this subsection C7A, must comply with the design and construction standards listed in table 1.

External consultation draft

ANNEX B **STANDARDS** FOR NON-SOLAS RESCUE BOATS

B1 Scope

This Annex provides **standards** for the design, construction, and marking of non-SOLAS rescue boats. It forms a normative (mandatory) part of this document.

B2 Design and construction

General

- (1) A non-SOLAS rescue boat must comply with the following:
 - (a) The minimum length of the boat must be 3.8 m.
 - (b) The boat design and construction criterion specified in column 1 of table B1 must comply with the standard specified in column 2 of table B1.

Table B.1 Design and construction standards for non-SOLAS rescue boats

Criterion description	Standard
Construction	NSCV C3; or AS 2677, or ISO 6185
Intact stability	NSCV C6A
Reserve buoyancy and swamping including the fitting of buoyancy materials	NSCV C6B

Colour

- (2) A non-SOLAS rescue boat **must** be of a highly visible colour.

B3 Fittings

Grab-lines

- (1) Grab-lines **must** be secured to the side of the rescue boat to support the upper torso of a person out of the water when holding onto them and to facilitate recovery of persons.
- (2) Grab-lines, **as shown in figure C 1, must** not be secured more than 150 mm or less than 100 mm below the gunwale. The securing points **must** be spaced at not more than 460 mm or less than 300 mm centres and interlaced to prevent movement. The depth of the loop when at right angles to the vessel **must** be not more than 200 mm or less than 150 mm.

Towing

- (3) Arrangements for towing **must** be permanently fitted to the rescue boat and be sufficiently strong to marshal and tow liferafts as required in Clause B4 I5(1)(a).

Lifting system

- (4) A non-SOLAS rescue boat **must** comply with the lifting system requirements of AS 1799.1. The lifting system **must** be capable of lifting the rescue boat when loaded with two (2) persons each assumed to be of 80 kg weight, and its full outfit of equipment.

NOTE: This Clause does not imply that rescue boats are required to be launched and retrieved with persons on board.

Painter

- (5) A non-SOLAS rescue boat **must** be fitted with a painter of sufficient length to allow deployment of the rescue boat from its maximum possible height and have a breaking strength of 10 kN.

B4 Equipment

- (1) A non-SOLAS rescue boat **must** be equipped with the following:
 - (a) a motor(s) of sufficient power to provide mobility and manoeuvrability in a seaway to enable persons to be retrieved from the water and to marshal / tow liferafts. The maximum power capacity must be determined in accordance with the requirements of AS 1799.1;
 - (b) lifejackets, additional to those required to be carried on the parent vessel, must be provided for every person assigned to crew the rescue boat. Buoyant anti-exposure suits, where provided, must be deemed to satisfy this requirement;
 - (c) a waterproof, battery-operated torch;
 - (d) a bailer of robust construction fitted with a lanyard, or a bilge pump;
 - (e) oars or paddles;
 - (f) a heaving line with rescue quit.
- (2) For inflatable rescue boats the following equipment **must** also be supplied:
 - (a) a bellows or pump complete with hose and adapter to suit inflation valves and which must be capable of inflating the rescue boat to normal working pressure.

emergency repair kit, complete with suitable patches, adhesive and instructions.

B5 Marking of rescue boats

Retro-reflective tapes

- (1) Retro-reflective tapes **must** comply and be fitted in accordance with the requirements for rescue boats **in Annex K and figure C 1.**

Persons capacity

- (2) The persons capacity of a non-SOLAS rescue boat **must** be determined in accordance with AS 1799.1 using 80 kg as the average weight of a person and **must** be legibly and permanently marked upon it in contrasting colours in figures not less than 75 mm in height.
- (3) **The rescue boat must have the parent vessel's identification legibly and permanently marked on each side of the bow in figures not less than 75 mm in height in contrasting colours.**

ANNEX C **STANDARDS** FOR DINGHIES

C1 **Scope**

This Annex provides **standards** for the design, construction, and marking of dinghies. It forms a normative (mandatory) part of this document.

C2 **Design and construction**

General

- (1) A dinghy **must** comply with the following:
 - (a) the minimum length of the dinghy **must** be 2.4 m;
 - (b) the dinghy design and construction criterion specified in column 1 of Table C1 **must** comply with the standard specified in column 2 of Table C1.

Table C.1 Design and construction standards for dinghies

Criterion description	Standard
Construction	NSCV C3
Intact stability	NSCV C6A
Reserve buoyancy and swamping including the fitting of buoyancy materials	NSCV C6B

Colour

- (2) A dinghy **must** be of a highly visible colour.

C3 **Fittings**

Grab-lines

- (1) The dinghy **must** be fitted with grab-lines, which are effective with the dinghy upright or upturned.
- (2) Grab-lines, as shown figure C 1, **must** not be secured more than 150 mm or less than 100 mm below the gunwale. The securing points **must** be spaced at not more than 460 mm or less than 300 mm centres and interlaced to prevent movement. The depth of the loop when at right angles to the vessel **must** be not more than 200 mm or less than 150 mm.

C4 **Equipment**

A dinghy **must** be equipped with the following:

- (a) two (2) oars and rowlocks, or paddles;
- (b) one (1) painter attached to bow;
- (c) one (1) bucket or bailer, attached by lanyard; and
- (d) one (1) bung permanently attached by lanyard.

C5 **Marking**

Retro-reflective tapes

- (1) Retro-reflective tapes **must** comply and be fitted in accordance with the requirements of **Annex K** and Figure C1.

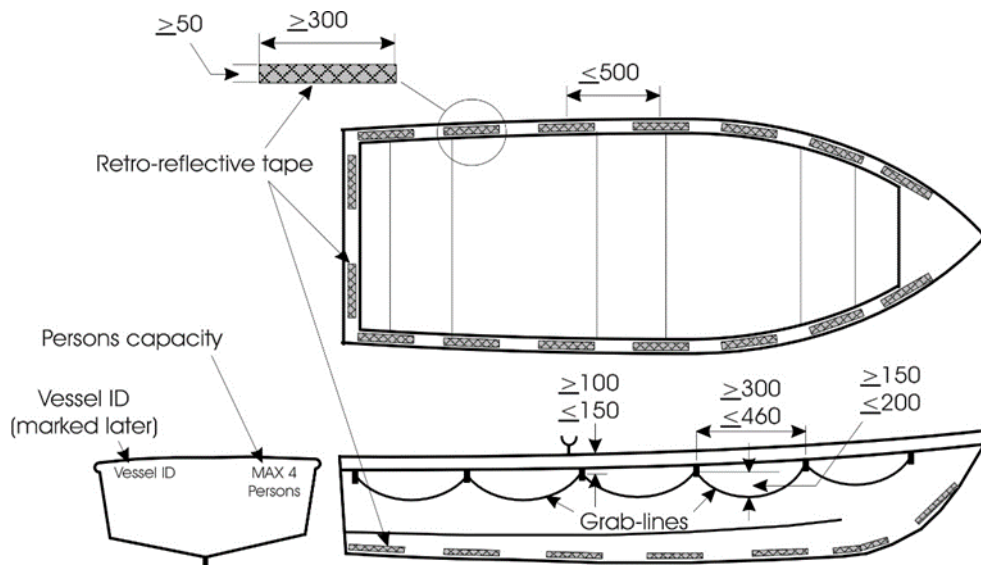
Persons capacity

- (2) The persons capacity of a dinghy **must** be determined in accordance with AS 1799.1 using 80 kg as the average weight of a person and **must** be legibly and permanently marked upon the dinghy's transom in contrasting colours in figures not less than 75 mm in height.

Parent vessel identification

- (3) The parent vessel's identification **must** be legibly and permanently marked on the dinghy's transom in figures not less than 75 mm in height in a contrasting colour.

Figure C 1 Dinghy marking and grab-lines



ANNEX D STANDARDS FOR COASTAL LIFERAFTS

D1 SCOPE

This Annex D provides standards for the design, construction, fittings, equipment, rations, stowage, launching, performance testing and marking of coastal liferafts. It forms a normative (mandatory) part of this document.

D2 DESIGN AND CONSTRUCTION

- (1) A coastal liferaft must comply with the applicable standard in column 4 of table D.1:

Table D.1 – Standards for liferaft design and construction

Persons capacity	Height from which the raft will be launched	Vessel length	Construction Standard
> 16	Any	Any	SOLAS - (LSA Code Chapter IV, section 4.2) and this Annex, other than D5(2).
4 to 16	≤ 6m	≤ 24m	COASTAL - (ISO 9650-1 type 1) and this Annex;

- (2) Where there is any conflict between the ISO 9650-1 specifications or the LSA Code, and this Annex, the standards in this Annex will apply.

D3 EQUIPMENT AND RATIONS

A Coastal liferaft must be fitted with the following equipment and rations:

- (a) for a liferaft that carries up to 16 persons and complies with ISO 9650-1 type 1, all of the following:
- (i) the fittings specified in ISO 9650-1; and
 - (ii) the equipment specified for type 1, pack 2, < 24 h, in ISO 9650-1; and
 - (iii) the equipment specified for type 1, pack 1, > 24 h, in ISO 9650-1; and
 - (iv) a manually-activated EPIRB that is registered with AMSA; or
- (b) for a liferaft that carries more than 16 persons and complies with the LSA Code – the equipment and rations specified in the LSA Code paragraph 4.1.5.1 (SOLAS PACK A), as modified by MO 25 schedule 1 section 10 (liferaft equipment).

NOTE: It is helpful for the search and rescue centres to know whether the detected EPIRB activation distress signal is the from ship's main EPIRB or a liferaft EPIRB, so they know which type of craft they are looking for. When registering an EPIRB that will be stowed in a liferaft, you should select EPIRB placement 'in liferaft'.

D4 STOWAGE AND LAUNCHING

Stowage

- (1) Coastal liferafts must be stowed in accordance with Chapter 4 of this Subsection.

Weight

- (2) Unless **the liferaft is** designed to be launched by a launching appliance or marine evacuation system, or is stowed such that one person can launch it in adverse conditions, the liferaft **must** be capable of being launched by 2 persons.

Launching

- (3) A liferaft designed for launching inflated with a launching appliance **must** be of sufficient strength to permit it to be safely lowered into the water when loaded with its full complement of persons and equipment.

Instructions for the parent vessel

- (4) The instructions supplied with a liferaft **must** include how to stow the liferaft the correct side up, in an appropriate stowage and secure the painter.

D5 MARKING

Product information

- (1) In addition to the requirements of **D2 (1)**, the liferaft and its container or valise, and also its accompanying certificate, **must** include the words: 'Coastal Liferaft'.
- (2) The accompanying certificate **must** be kept on board the parent vessel.

Parent vessel identification

- (3) In addition to the requirements for marking contained in **D2 (1)**, a liferaft **must** be legibly marked in contrasting colours in such a form that it can be changed at any time without opening the container with either:
 - (a) the parent vessel's identification; or
 - (b) the HexID or unique identification number (UIN) of the EPIRB that is fitted in the liferaft; or
 - (c) other appropriate identification to facilitate rapid identification of the parent vessel to which the liferaft was fitted.

D6 SERVICING

- (1) Coastal liferafts **must** be serviced in accordance with Chapter 6 of this Subsection.

Replacement liferafts

- (2) If a liferaft on a vessel is replaced for any reason, the replacement liferaft/s **must**:
 - (a) meet the requirement of Table 1 and;
 - (b) be of at least of the same person capacity as the liferaft/s being replacing and be either:
 - (i) the same make and model as the item replaced; or
 - (ii) if a different make and model:
 - A. compatible with the original raft's cradle or launching appliance; or
 - B. be installed with a compatible cradle or launching appliance.

ANNEX E **STANDARDS** FOR OPEN REVERSIBLE LIFERAFTS

E1 SCOPE

This Annex E provides **standards** for the design, construction, fittings, equipment, rations, stowage, launching, performance testing and marking of open reversible liferafts. It forms a normative (mandatory) part of this document.

E2 DESIGN AND CONSTRUCTION

- (1) An open reversible liferaft **must** comply with the **specifications** in:
 - (a) either:
 - (i) Annex 11 of the HSC Code; or
 - (ii) for a vessel operating in operational areas D or E, both:
 - A. Annex 11 of the HSC Code, other than clause 2.10; and
 - B. the number of persons which the open reversible liferaft is permitted to carry is calculated as the lesser of:
 - I. the greatest whole number obtained by dividing the volume, measured in cubic metres, of the main buoyancy tubes (which for this purpose must not include the thwarts, if fitted) when inflated by 0.064; or
 - II. the greatest whole number obtained by dividing the inner horizontal cross-sectional area of the open reversible liferaft measured in square metres (which for this purpose may include the thwart or thwarts, if fitted) measured to the innermost edge of the buoyancy tubes by 0.248; or
 - III. the number of persons having an average mass of 80 kg, all wearing lifejackets, that can be seated inboard of the buoyancy tubes without interfering with the operation of any of the liferaft's equipment; and
 - (b) this Annex.
- (2) Where there is any conflict between the HSC Code specifications and this Annex, the **standards** in this Annex will apply.

E3 **STOWAGE**

- (1) **Open reversible liferafts Must be stowed in accordance with clause 4.3. Additionally, their painters must comply with clause E3 (2).**

Painter system

- (2) The breaking strength of the painter system including its means of attachment to the open reversible liferaft shall be:
 - (a) 7.5 kN for open reversible liferafts accommodating up to 8 persons;
 - (b) 10.0 kN for open reversible liferafts accommodating 9 to 30 persons; and
 - (c) 15.0 kN for open reversible liferafts accommodating more than 30 persons.

E4 **MARKING**

Product information

(from HSC Code Annex 11 5)

- (1) The open reversible liferafts must be marked with:
 - (a) Makers name or trademark;
 - (b) Serial number;
 - (c) Date of manufacture;
 - (d) Name and place of service station where it was last serviced; and
 - (e) Number of persons it is permitted to accommodate on the top of each buoyancy tube, in characters not less than 100mm in height and of a contrasting colour to that of the tube.

Parent vessel identification

- (2) In addition to the requirements for marking contained in E4 (1), a liferaft must be legibly marked in contrasting colours in such a form that it can be changed at any time without opening the container with either:
 - (a) the parent vessel's identification; or
 - (b) the HexID or unique identification number (UIN) of the EPIRB that is fitted in the liferaft; or
 - (c) other appropriate identification to facilitate rapid identification of the parent vessel to which the liferaft was fitted.

E5 SERVICING

Open reversible liferafts must be serviced in accordance with Chapter 6.

ANNEX F **STANDARDS FOR BUOYANT APPLIANCES (EXCLUDING LIFEBOUYS)**

F1 Scope

- (1) This Annex provides standards for the design, construction, and launching of buoyant appliances. It forms a normative (mandatory) part of this document.
- (2) Buoyant appliances that are not lifebuoys must comply with clauses F2 to F4 below.
- (3) Buoyant storage devices used as buoyant appliances must also comply with clause F5.

F2 Design and construction

General

- (1) A buoyant appliance must be designed and constructed to retain its shape and strength under all conditions of service and be equally stable whichever way up it is deployed.

Buoyant material

- (2) The buoyant material in a buoyant appliance must be constructed of inherently buoyant material; it shall not depend upon rushes, cork shavings or granulated cork, any other loose granulated material or any air compartment which depends on inflation for buoyancy.

EXAMPLE of a standard acceptable to the National Regulator is - s10, appendix N of the USL Code, which states:

"Density – minimum of 32kg/m³

Compressive strength – at 10% strain, minimum 235kPa

Closed cell content – minimum 92%

Water uptake – maximum of 400 cc/m³

Dimensional stability –

- temperature cycling: -15C to +70C
- 14 days under 100mm head of kerosene, toluene, xylene, or diesel.

Self-extinguishing to ASTM D1692 – burning rate maximum 10cm per minute

High resistance to kerosene, petrol, diesel and oils."

Outer covering and fittings

- (3) The buoyant material must be sealed in a waterproof fire-retardant outer covering of a highly visible colour, which is designed to protect the buoyant material from mechanical damage. The outer covering of the appliance and all exposed fittings must be rot-proof, corrosion resistant, resistant to fungal attack, and resistant to degradation from exposure to:
 - (a) petroleum products;
 - (b) weather and sea water; and
 - (c) ultraviolet light.

Resistance to impact

- (4) A buoyant appliance must be designed and manufactured to withstand, without incurring any damage or loss in performance, being dropped into the water from

a height of 6 m or from a height at which the appliance will be stowed relative to the vessel's water line in the vessel's lightest condition, whichever is the greater.

Grab-line

- (5) The buoyant appliance **must** incorporate a rot-proof buoyant grab-line in the form of a continuous length of rope looped around the appliance, and **must** comply with Figure F 1 and the following:
- (a) the diameter of the rope **must** not be less than 10 mm;
 - (b) the distance between the points of attachment of the loops to the appliance must not be greater than 450 mm or less than 300 mm between centres;
 - (c) each loop of buoyant line must have a depth of not less than 150 mm and not more than 200 mm;
 - (d) both the loops and their fastenings to the appliance must be of sufficient strength to enable the appliance to be lifted by a single loop without causing a decrease in the sag of any other loop;
 - (e) the end of each loop must be knotted, seized or otherwise secured at the ends of each loop so that breakage of the rope at one loop will not render all other loops unusable.

Painter

- (6) A buoyant appliance **must** be fitted with a painter that must be of sufficient length to allow deployment of the buoyant appliance from its maximum possible height and have a breaking strength of 10 kN.

Painter attachment point

- (7) A buoyant appliance **must** incorporate a strong point to which the painter may be attached of sufficient strength to prevent the appliance from drifting away from the vessel after deployment.

Capacity

- (8) The number of persons that the appliance is able to support **must** be the lesser of the total number of grab-line loops around the appliance, or the value obtained from the following formula:

$$N = 70 \left(V - \frac{W}{1000} \right)$$

where

N = number of persons, rounded down to the nearest whole number

V = volume of appliance, in cubic metres

W = mass of appliance, in kilograms

F3 Launching

Unless a launching device is provided, the buoyant appliance **must** be capable of being launched by 2 persons. Where the appliance exceeds 136 kg, handles or

rings **must** be fitted to facilitate launching by hand. Such handles or rings **must** be fitted in addition to the grab-lines specified in F2 (5).

F4 Marking

Persons capacity

- (1) The persons capacity of buoyant appliances **must** be legibly and permanently marked on both of the largest faces of the buoyant appliances in figures not less than 75 mm in height.

Retro-reflective tapes

- (2) Retro-reflective tapes **must** comply with Annex K and Figure F1.
- (3) Unless otherwise specified, each strip of tape **must** be not less than 300 mm long and not less than 50 mm wide. Alignment of tapes **must** be such that the distance between the centre of the tape and the centre of the next tape in line **must** not exceed 500 mm.

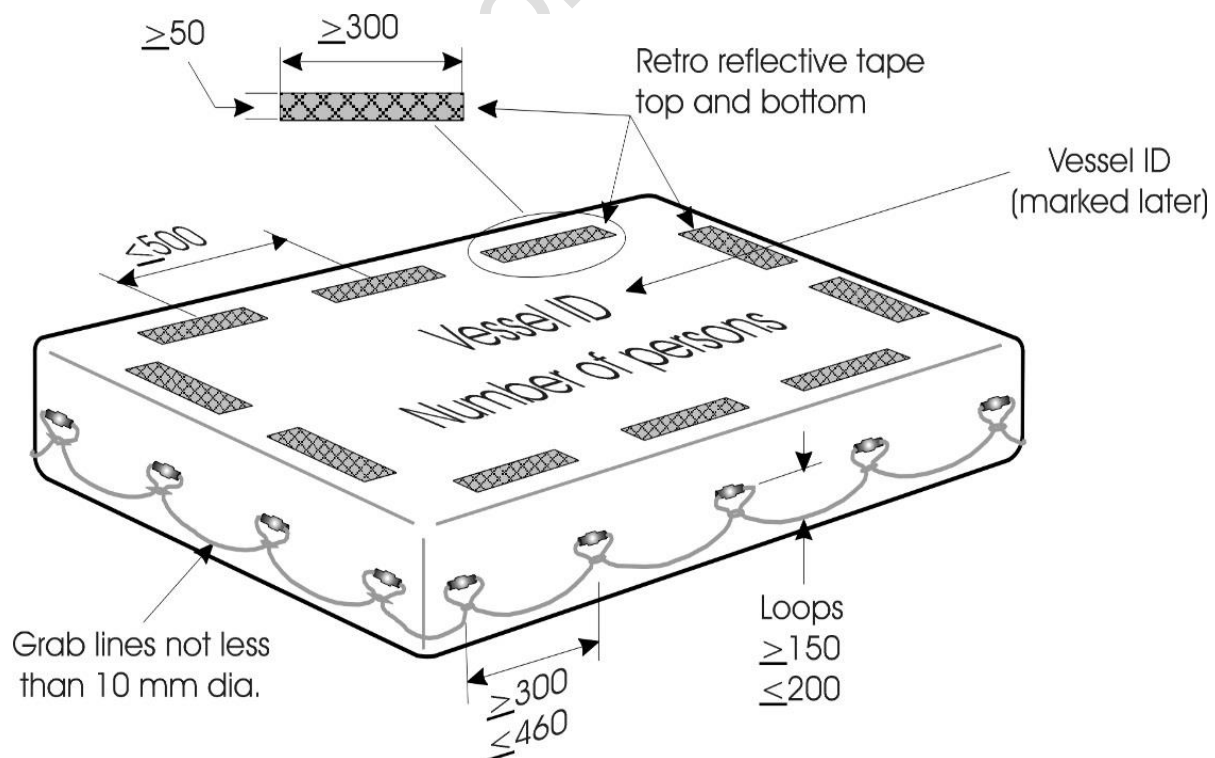
Location of tapes

- (4) The top and bottom of a buoyant appliance **must** be fitted with strips of retro-reflective tape spaced around the perimeter of the appliance so that the distance between the centres of consecutive strips is not greater than 500 mm.

Parent vessel identification

- (5) Buoyant appliances **must** be marked with the parent vessel's identification on both of the largest faces of the appliance in legible and permanently marked figures not less than 75 mm in height in a contrasting colour.

Figure F 1 Buoyant appliance marking and grab-lines



F5 Buoyant storage devices used as buoyant appliances

- (1) This clause applies to the use of buoyant storage devices designed for the dual purposes of storing of safety equipment such as pyrotechnic and smoke signals, as well as being used as a buoyant appliance for the purpose of tables 2, 3 and 4.
- (2) The buoyant storage device must be assessed and verified as meeting the criteria for buoyant appliances in clause 4.5 and Annex F2 to F4 by:
 - (a) a recognised testing and listing organisation in Australia; or
 - (b) a JAS-ANZ accredited product certification body; or
 - (c) a recognised organisation.
- (3) For the purpose of determining capacity in accordance with clause F2(8), the calculation must be undertaken assuming that any floodable parts of the device, including those parts that may not normally flood whilst the device is closed, are totally flooded.

ANNEX G **STANDARDS** FOR HYDROSTATIC RELEASE UNITS

G1 **Design and construction**

The hydrostatic release unit **must**:

- (a) be constructed of compatible materials so as to prevent malfunction of the unit. Galvanizing or other forms of metallic coating on parts of hydrostatic release unit is not acceptable;
- (b) automatically release the liferaft at a depth of not more than 4 m;
- (c) have drains to prevent the accumulation of water in the hydrostatic release chamber when the unit is in its normal position;
- (d) be so constructed as to prevent release when seas wash over the unit;
- (e) be permanently and legibly marked on its exterior with its type and serial number;
- (f) be permanently and legibly marked on the unit or identification plate securely attached to the unit stating the date of manufacture, type and serial number and whether or not the unit is suitable for use with a liferaft with a capacity of more than 25 persons;
- (g) be such that each part connected to the painter system has a strength of not less than that required for the painter;
- (h) indicate in a way that cannot be removed the date by which it is to be replaced.

G2 **Weak links**

(aligns with SOLAS Ch III, Reg 38, 6.2)

If a weak link is used in a float-free arrangement, it must:

- (a) not be broken by the force required to pull the painter from the liferaft container;
- (b) if applicable, be of sufficient strength to permit the inflation of the liferaft; and
- (c) break under a strain of 2.2 ± 0.4 kN.

ANNEX H STANDARDS FOR FIRST AID AND MEDICAL SUPPLIES

H1 Scope

- (1) This annex provides minimum standards for first aid, medical supplies and equipment to be carried on vessels.
- (2) It forms a normative (mandatory) part of this document.

H2 General

- (1) A vessel must carry first aid and medical supplies in accordance with the following as a minimum:
 - (a) for vessels operating in B waters, this annex;
 - (b) for vessels operating in C, D or E waters:
 - (i) this annex; or
 - (ii) the national code of practice for first aid in workplaces.

Equipment and supplies to be carried

- (2) Vessels will comply with this Annex if they carry as a minimum the medical supplies specified in tables H.3, H.4 and/or table H.5, as applicable to the vessel class and operational area in column 4 of Table H.2.

NOTE 1: The items specified as minimum in this Annex are based on professional medical advice as well as experience of reasonably foreseeable range of injuries and medical conditions for single incident events involving 1 or 2 persons.

NOTE 2: The scales assume that medical assistance will be achieved within the time periods specified in table H1.

NOTE 3: If unsure of the nature or seriousness of an illness or injury, TeleMedical Advice should be sought and, if necessary, medical evacuation should be initiated. Telemedical Advice Services for vessels in the Australian Search and Rescue Region are available through the ARCC in Canberra on 1800 641 792 or HF DSC MMSI 005030001.

Medical supplies advice

- (3) Owners and operators of vessels operating in B waters must seek advice of medical practitioners or pharmacists regarding any additional first aid or medical supplies required on their vessel, in addition to the minimum listed in this annex.
- (4) Factors that must be considered when determining additional first aid or medical supplies include the nature of the vessel's work, types of hazards present, the vessel size, operational area, availability of outside assistance at any time on a voyage, and the number of people on board.

NOTE: State or territory Workplace Health and Safety (WHS) legislation and Codes of Practice also apply to domestic commercial vessels. Compliance with this annex does not guarantee compliance with WHS requirements. Owners and operators are advised to contact local state or territory WHS regulators to confirm their requirements.

Table H.1 Outside medical assistance times

Time till outside medical assistance can arrive	Scale
2 hours	Scale G, or F
6 hours	Scale F
12 hours	Scales E or D, and at least 1 scale F first aid kit

Table H.2 Scales applicable to vessel class and operational area

Class	Vessel use and operational area	Extra specification	Scale and table
1	Passenger Vessel		
1B	Offshore Operations (up to 200 nm)	berthed passengers	Scale F – table H.3 and Scale D – Tables H.4 and H.5
		unberthed	Scale F – table H.3 and Scale D – Tables H.4 and H.5
1C	Restricted Offshore Operations (up to 30 nm)	berthed passengers	Scale F – table H.3 and Scale E – Tables H.4 and H.5
		unberthed	Scale F – Table H.3
1D	Partially Smooth Water Operations (areas defined by jurisdictions)	berthed passengers	Scale F – Table H.3
		unberthed	Scale G – table H.3 or Scale F – Table H.3
1E	Smooth Water Operations (areas defined by jurisdictions)	berthed passengers	Scale F – Table H.3
		unberthed	Scale G – Table H.3
2	Non-Passenger Vessel		

Class	Vessel use and operational area	Extra specification	Scale and table
2B	Offshore Operations (up to 200 nm)	Nil	Scale F – table H.3 and Scale E – Tables H.4 and H.5
2C	Restricted Offshore Operations (up to 30 nm)	Nil	Scale F – Table H.3
2D	Partially Smooth Water Operations (areas defined by jurisdictions)	Nil	Scale G or scale F – Table H.3
2E	Smooth Water Operations (areas defined by jurisdictions)	Nil	Scale G or scale F – Table H.3
3	Fishing Vessel		
3B	Offshore Operations (up to 200 nm)	Nil	Scale F – table H.3 and Scale E – Tables H.4 and H.5
3C	Restricted Offshore Operations (up to 30 nm)	Nil	Scale F – Table H.3
3D	Partially Smooth Water Operations (areas defined by jurisdictions)	Nil	Scale G or scale F – Table H.3
3E	Smooth Water Operations (areas defined by jurisdictions)	Nil	Scale G or scale F – Table H.3

H3 Carriage of Hazardous chemicals and dangerous goods

- (1) Vessels carrying hazardous chemicals, or dangerous goods must carry any additional first aid or medical supplies specified in the first-aid measures section of the safety data sheet (SDS) for those chemicals or goods.
- (2) A chemical or mixture is to be considered as hazardous or dangerous if it is classified as such in the SDS for the product.

H4 Expiry dates

First aid and medical supplies carried on board must be within the expiry date specified on the product, if one is specified.

NOTE: Expired or surplus medications and controlled drugs should be returned to a pharmacist for appropriate disposal.

H5 Replacement of **medical supplies**

- (1) Antibiotics **must** be kept in original packages or patient courses.
- (2) Other products, such as analgesics and creams in opened packages containing at least 50 per cent of the original quantity, do not need to be replaced if the remaining product is uncontaminated and within expiry date.

NOTE: This is to avoid unwarranted replacement after a few tablets or capsules are consumed.

H6 Labelling and packaging

- (1) Medication **must be kept in its** original, sealed **packaging provided**.
- (2) All products **must** have instructions and directions for use in English and clearly state the adult dose **if** applicable.

NOTE: The medical inventories for vessels are designed for adult passengers and crew. If a child requires treatment, **TeleMedical** advice should be sought.

H7 **Controlled drugs register**

All vessels **that carry controlled drugs must carry a** Controlled Drugs Register.

NOTE 1: Controlled drugs are marked with “#” in the medical supplies’ scales.

NOTE 2: Controlled drugs registers are used to record the supply, use, disposal, loss or theft of the controlled drugs on board. These should be separate to the formal vessel logbook.

H8 First aid kit

Location

- (1) The first aid kit **must** be located adjacent to the Master’s accommodation, or in the wheelhouse. In small partly open vessels, the first aid kit **must** be stowed somewhere protected from the elements.

Construction and provisions

- (2) The first aid kit **must** be stored in a weathertight, portable case of a non-corrosive material of suitable strength and size to accommodate the first aid stores.
- (3) The case should be fastened securely with quick-release closures.

Labelling and Identification

- (4) The first aid kit case **must** be labelled FIRST AID on the lid and at least two (2) sides for quick identification. The storage location of the first aid kit must be clearly identified with an appropriate sign or sticker.
- (5) The contents **must** be listed with a brief instruction for use for each item listed, along with expiry dates and the last check date. The list must be stowed within or adjacent to the first aid kit.

Maintenance

- (6) First aid kits **must** be cleaned and checked every three (3) months.

H9 Medical cabinet

- (1) Vessels **required by table H.1 to carry** scales D and E **medical supplies, must** be provided with a medical cabinet of suitable size, design and construction for storing medical supplies.

NOTE: Storage of splints, neck collars, stretchers, etc may be separate from the medical cabinet; however, storage of these items should be readily accessible to the crew.

-
- (2) Advice provided by the dispensing pharmacist regarding appropriate storage must be followed, including any requirements for refrigeration.

NOTE: Scale D and E medical supplies include scheduled drugs (s4 'prescription drugs', and s8 'controlled drugs'). The storage and security of scheduled drugs on board may be subject to local state and territory legislation.

Location

- (3) The medical cabinet **must** be located either:
- in a separate compartment adjacent to the hospital accommodation;
 - where hospital accommodation is not provided, adjacent to the vessel's officers' accommodation; or
 - in a dry and cool space accessible to the Master and a nominated crew member.

Construction and illumination

- (4) The medical cabinet **must** be provided with:
- an outer door, fitted with an efficient lock;
 - a separate independently locked storage area, which may be an inner cupboard of the medical cabinet, for storing scheduled drugs. The key for each independently locked storage area to be kept in the custody of the Master or nominated responsible officer;
 - a dispensing counter or table, with an impervious surface, which may be a shelf in the medical cabinet;
 - suitable storage space for medicines and measuring devices, which facilitate identification of various items; and
 - illumination by electric light from inside or immediately outside the cabinet.

NOTE: Storage should be secure enough to prevent misuse, while ensuring that prompt access to medical supplies is available when they are required.

Labelling and identification

- (5) The medical cabinet **must** be clearly identified on the outer door with an appropriate sign or sticker.
- (6) The contents of the medical cabinet **must** be listed with a brief instruction for use for each item listed, along with expiry dates and the last check date. The list **must** be stowed within or adjacent to the medical cabinet.

Maintenance

- (7) Medical cabinets **must** be cleaned and checked every three (3) months.

Table H.3 Scale G and F First Aid Kits

Description	Quantity		Comments
	Scale G	Scale F	
Bandage, conforming 5 cm	1	2	secure dressing and support injured parts
Bandage, conforming 10 cm	1	2	secure dressing and support injured parts
Bandage, heavy crepe 7.5 cm	2	2	support bandage
Bandage, heavy crepe 10 cm	-	1	support bandage, wide
Bandage, triangular	4	4	sling
Dressing, combine 10 x 10 cm, sterile	3	3	bleeding control
Dressing, combine 10 x 20 cm, sterile	2	5	bleeding control, large
Dressing, non-adherent (10 x 10 cm or similar)	5	10	wound cover
Dressing, hydroactive (10 x 10 cm or similar)	1	2	blisters, burns and minor exudate wounds
Wound dressing, combination, large	2	3	major wounds
Wound dressing, combination, small	2	2	major wounds
Adhesive roll non-woven fabric 5 cm x 10 m	1	1	securing dressings
Dressings, elastic fabric strips	50	50	minor wound cover
Gauze swabs, sterile (single use pkt of 3)	3	9	cleansing/dressing wound
Eye pad, sterile	2	4	eye cover
Wound closure strips, wide, 6 x 38 mm	1	3	securing wound sides
Tape surgical waterproof 2.5 cm x 5 m	1	1	secure dressing
Tape surgical waterproof 5 cm x 5 m	1	1	secure dressing
Towels, disposable, pkt of 2	2	3	
Plastic bag set (3 asst L, M and S)	1	2	amputated parts
Plastic bag	2	2	disposal of soiled dressings
Gloves, disposable, large	10	10	
Safety pins, stainless, assorted pkt of 12	1	1	
Blanket, emergency thermal	1	1	hypothermia and shock
Ice pack, instant	1	1	
Resuscitation mask, disposable	1	1	
Resuscitation mask, pocket	-	1	

Description	Quantity		Comments
	Scale G	Scale F	
Splinter probes, sterile, disposable	5	10	
Splinter forceps, 12.5 cm	1	1	
Shears, stainless, 19 cm minimum	1	1	
Scalpel, disposable	-	2	
Splint malleable, universal	1	2	
Normal saline, sterile 30 ml polyamp	6	10	eye irrigation / wound cleaning
Povidone iodine swabs (single use)	10	20	antiseptic
Anaesthetic + antiseptic cream 30 g	1	1	
Hydrocortisone 0.5% cream 30 g	-	1	rashes & bites
Paracetamol 500 mg tabs or caps	20	2 x 20	mild pain relief
Paracetamol 500 mg / Codeine 8 mg *, or Paracetamol or ibuprofen, or the two products in combination	-	20	moderate pain relief
	-	20	
Ibuprofen 200 mg tablets	-	24	anti-inflammatory
Hyoscine hydrobromide 0.3mg tablets	10	10	seasickness
Loperimide 2mg tablets	16	16	diarrhoea
Loratadine HCl 10 mg or Fexofenadine HCl 120 mg tablets	-	10	antihistamine (non-sedating)
Antacid tablets	12	50	
CPR instruction chart or card	1	1	
Australian First Aid Book	1	1	

Key to table H.3:

* = Prescription drug requiring secure storage that complies with state or territory requirements.

Table H.4 Scale E and D Medication

Description	Quantity		Comments
	Scale E	Scale D	
Adrenaline 1-1000 1ml ampoules	-	5	sudden allergic reaction
Antibiotic ointment * 15g or 20g	1	1	infected wound
Amoxicillin 500mg caps *	-	20	oral antibiotic
Doxycycline 100mg * caps or tabs	-	21	oral antibiotic
Benzyl penicillin 600mg with WFI 2ml *	-	5	antibiotic injection
Chloramphenicol Eye Ointment 4g *	1	1	eye antibiotic
Glyceryl trinitrate 400mcg spray	1	1	angina/ heart pain
Morphine 10mg/ml ampoules * #	-	5	severe pain only with medical advice
Naloxone 0.4mg/ml minijet *	-	5	morphine antagonist
Paracetamol 500mg/Codeine 30mg tabs * Or Paracetamol 500mg/Codeine Phosphate 15mg tablets *, Or Paracetamol or ibuprofen, or the two products in combination.	20 20 20	20 20 20	moderate-severe pain, also cough suppression moderate pain relief
Prochlorperazine 5mg tablet *	25	25	nausea, giddiness
Prochlorperazine 12.5mg/ml ampoules *	-	10	severe seasickness
Prednisolone 5mg tablet *	-	20	only with medical advice
Salbutamol inhaler	1	1	asthma attack
Sodium chloride and glucose or dextrose compound, powder sachets, 4.9g approx.	10	20	rehydration

Key to table H.4:

* = Prescription drug requiring secure storage that complies with state or territory requirements.

= Controlled drug requiring locked storage that complies with state or territory requirements, and its use recorded in controlled drugs register.

Table H.5 Scale E and D Medical Equipment

Description	Quantity		Comments
	Scale E	Scale D	
Scalpel, sterile, disposable	3	5	
Scissors, stainless, blunt/sharp 12.5 cm	-	1	
Splint set, vacuum or air inflation	1	1	
Neck collar, multi-size, rigid, fully adjustable	1	2	
Syringe with needle, sterile disposable 1 ml	-	5	
Syringe with needle, sterile, disposable 2 ml or 3 ml, 23 G or 25 G	-	5	
Isopropyl alcohol swabs	-	10	
BVM air resuscitator	1	1	
Defibrillator	Optional	1	
Stretcher for helicopter evacuation / shipboard use	Optional	1	
First Aid Oxygen Unit	Optional	1	
Ship Captain's Medical Guide, current edition	-	1	
Controlled Drug Register	-	1	

ANNEX I TRANSITIONAL ARRANGEMENTS FOR EXISTING VESSELS TO COMPLY WITH C7A

I1 Application

- (1) This Annex applies to existing vessels and provides transition periods for certain items of safety equipment.

NOTE 1: The purpose of the transitional arrangements contained in this Annex I is to ensure that the safety of existing vessels is aligned to an acceptable level with that of new vessels.

I2 General provisions

- (1) Existing vessels must meet all the deemed-to-satisfy solutions in Chapters 3 to 6 and Annexes A to H and J to K that apply to the vessel, except where:
- (a) a transitional period for compliance to a deemed-to-satisfy solution is specified in Table I.1, in which case the deemed-to-satisfy solution does not apply to the vessel until the time specified in Table I.1; or
 - (b) the deemed-to-satisfy solution is modified in Table I.1, in which case the modified deemed-to-satisfy solution applies; or
 - (c) Table I.1 states that the deemed-to-satisfy solution does not apply.

NOTE: I2 (1) requires existing vessels to comply with the standards for safety equipment specified in Chapter 3, the installation and marking requirements of Chapter 4, the type and quantity requirements of Chapter 5 and the servicing requirements of Chapter 6. The only exceptions to this are specified in Table I.1.

- (2) An existing vessel may elect to comply with the deemed-to-safety solution contained in Chapters 3 to 6 or Annexes A to H and J to K that applies to the vessel, even where compliance is not required under Table I.1.

I3 Equivalent standards to apply

If, under this Annex I, an existing vessel is not required to comply with a deemed to satisfy solution contained in Chapters 3 to 6 or any Annexes of this Subsection, either for a transitional period or at all, the equivalent content of either of the following standards applies for that period:

- (a) the USL Code Section 10 or 13; or
- (b) the standard that applied to the vessel immediately prior to the commencement of this Annex I.

NOTE: Annex I commenced on 1 January 2018.

Table I.1 Transitional Arrangements and timeframes for Existing Vessels

Clause number	Clause title	Summary of deemed to satisfy solution	Transitional arrangement and timeframes for existing vessels to comply
Chapter 3 – Safety Equipment design and construction			
3.1 (2)	Assessment and verification	Safety equipment must be assessed and verified as meeting the applicable standards using one or more of the methods mentioned in 3.2 (2).	Compliance required as equipment is acquired or replaced after 1 July 2018 .
Table 1	Lifebuoys	Lifebuoys must meet the requirements of table 1, including being a highly visible colour over 100% of their surface.	Compliance is required within 2 years from date of commencement of this edition, or when the lifebuoy is replaced, whichever occurs first.
Chapter 4 – Installation of safety equipment			
4.1 General			
4.1 (6)	Marine evacuation systems	Where fitted, marine evacuation systems must comply with the standard specified in table 1 and be stowed in accordance with SOLAS Ch III Regulation 15, which can be found in Annex J .	Compliance required where an existing marine evacuation system is replaced after 1 July 2018 .
4.2 Lifeboats and rescue boats			
4.2 (1)	Marking - Lifeboats and rescue boats	Lifeboats and rescue boats must be marked in accordance with 4.2 (1) .	Compliance required when the parent vessel identification marking is replaced, or the lifeboat / rescue boat is replaced, whichever occurs first after 1 July 2018 .
4.2 (4, 5, 6)	Launching and retrieval	Launching and retrieval of lifeboats and rescue boats must be in accordance with 4.2 (4, 5 6) (including the assumed person weights and minimum factors of safety).	Compliance required on replacement of the lifeboat or rescue boat after 1 July 2018 .
4.2 (7)	Illumination	Sufficient illumination must be provided in	Existing Class 1 vessels must comply with 4.2 (7) .

Clause number	Clause title	Summary of deemed to satisfy solution	Transitional arrangement and timeframes for existing vessels to comply
		accordance with NSCV C5B.	Other existing vessels must comply with the equivalent USL Code requirements.
4.3 Liferafts			
4.3 (1), (2)	Stowage of liferafts	Liferafts must be stowed in accordance with 4.3 (1) and (2).	Compliance required from 1 January 2023.
4.3 (3)	Illumination	Sufficient illumination must be provided in accordance with NSCV C5B.	Existing Class 1 vessels must comply with 4.3(3). Other existing vessels must comply with the equivalent USL Code requirements.
4.4 Dinghies			
4.4 (2, 3)	Launching	Means must be provided of launching dinghies in accordance with 4.4 (2, 3)	Compliance required on replacement of dinghy after 1 July 2018.
4.5 Buoyant appliances (excluding lifebuoys)			
4.5 (2)	Illumination	Sufficient illumination in accordance with NSCV C5B must be provided for the buoyant appliance's stowage areas and the areas of water into which they will be deployed.	The areas of water into which the buoyant appliances will be deployed is not required to be illuminated on existing vessels.
4.6 Lifebuoys			
4.6 (1)	Marking – Lifebuoys	Lifebuoys must be marked in accordance with 4.6 (1)	Compliance required when the parent vessel identification marking is replaced, or the lifebuoy is replaced, whichever occurs first after 1 July 2018.
4.7 Lifejackets			
4.7 (1)	Parent vessel marking	Lifejackets must be marked in accordance with 4.7 (1)	Compliance required when the parent vessel identification marking is replaced, or the lifejacket is replaced, whichever occurs first after 1 July 2018.

Clause number	Clause title	Summary of deemed to satisfy solution	Transitional arrangement and timeframes for existing vessels to comply
Chapter 5 – Type and quantity of safety equipment			
5.1 Safety equipment to be carried			
Tables 2, 3 and 4	Liferafts and rescue boats	<p>Specified vessels are required to carry a liferaft or rescue boat.</p> <p>A dinghy is not permitted to be used as an alternative to a liferaft</p>	<p>A vessel that was not required to carry a liferaft or rescue boat prior to the application of this Subsection to the vessel, must carry the liferafts and/or rescue boats required under Tables 2, 3 and 4 within 2 years from date of commencement of this edition.</p> <p>NOTE 1: A vessel may choose to meet the alternative level flotation or lifejacket wear options that apply to the vessel under Table 2, 3 or 4.</p> <p>However, existing Class 3C vessels <25m may continue to use a dinghy as an alternative to a liferaft if the dinghy meets the standards of Annex C. If the dinghy fails to meet the standards in Annex C, it must be replaced with a liferaft as per table 4.</p>
Tables 2, 3 and 4	Lifejackets	A vessel must carry the kind of lifejackets mentioned in tables 2, 3 or 4	Compliance required within 2 years from date of commencement of this edition.
Tables 2, 3 and 4	Distress signals	A vessel must carry the kind and quantity of distress signals mentioned in tables 2, 3 or 4	Does not apply to vessels operating in operational area E except vessels in remote enclosed waters. Vessels operating in E waters, except those remote enclosed waters, can continue to comply with the USL Code for distress signals, instead of the NSCV – see clause 13.
Chapter 6 – Servicing of safety equipment			

Clause number	Clause title	Summary of deemed to satisfy solution	Transitional arrangement and timeframes for existing vessels to comply
6.1 to 6.8	Servicing of safety equipment	Safety equipment must be serviced in accordance with clauses 6.1 to 6.8.	Compliance required from the first service date of each item of safety equipment after 1 January 2018 .
Annex B - Standards for non-SOLAS rescue boats			
B2 (2)	Colour	A non-SOLAS rescue boat must be of a highly visible colour.	Compliance is required when a non-SOLAS rescue boat is acquired or replaced. NOTE: This means that a non-SOLAS rescue boat is not required to be replaced only because it does not meet the colour requirements of Annex B. However, the non-SOLAS rescue boat on the vessel must meet all other requirements of Annex B or it must be replaced with a compliant non-SOLAS rescue boat. See clause I2(1).
Annex C - Standards for dinghies			
C5 (3)	Marking - Parent vessel identification	Dinghies must be marked in accordance with C5 (3)	Compliance required when the parent vessel identification marking is replaced, or the dinghy is replaced, whichever occurs first after 1 July 2018 .
Annex D – Standards for coastal liferafts			
D5 (3)	Parent vessel identification	Liferafts must be marked in accordance with D5 (3)	Compliance required when the vessel's identification marking is replaced, or the liferaft is replaced, whichever occurs first after 1 July 2018 .
Annex E - Standards for open reversible liferafts			
E3 Stowage			
E3 (1) and (2)	Stowage and painter system	Open reversible liferafts must be stowed in accordance with E3.	Compliance required within 2 years from date of commencement of this edition.
Annex F - Standards for buoyant appliances (excluding lifebuoys)			
F4 Marking			

Clause number	Clause title	Summary of deemed to satisfy solution	Transitional arrangement and timeframes for existing vessels to comply
F4 (5)	Parent vessel identification	Buoyant appliances must be marked in accordance with F4 (5).	Compliance required when the parent vessel identification marking is replaced, or the buoyant appliance is replaced, whichever occurs first after 1 July 2018 .

External consultation draft

ANNEX J SOLAS CHAPTER III REQUIREMENTS

Regulation 13 Stowage of survival craft

- 1** Each survival craft shall be stowed:
 - .1** so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching station;
 - .2** as near the water surface as is safe and practicable and, in the case of a survival craft other than a liferaft intended for throw over board launching, in such a position that the survival craft in the embarkation position is not less than 2 m above the waterline with the ship in the fully loaded condition under unfavourable conditions of trim of up to 10° and listed up to 20° either way, or to the angle at which the ship's weather deck edge becomes submerged, whichever is less;
 - .3** in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than 5 min;
 - .4** fully equipped as required by this chapter and the Code; and
 - .5** as far as practicable, in a secure and sheltered position and protected from damage by fire and explosion.
- 2** Lifeboats for lowering down the ship's side shall be stowed as far forward of the propeller as practicable. On cargo ships of 80 m in length and upwards but less than 120 m in length, each lifeboat shall be so stowed that the after end of the lifeboat is not less than the length of the lifeboat forward of the propeller. On cargo ships of 120 m in length and upwards and passenger ships of 80 m in length and upwards, each lifeboat shall be so stowed that the after end of the lifeboat is not less than 1.5 times the length of the lifeboat forward of the propeller. Where appropriate, the ship shall be so arranged that lifeboats, in their stowed positions, are protected from damage by heavy seas.
- 3** Lifeboats shall be stowed attached to launching appliances.
 - 4.1** Every liferaft shall be stowed with its painter permanently attached to the ship.
 - 4.2** Each liferaft or group of liferafts shall be stowed with a float-free arrangement (detailed below) so that each floats free and, if inflatable, inflates automatically when the ship sinks.
 - 4.3** Liferafts shall be so stowed as to permit manual release of one raft or container at a time from their securing arrangements.
- 5** Davit-launched liferafts shall be stowed within reach of the lifting hooks, unless some means of transfer is provided which is not rendered inoperable within the limits of trim and list prescribed in paragraph 1.2 or by ship motion or power failure.
- 6** Liferafts intended for throw-overboard launching shall be so stowed as to be readily transferable for launching on either side of the ship unless liferafts, of the aggregate capacity required by regulation 31.1 to be capable of being launched on either side, are stowed on each side of the ship.

Regulation 14 Stowage of rescue boats

Rescue boats shall be stowed:

- .1 in a state of continuous readiness for launching in not more than 5 min, and if the inflated type, in a fully inflated condition at all times;
- .2 in a position suitable for launching and recovery;
- .3 so that neither the rescue boat nor its stowage arrangements will interfere with the operation of any survival craft at any other launching station; and
- .4 if it is also a lifeboat, in compliance with the requirements for survival craft above.

Regulation 15 Marine Evacuation systems stowage

- 1 The ship's side shall not have any openings between the embarkation station of the marine evacuation system and the waterline in the lightest seagoing condition and means shall be provided to protect the system from any projections.
- 2 Marine evacuation systems shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging positions of the hull and so that, as far as practicable, the system can be launched down the straight side of the ship.
- 3 Each marine evacuation system shall be stowed so that neither the passage nor platform nor its stowage or operational arrangements will interfere with the operation of any other life-saving appliance at any other launching station.
- 4 Where appropriate, the ship shall be so arranged that the marine evacuation systems in their stowed positions are protected from damage by heavy seas.

Regulation 16 survival craft launching and recovery arrangements

- 1 Unless expressly provided otherwise, launching and embarkation appliances complying with the requirements of section 6.1 of the Code shall be provided for all survival craft except those which are:
 - .1 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which have a mass of not more than 185 kg; or
 - .2 boarded from a position on deck less than 4.5 m above the waterline in the lightest seagoing condition and which are stowed for launching directly from the stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way; or
 - .3 carried in excess of the survival craft for 200% of the total number of persons on board the ship and which have a mass of not more than 185 kg; or
 - .4 carried in excess of the survival craft for 200% of the total number of persons on board the ship, are stowed for launching directly from the

stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way, or

- 5 provided for use in conjunction with a marine evacuation system, complying with the requirements of section 6.2 of the Code and stowed for launching directly from the stowed position under unfavourable conditions of trim of up to 10° and list of up to 20° either way.
- 2 Each lifeboat shall be provided with an appliance which is capable of launching and recovering the lifeboat. In addition there shall be provision for hanging-off the lifeboat to free the release gear for maintenance.
- 3 Launching and recovery arrangements shall be such that the appliance operator on the ship is able to observe the survival craft at all times during launching and for lifeboats during recovery.
- 4 Only one type of release mechanism shall be used for similar survival craft carried on board the ship.
- 5 Preparation and handling of survival craft at any one launching station shall not interfere with the prompt preparation and handling of any other survival craft or rescue boat at any other station.
- 6 Falls, where used, shall be long enough for the survival craft to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of trim of up to 10° and list of up to 20° either way.
- 7 During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched shall be adequately illuminated by lighting supplied from the emergency source of electrical power required by regulation II-1/42 or II-1/43, as appropriate.
- 8 Means shall be available to prevent any discharge of water on to survival craft during abandonment.
- 9 If there is a danger of the survival craft being damaged by the ship's stabilizer wings, means shall be available, powered by an emergency source of energy, to bring the stabilizer wings inboard ; indicators operated by an emergency source of energy shall be available on the navigating bridge to show the position of the stabilizer wings.
- 10 If partially enclosed lifeboats complying with the requirements of section 4.5 of the Code are carried, a davit span shall be provided, fitted with not less than two lifelines of sufficient length to reach the water with the ship in its lightest seagoing condition, under unfavourable conditions of trim of up to 10° and list of up to 20° either way.

Regulation 17 Rescue boat embarkation, launching and recovery arrangements

- 1 The rescue boat embarkation and launching arrangements shall be such that the rescue boat can be boarded and launched in the shortest possible time.
- 2 If the rescue boat is one of the ship's survival craft, the embarkation arrangements and launching station shall comply with the requirements of regulations 11 and 12.
- 3 Launching arrangements shall comply with the requirements of regulation 16. However, all rescue boats shall be capable of being launched, where necessary

utilizing painters, with the ship making headway at speeds up to 5 knots in calm water.

- 4 Recovery time of the rescue boat shall be not more than 5 min in moderate sea conditions when loaded with its full complement of persons and equipment. If the rescue boat is also a lifeboat, this recovery time shall be possible when loaded with its lifeboat equipment and the approved rescue boat complement of at least six persons.
- 5 Rescue boat embarkation and recovery arrangements shall allow for safe and efficient handling of a stretcher case. Foul weather recovery strops shall be provided for safety if heavy fall blocks constitute a danger.

Regulation 31 Survival craft and rescue boats

1 Survival craft

1.1 Cargo ships shall carry:

- .1 one or more totally enclosed lifeboats complying with the requirements of section 4.6 of the Code of such aggregate capacity on each side of the ship as will accommodate the total number of persons on board; and
- .2 in addition, one or more inflatable or rigid liferafts, complying with the requirements of section 4.2 or 4.3 of the Code, of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, and of such aggregate capacity as will accommodate the total number of persons on board. If the liferaft or liferafts are not of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, the total capacity available on each side shall be sufficient to accommodate the total number of persons on board.

1.2 In lieu of meeting the requirements of paragraph 1.1, cargo ships may carry:

- .1 one or more free-fall lifeboats, complying with the requirements of section 4.7 of the Code, capable of being free-fall launched over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board; and
- .2 in addition, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code, on each side of the ship, of such aggregate capacity as will accommodate the total number of persons on board. The liferafts on at least one side of the ship shall be served by launching appliances.

1.3 In lieu of meeting the requirements of paragraph 1.1 or 1.2, cargo ships of less than 85 m in length other than oil tankers, chemical tankers and gas carriers, may comply with the following:

- .1 they shall carry on each side of the ship, one or more inflatable or rigid liferafts complying with the requirements of section 4.2 or 4.3 of the Code and of such aggregate capacity as will accommodate the total number of persons on board;
- .2 unless the liferafts required by paragraph 1.3.1 are of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at

a single open deck level, additional liferafts shall be provided so that the total capacity available on each side will accommodate 150% of the total number of persons on board;

.3 if the rescue boat required by paragraph 2 is also a totally enclosed lifeboat complying with the requirements of section 4.6 of the Code, it may be included in the aggregate capacity required by paragraph 1.3.1, provided that the total capacity available on either side of the ship is at least 150% of the total number of persons on board; and

.4 in the event of any one survival craft being lost or rendered unserviceable, there shall be sufficient survival craft available for use on each side, including any which are of a mass of less than 185 kg and stowed in a position providing for easy side-to-side transfer at a single open deck level, to accommodate the total number of persons on board.

1.4 Cargo ships where the horizontal distance from the extreme end of the stem or stern of the ship to the nearest end of the closest survival craft is more than 100 m shall carry, in addition to the liferafts required by paragraphs 1.1.2 and 1.2.2, a liferaft stowed as far forward of aft, or one as far forward and another as far aft, as is reasonable and practicable. Such liferaft or liferafts may be securely fastened so as to permit manual release and need not be of the type which can be launched from an approved launching device.

1.5 With the exception of the survival craft referred to in regulation 16.1.1, all survival craft required to provide for abandonment by the total number of persons on board shall be capable of being launched with their full complement of persons and equipment within a period of 10 min from the time the abandon ship signal is given.

ANNEX K GUIDELINES CONCERNING THE USE AND FITTING OF RETRO-REFLECTIVE MATERIAL ON LIFE-SAVING APPLIANCES

(from IMO Resolution A.658(16))

K1 Lifeboats

- (1) Retro-reflective tapes should be fitted on top of the gunwale as well as on the outside of the boat as near the gunwale as possible. The tapes should be sufficiently wide and long (approximately 5 x 30 cm) and should be spaced at suitable intervals (approximately 50 cm).
- (2) If a canopy is fitted it should not be allowed to obscure the tapes fitted on the outside of the boat and the top of the canopy should be fitted with retro-reflective tapes similar to those mentioned above but shaped in the form of a cross and spaced at suitable intervals (approximately 50 cm).

K2 Life-rafts

- (1) Retro-reflective tapes should be fitted around the canopy of the raft at suitable intervals (approximately 50 cm) and at a suitable height above the waterline.
- (2) On inflatable life-rafts retro-reflective tapes should also be fitted on the underside of the floor (four tapes fitted at equal intervals around the outer edges on the bottom of the life-rafts).
- (3) The tapes should be sufficiently wide and long (approximately 5 x 30 cm).
- (4) A suitable cross-shaped marking of two such tapes should also be applied to the top of the canopy.
- (5) On rafts which are not equipped with canopies at least four such tapes should be attached to and evenly spaced on the buoyancy chamber in such a manner that they are visible both from the air and sea.

K3 Lifebuoys

Retro-reflective tape of a sufficient width (approximately 5 cm) should be applied around or on both sides of the body of the buoy at four evenly-spaced points.

K4 Buoyant apparatus

- (1) Buoyant apparatus should be fitted with retro-reflective tapes in the same manner as rafts without canopies, always depending on the size and shape of the object. The reflectors should be visible from both the air and sea.
- (2) The retro-reflective material to be used should, if possible, be of a type which can also act as an effective radar reflector, e.g. a tape with a metal foil backing.
- (3) To ensure effective performance under all conditions Administrations concerned are advised until further notice to use retro-reflective material which meets the conditions set by the United States Government specification LS-30Q-A of January 1970, which inter alia contains requirements with regard to reflective power and durability.

ANNEX L ALTERNATE STANDARDS FOR INSHORE 'WARM WATERS' FISHING VESSELS

(from EX02 schedule 2)

L1 Safety Equipment

Kind of safety equipment	Minimum quantity	Performance standard
Lifejackets	For every person onboard	Coastal lifejacket must be designed and manufactured in accordance with either: (a) AS 4758.1; or (b) ISO 12402-3
Flares	2 red and 2 orange smoke	(1) Must be designed and manufactured in accordance with AS 2092 (2) Must not exceed the manufacturer's expiry date (3) In areas where distress signals are prohibited an EPIRB is to be carried in place of the distress signal. <i>Example</i> The areas around some inland waterways prohibit the use of flares due to bush fire risk.
V sheet	1	Must be a fluorescent orange-red coloured sheet of dimensions not less than 1.8 metres x 1.2 metres with a black letter 'V' superimposed on the middle of the sheet. The letter "V" on the sheet must be no more than 150 millimetres wide
First aid kit	1	(1) Must be stored in a weathertight and portable case of non-corrosive and strong material (2) Must have secure fasteners capable of quick release (3) Must contain medical supplies that are: (a) within their expiry date; and (b) accompanied by instructions for use that are in English and include advisory information from the Australian Pharmaceutical Formulary; and (c) sufficient for the nature of the vessel's operations taking into account:

		<p>(i) the length of the voyage; and</p> <p>(ii) the number and ages of persons on board</p>
<p>Person overboard retrieval device –</p> <p>Either:</p> <p>lifebuoy</p> <p>or</p> <p>custom made retrieval device</p>	<p>1</p> <p>(If more than 1 person is on board)</p>	<p>Lifebuoy:</p> <p>(1) Must be designed and constructed to:</p> <p>(a) have a yellow or red safety colour; and</p> <p>(b) have marine grade reflective material fitted; and</p> <p>(c) be capable of supporting not less than 143 newtons of iron in fresh water for 24 hours, and</p> <p>(2) Must not be permanently secured, and</p> <p>(3) Must be capable of easy deployment, and</p> <p>(4) Must have 30m of 8mm rope attached, and</p> <p>(5) a self-igniting light.</p> <p>Retrieval device:</p> <p>(1) Must not be permanently secured, and</p> <p>(2) Must be capable of easy deployment, and</p> <p>(3) Must have 30m of 8mm rope attached, and</p> <p>(4) a self-igniting light.</p>

L2 Other equipment and arrangements

Kind of equipment	Minimum quantity	Performance standard
Anchor with chain and rope	1	<p>(1) The anchor must have sufficient holding strength for seabed conditions and the vessel's size and weight</p> <p>(2) The chain or line must have sufficient strength and durability to securely attach the anchor</p>
Bailer	1 (if vessel is not self-draining)	Must be a suitable receptacle for bailing water with a secure lanyard rope for attachment to the vessel.
Bilge pump	1 for vessels > 5m	Minimum pump capacity 4 kL/hr

	2 for vessels > 7.5m	Each with minimum pump capacity 4 kL/hr
Communication equipment	1	<p>Either:</p> <p>(1) If within coverage area of VHF service: a VHF marine radio; or</p> <p>(2) if outside the coverage of VHF service:</p> <p>(a) a MF/HF transceiver approved by ACMA for maritime use; or</p> <p>(b) a satellite phone.</p> <p>Note: An EPIRB does not meet the communication equipment requirement.</p>
Fire blanket	1 in each galley space	Must meet AS/NZS 3504 or AS 2444
Portable fire extinguisher(s)	1 x 1kg dry powder and / or larger as determined by risk assessment in vessel's SMS	Must meet the standards in the series AS/NZS 1841.1 to 1841.8 that are applicable to fire extinguishers of its type.
Navigation lights	If operating between sunset and sunrise or in restricted visibility	<p>(1) Must comply with the design, performance and positioning requirements mentioned in:</p> <p>(a) MO 30, Prevention of collisions; or</p> <p>(b) ISO 16180</p> <p>Note: MO 30 gives effect to the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS).</p>
Electronic navigation device	1 (if vessel not equipped with a chart and compass)	May be a hard wired or portable unit with a reliable power source
Buoyant torch or lantern	1	<p>(1) Must be designed and constructed to be:</p> <p>(a) waterproof; and</p> <p>(b) able to float; and</p> <p>(c) capable of being used to signal for help, and</p> <p>(2) Must be stored with spare batteries.</p>
Water rations	2L per person on board	

ANNEX M ALTERNATE STANDARDS FOR BEACH FISHERY VESSELS

(from EX02 schedule 2)

M1 Safety equipment

Kind of safety equipment	Minimum quantity	Performance standard
Lifejackets	For every person onboard	Coastal lifejacket must be designed and manufactured in accordance with either: (a) AS 4758.1; or (b) ISO 12402-3
Buoyant appliance suitable to retrieve a person overboard	1 (If more than 1 person is on board)	(1) Must be designed and constructed to: (a) have a yellow or red safety colour; and (b) have marine grade reflective material fitted; and (c) be capable of supporting not less than 143 newtons of iron in fresh water for 24 hours, and (2) Must not be permanently secured, and (3) Must be capable of easy deployment, and (4) Must have 30m of 8mm rope attached, and (5) a self-igniting light.

M2 L2 Other equipment and arrangements

Kind of equipment	Minimum quantity	Performance standard
Bailer	1 (if vessel is not self-draining)	Must be a suitable receptacle for bailing water with a secure lanyard rope for attachment to the vessel.
Bilge pump	1 for vessels > 5m	Minimum pump capacity 4 kL/hr
	2 for vessels > 7.5m	Each with minimum pump capacity 4 kL/hr
Navigation lights	If operating between sunset and sunrise or in restricted visibility	(1) Must comply with the design, performance and positioning requirements mentioned in:

		<p>(a) MO 30, Prevention of collisions; or</p> <p>(b) ISO 16180</p> <p>Note: MO 30 gives effect to the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS).</p>
Buoyant torch or lantern	1	<p>(1) Must be designed and constructed to be:</p> <ul style="list-style-type: none"> (a) waterproof; and (b) able to float; and (c) capable of being used to signal for help, and <p>(2) Must be stored with spare batteries.</p>

ANNEX N ALTERNATE STANDARD FOR LIFERAFT CAPACITY

(from 5.5 and EX06)

N1 When liferafts are being serviced, repaired, or replaced

- (1) A vessel is exempt from complying with the minimum quantity of liferafts in tables 2, 3 or 4 of this Subsection, if the following criteria are met:
 - (a) The owner and master of the vessel must ensure that:
 - (b) the date the liferaft is removed from the vessel for servicing, repair or replacement is recorded by the owner or master in the vessel's logbook; and
 - (c) a procedure is adopted to ensure that everyone working on board is aware that the liferaft has been removed, and the consequence of that for the maximum number of persons that may be carried on the vessel; and
 - (d) for each voyage the vessel undertakes — it is carrying the quantity of liferafts sufficient for persons on board; and
 - (e) before a voyage commences — the number of persons and liferafts on board the vessel is recorded in the vessel's logbook by the owner or master; and
 - (f) while the liferaft is not in service — documentation is available on board the vessel:
 - (i) demonstrating that the liferaft is not in service because it is being serviced, repaired or replaced; or
 - (ii) showing the listing, certification or type approval of the liferaft not in service.

ANNEX O STANDARDS FOR ALTERNATE LIFERAFT (ISO TYPE 2) OPTION ON < 12 M 2C AND 3C VESSELS

(tables 2 and 3)

O1 Design and construction standards

An ISO type 2 liferaft must meet the design and construction standards of ISO 9650-1:2022.

O2 Equipment

- (1) The ISO type 2 liferaft must contain the equipment listed in ISO 9650-1:2022, *table 5 – Type 2*.
- (2) The following additional equipment must also be carried on the vessel, either in the liferaft, or in a clearly marked grab bag located in a readily accessible position:
 - (a) a float-free EPIRB that is registered with AMSA, and
 - (b) The additional equipment listed in table O.1 below.

Table O.1 – Additional equipment requirements

(from ISO 9650-1:2022 type 1, pack 1 > 24 h)

Additional equipment (in liferaft or grab bag)	# per person	# per liferaft	# per vessel
Float-free EPIRB registered with AMSA	-	-	1
First aid kit in a resealable waterproof container, containing	-	1	-
Drinking water in ≤ 125 ml containers	1.0 L	-	-
Food	10,000 kJ	-	-

ANNEX P STANDARDS FOR ALTERNATE NON-ISO LIFERAFT OPTION ON < 7.5 M 2C AND 3C VESSELS

(tables 2 and 3)

P1 Design and construction standards

The liferaft must comply with a standard approved by the National Regulator.

P2 Equipment

- (1) The equipment listed in table P.2 must be carried on the vessel, either in the liferaft, or in a clearly marked grab bag located in a readily accessible position.

NOTE: If any items from table P.2 are already packed in the alternate non-ISO liferaft, they do not need to be duplicated in the grab bag.

Table P.2 – Equipment requirements for non-ISO alternate liferafts

Equipment (in liferaft or grab bag)	# per person	# per liferaft	# per vessel
Float-free EPIRB registered with AMSA	-	-	1
First aid kit in a resealable waterproof container, containing	-	1	-
Drinking water in ≤ 125 ml containers	1.0 L	-	-
Food	10,000 kJ	-	-
Bailer or sponge		2	
Paddle/s		1	
Whistle		1	
Waterproof light source – 6 hour duration		1	
Signalling mirror		1	
Anti-seasick pills	6		
Seasick bag	1		
Red hand flares		3	
Red parachute flares		2	
Repair kit		1	
Air pump		1	

ANNEX Q ALTERNATE ARRANGEMENTS TO CARRIAGE OF LIFERAFTS FOR < 7.5 M 2C AND 3C VESSELS WITHOUT LEVEL FLOTATION

Q1 Vessel design and stability standard

The vessel must have basic flotation in accordance with the definition used NSCV C6B.

Q2 Equipment

The vessel must carry:

- (a) either:
 - (i) a float-free EPIRB; or
 - (ii) a GNSS equipped EPIRB that meets AS/NZS 4280.1, and
- (b) buoyant appliances sufficient for the number of people onboard, unless grablines are fitted in accordance with Annex C.

Q3 Operation

- (1) All persons on the vessel must wear coastal lifejackets at all times.
- (2) The vessel must only be operated in:
 - (a) waters that are not hazardous waters; and
 - (b) wind and sea states not exceeding beaufort scale 6 (27kn) and 2.5m significant wave height.

Q4 Risk assessment

A risk assessment must have been conducted and documented in the vessel's safety management system (SMS) that:

- (a) demonstrates that it is safe for the vessel to operate without both a liferaft and level flotation, and
- (b) identifies the circumstances onboard when lifejackets must be worn at all times, including when no liferaft is carried in open waters.