Standing Council on Transport and Infrastructure

National Standard

for

Commercial Vessels

PART G

NATIONAL STANDARD for GENERAL SAFETY REQUIREMENTS for VESSELS

Edition 1.0

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FOREWORD

Under the State and Territory maritime safety systems in place prior to the introduction of the Marine Safety (Domestic Commercial Vessel) National Law Act (the National Law), a variety of standards for design and construction have been mandated for certain smaller and lower risk commercial vessels. This standard was developed to provide a common national approach to requirements for such vessels, and support the introduction of the National Law.

The requirements in this standard facilitate the general intent expressed in Table F.1 of NSAMS Section 4 that the National Standard for Commercial Vessels (NSCV) would not apply to specified low risk vessels under 7.5m in length operating in sheltered waters or to recreational training vessels under 24m in length and operating in inshore operations. The requirements of this standard also reflect a policy decision taken by the National Regulator, in consultation with the Standing Council on Transport and Infrastructure (SCOTI), that the NSCV would not be applied to some specified vessels.

The design and construction requirements of this standard include some common elements with the National Standard for the Australian Builders Plate for Recreational Boats, but are more stringent in certain areas, including the requirement for level flotation in a wider range of specified craft.

The requirements for safety equipment of this standard generally equate to those commonly applied to recreational craft, recognising that recreational boat safety equipment requirements are not uniform around Australia.

Because this standard is intended to be applied outside the commercial vessel survey regime, the requirements are objectively expressed, including listing all acceptable alternatives, rather than using an outcomes-based approach, like the NSCV. As such, this standard is simpler for designers and operators to apply (as compared to the remainder of the NSCV) and a survey authority need not be involved in the design and construction process.

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CHAPTER 1 GENERAL

1.1 SCOPE

This standard specifies minimum vessel design requirements and minimum equipment to be carried onboard a commercial vessel that is not required to hold a certificate of survey under the National System for Commercial Vessel Safety (the National System). The requirements of this standard only address vessels undertaking operations in sheltered waters or inshore operations.

This standard does not address operational requirements, such as those for safety management systems, emergency preparedness, crewing or crew competency or mandatory wearing of PFDs.

NOTES:

1. The application of this standard will be determined by the National Law. Typical vessels covered by this standard include low risk vessels less than 7.5m in length, not carrying any passengers and operating in sheltered waters, as well as vessels up to 24m in length used for training recreational boaters operating in inshore operations. As the National System develops, this standard may be applied to additional groups of vessels in inshore operations.
2. Requirements for operational practices of commercial vessels, including safety management systems, emergency preparedness and crewing are specified in NSCV Part E. Requirements for crew competencies will be specified in the National Law.
3. In addition to the requirements specified in this standard, there may be local requirements specified under state or territory water management or maritime safety legislation mandating the wearing of PFDs when using specified types of craft and in certain circumstances/areas.

1.2 APPLICATION

This standard applies to commercial vessels specified as subject to the standard in the National Law or another law.

Where compliance to this standard is required under the National Law or another law, it does not apply through the commercial vessel survey process, as set out in NSAMS Section 4.

The requirements in Chapter 3 of this standard (Vessel Design) are not intended to be applied retrospectively to existing vessels in commercial service prior to the introduction of the National Law or the introduction of another law applying this standard.

1.3 REFERENCED DOCUMENTS

The following documents have been referenced in this standard and in some instances applied in full. Any document referenced in this standard should be considered to be the latest revision of the document including all amendments.

AUSTRALIAN TRANSPORT COUNCIL

National Standard for the Administration of Marine Safety

Section 4—Survey of Vessels

National Standard for Commercial Vessels

Part B—General Requirements

Part C—Design and Construction

Subsection 5A—Machinery

Subsection 6A—Intact Stability Requirements

Subsection 6B—Buoyancy and Stability after Flooding

Part E—Operational Practices

National Marine Guidance Manual

Manual 10—Administrative Protocol for Assessing Generic Equivalent Solutions under the NSCV

STANDARDS AUSTRALIA

AS 1499—*Personal flotation devices—Type 2*

AS 1512—*Personal flotation devices—Type 1*

AS 1799—*Small craft*

Part 1—*General requirements for power boats*

AS 2092—*Pyrotechnic, marine distress flares and signals for pleasure craft*

AS 2198—*Anchors for small boats*

AS 2260—*Personal flotation devices—Type 3*

AS 2906—*Fuel containers - Portable-plastic and metal*

AS/NZS 4280—*406 MHz satellite distress beacons*

AS/NZS 4415—*Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands – Technical characteristics and methods of measurement*

AS 4758.1—*Personal flotation devices*

Part 1—*General requirements*

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO 6185—*Inflatable boats*

Part 1: *Boats with a maximum motor power rating of 4.5 kW*

Part 2: *Boats with a maximum motor power rating of 4.5 kW to 15 kW inclusive*

Part 3: *Boats with a maximum motor power rating of 15 kW and greater*

Part 4: *Boats with a hull length of between 8m and 24m with a motor power rating of 15 kW and greater*

ISO 8666—*Small craft – Principal data*

ISO 7840—*Small craft – Fire-resistant fuel hoses*

ISO 10088—*Small Craft – Permanently installed fuel systems and fixed fuel tanks*

ISO 11592—*Small craft – Determination of maximum propulsion power*

ISO 12402—*Personal flotation devices*

Part 3: *Lifejackets, performance level 150 – Safety requirements*

Part 4: *Lifejackets, performance level 100 – Safety requirements*

Part 5: *Buoyancy Aids (level 50 – Safety requirements*

ISO 12217— *Small craft—Stability and buoyancy assessment and categorization*

Part 1: *Non-sailing boats of hull length greater than or equal to 6 m*

Part 2: *Sailing boats of hull length greater than or equal to 6 m*

Part 3: *Boats of hull length less than 6 m*

ISO 13590—*Small craft – Personal watercraft – Construction and system installation requirements*

ISO 14946—*Small craft – Maximum load capacity*

ISO 21487—*Small craft - Permanently installed petrol and diesel fuel tanks*

INTERNATIONAL MARITIME ORGANIZATION

Regulations for the Prevention of Collision at Sea (Col Regs)

UNDERWRITERS LABORATORIES

UL 1180—Marine Inflatable Personal Flotation Devices

CANADIAN GENERAL STANDARDS BOARD

CAN/CGSB-65.11-M88—*Personal flotation devices*

CAN/CGSB-65.15-M88—*Personal flotation devices for children*

SOCIETY OF AUTOMOTIVE ENGINEERS

J1527—*Marine fuel hoses*

J1973—*Personal Watercraft--Flotation*

J2034—*Personal Watercraft Ventilation Systems*

J2046—*Personal Watercraft Fuel Systems*

J2120—*Personal Watercraft--Electrical Systems*

J2566—*Personal Watercraft--Display of Persons Capacity Information*

J2608—*Off Throttle Steering Capabilities of Personal Watercraft*

1.4 DEFINITIONS

For this standard—

a) the definitions in NSCV Part B and those in this clause apply unless otherwise indicated; and

b) where there is any conflict between this clause and NSCV Part B, the definitions in this clause apply.

inshore operations—

operations laterally along the coast from the base or regular port of departure, and within a limit of 15 nautical miles to seaward of the coast or of sheltered water limits designated by the legislation of each State or Territory; or within such lesser limits as may be specified by state or territory authorities under local waterway management legislation.

length (of a vessel)—

the measured length (L_m) as defined in NSCV Part B.

partially smooth waters—

waters designated partially smooth by the legislation of each State or Territory. They are waters where the significant wave height does not exceed 1.5 metres from trough to crest for at least 90 per cent of the time.

NOTE: Examples of partially smooth waters include parts of bays (eg: Botany Bay and Moreton Bay); ports (eg: Port Phillip and Port Augusta); areas of water between the mainland and islands (eg: Boston Island, Rottnest Island); and inland waters (eg: Coorong and Lower Lakes).

personal flotation device—

a garment or device which, when correctly worn and used in water, will provide the user with a specific amount of buoyancy which will increase the likelihood of survival.

sheltered waters—

waters comprising designated smooth and partially smooth waters.

smooth waters—

are inland waters and any other waters designated as smooth by the legislation of each State or Territory. They are waters where the significant wave height does not exceed 0.5 metres from trough to crest for at least 90 per cent of the time.

tender—

a boat that forms part of the equipment of a parent vessel, operating on sheltered waters, intended to carry people and goods from the shore to the parent vessel, or between the parent vessel and another vessel.

NOTE: A tender will normally be assessed as part of the equipment of the parent vessel. This standard only deals with tenders where the parent vessel is not required to be surveyed.

waterway management legislation—

State and Territory marine safety, navigation, harbour, port or other laws that classify waters and regulate issues such as speed limits, alcohol and drug use on water, personal flotation device and other minimum equipment requirements, conditions for crossing bars and so on.

1.5 ABBREVIATIONS

ACMA—

Australian Communications and Media Authority

AMSA—

Australian Maritime Safety Authority

NSAMS—
National Standard for the Administration of Marine Safety
NSCV—
National Standard for Commercial Vessels
PFD—
personal flotation device

CHAPTER 2 MINIMUM SAFETY REQUIREMENTS

2.1 SCOPE

This Chapter specifies the minimum equipment to be carried onboard the vessels covered by this standard in different operating conditions. This Chapter also specifies vessel design and construction requirements, where they are relevant.

2.2 EQUIPMENT AND VESSEL DESIGN AND CONSTRUCTION

The vessels listed in Table 1 must, at a minimum, carry the safety equipment and conform to the vessel design requirements specified in Table 1. Tenders less than 7.5m in length operating in sheltered waters must comply with Table 1. Other tenders are beyond the scope of this standard.

All other vessels covered by this standard must carry as a minimum the equipment specified in Tables 2 and 3 relevant to the vessel length and area of operation. No design requirements are specified for those vessels.

All equipment specified in Tables 1, 2 and 3 must meet the equipment standard specified in Chapter 4 of this standard.

Where a vessel is required by Table 1 to meet vessel design requirements for engine power rating, maximum load capacity or fuel systems, the standards specified in Chapter 3 must be met.

Table 1 — **Safety Equipment and Design Standards for Specified Vessels**

Type of vessel	Safety equipment requirements	Vessel design requirements
Personal Watercraft (PWC)	As specified in Tables 2 and 3.	Clause 3.7
Sailboard or kite surfer	A Level 50 or Level 50S PFD must be provided for each person when operating more than 400m from the nearest shore.	Nil
Sailing vessel less than 7.5m in length not fitted with an engine.	A Level 50 PFD must be provided for each person on board when operating on sheltered waters. When operating beyond sheltered waters, the equipment specified in Tables 2 and 3. A bailer or bilge pump must be carried unless the vessel is fully self-draining.	Nil
Canoes, kayaks, dragon boats and other human powered craft	A Level 50 PFD must be provided for each person when operating on sheltered waters. A Level 100 PFD must be provided for each person when operating beyond sheltered waters. A bailer or bilge pump must be carried unless the vessel is fully self-draining.	Nil

Type of vessel	Safety equipment requirements	Vessel design requirements
Vessel less than 7.5m in length fitted with an engine and including tender vessels fitted with an engine	As specified in Tables 2 and 3.	Level flotation, as specified in Chapter 3 Maximum load capacity, as specified in Chapter 3 Engine power rating, as specified in Chapter 3 Fuel systems, as specified in Chapter 3
Vessel equal to or greater than 7.5m in length, fitted with an engine. Note: As an example of the application of this standard to vessels that are equal to or greater than 7.5m in length, specified recreational training vessels are likely to be subject to the standard under the National Law. However, the application of the standard will be specified in the National Law.	As specified in Tables 2 and 3.	Maximum load capacity, as specified in Chapter 3 Engine power rating, as specified in Chapter 3 Fuel systems, as specified in Chapter 3
Inflatable surf rescue boat fitted with an engine operating within 2 nautical miles of the shore.	Paddles or oars must be carried	Nil
Tender not fitted with an engine.	The following equipment must be carried onboard: A Level 50 PFD for each person on board. A bucket or bailer. A painter suitable for towing the tender	Nil

Table 2 — Required Equipment for Vessels in Various Operational Areas

Item	Quantity (S)	Notes	Area of operation		
			Sheltered waters	Inshore Operations up to 2nm from the coast (I)	Inshore Operations
Anchor with chain or line	1		✓	✓	✓
Bilge pump	(B2)		(B1)	(B1)	(B1)
Bucket or bailer	1		(B1)	(B1)	(B1)
Compass	1		—	✓	✓
Distress Signal —orange smoke hand-held	2		(D)	(D)	✓
Distress Signal —red hand-held distress flare	2		(D)	(D)	✓
Distress Signal—red star parachute distress rocket	2		—	—	✓
Drinking water	2L per person		—	✓	✓
EPIRB	1		—	—	✓
Fire bucket	1		✓	✓	✓
Fire extinguisher	(F2)		(F1)	(F1)	(F1)
Fire blanket	1		(F3)	(F3)	(F3)
First aid kit	1		✓	✓	✓
Life raft or dinghy	1		—	—	(R)
Map or chart of area	1		—	✓	✓
Marine radio	1		—	—	✓
Navigation lights (N1)	(N2)	(N2)	✓	✓	✓
Secondary means of propulsion.	1 set	(P1)	(P2)	(P2)	(P2)
Waterproof/buoyant torch	1		✓	✓	✓

KEY: ✓ Required — Not required

(B1) Bilge pump (electric or manual) shall be provided on boats with covered bilges or closed under-floor compartments other than airtight void spaces. For other boats, a bailer shall be carried.

(B2) Bilge pumps must be capable of draining each compartment of the boat other than airtight void spaces. This may require more than one bilge pump to be fitted.

(D) Flares must be carried on remote enclosed sheltered waters and inshore operations to 2nm where assistance is not readily available.

(F1) Fire extinguishers must be carried on all boats where fuel or a battery is carried, or where there is a gas installation or fuel stove.

(F2) The number of fire extinguishers must be as specified in AS 1799.1.

(F3) A first aid kit and fire blanket where there is a fitted galley.

(I) This column only applies to those inshore operations undertaken within 2 nautical miles to seaward of the mainland coast.

(N1) Navigation lights are required from sunset to sunrise and in restricted visibility.

(N2) Quantity and type of Navigation lights fitted are to be in accordance with the Regulations for the Prevention of Collision at Sea (as amended).

(P1) The secondary means of propulsion may be a pair of oars or a paddle for vessels under 7.5 m in length. Sails on sailing craft are deemed to be the primary means of propulsion.

(P2) A secondary means of propulsion is only required if a marine radio is not carried.

(R) A life raft or dinghy is only required to be carried by a vessel that does not have level flotation in accordance with Chapter 3. This provision will not affect new vessels which are required to comply with Chapter 3.

(S) All equipment specified in Tables 2 and 3 must meet the equipment standard specified in Chapter 4 of this standard.

Table 3 — **Personal Flotation Devices**

Item	**Quantity** (S)	**Area of operation**	
		Sheltered waters	**Inshore operations**
Level 100 PFD	(P)	—	✓
Level 100, Level 50 or Level 50S PFD	(P)	✓	—
Level 50 or Level 50S PFD	(P)	(J)	(J)

KEY: ✓ Required — Not required

(P) A PFD must be carried for each person onboard the boat.

(J) For personal watercraft, a Level 50 or Level 50S PFD must be used.

(S) All equipment specified in Tables 2 and 3 must meet the equipment standard specified in Chapter 4 of this standard.

CHAPTER 3 VESSEL DESIGN

3.1 SCOPE

This Chapter specifies the minimum standards for aspects of vessel design.

NOTE: See Clause 1.2 for the application of this Chapter.

3.2 COMPLIANCE WITH STANDARDS

Where a vessel is required by Table 1 to meet vessel design requirements for engine power rating, maximum load capacity or fuel systems, the standards specified in this Chapter 3 must be met.

Where a vessel is required by Table 1 to meet level flotation, the methods for assessing flotation performance in the standards specified in Clause 3.3 apply, and any alternatives to level flotation permitted in those standards are not accepted. Guidance on suitable evidence of compliance is provided in Annex A

The standard used to determine compliance with Clause 3.3 must be consistent with the standard used to determine compliance with Clause 3.5. If a standard from one standard-setting organisation is used for determining compliance with Clause 3.3, a standard from another standard-setting organisation can not be used for determining compliance with Clause 3.5.

EXAMPLE: If a builder uses an ABYC standard to determine the person capacity and maximum load, the ABYC standards will also need to be used to determine flotation performance.

NOTE: The consistent use of standards only applies within Chapter 3. A standard from a different standards setting body may be used for determining compliance with Chapter 4.

3.3 FLOTATION PERFORMANCE

Where a vessel is required by Table 1 to meet vessel design requirements for level flotation, the vessel must have level flotation with swamped stability, determined in accordance with:

a) NSCV Part C Section 6B; or

b) AS 1799.1; or

c) ABYC *Standards and Technical Information Reports for Small Craft*; or

d) ISO 12217.

Where air compartments are used as a source of buoyancy, regardless of which of the above technical standards is employed, the buoyancy must be assessed with the two largest air compartments flooded. If the technical standard requires more air compartments to be flooded, in addition to the two largest, the more onerous requirement must apply.

Compliance with the ISO 6185 series is deemed to be equivalent to level flotation with swamped stability for inflatable boats that come within the scope of that series of standards.

3.4 ENGINE POWER RATING

Where a vessel is required by Table 1 to meet vessel design requirements for engine power rating, the outboard engine power must not exceed the rating determined in accordance with one of the following:

a) ABYC Standards and Technical Information Reports for Small Craft.

b) AS 1799.

c) ISO 6185.

d) ISO 8665 and ISO 11592.

3.5 MAXIMUM LOAD CAPACITY

Where a vessel is required by Table 1 to meet vessel design requirements for maximum load capacity, the maximum load capacity must not exceed that determined in accordance with one of the following:

a) ABYC Standards and Technical Information Reports for Small Craft.

b) AS 1799.

c) ISO 6185.

d) ISO 13590 or SAE J 1973.

e) ISO 14946.

Determining maximum load capacity in accordance with any of the listed standards will involve meeting a range of requirements in the loaded condition, including a stability assessment.

This standard does not require the maximum persons capacity to be determined; however, if identification of maximum persons capacity is required under the National Law or another law, the determination should be based on a mass of 80kg per person plus 10kg of personal equipment per person. That is, 90kg per person.

3.6 FUEL SYSTEMS

Where a vessel is required by Table 1 to meet vessel design requirements for fuel systems, the fuel systems of vessels fitted with a petrol or diesel engine must comply with either—

a) Chapter 4 of NSCV Part C Subsection 5A; or

b) Annex B of this standard.

Flexible fuel lines must comply with ISO 7840 type A1 or SAE J1527 type A.

3.7 PERSONAL WATERCRAFT

As set out in Table 1, instead of compliance with clauses 3.3 to 3.6, personal watercraft (PWC) must comply with either:

a) ISO 13590; or

b) SAE J1973, J2034, J2046, J2120, J2566 and J2608.

CHAPTER 4 STANDARDS FOR EQUIPMENT

4.1 SCOPE

This Chapter specifies minimum standards for required items of safety equipment specified in Tables 1, 2, and 3 of this standard.

4.2 REQUIREMENTS

The equipment required to be carried in accordance with Tables 1, 2, and 3 must meet the standards specified in Table 4, and Clause 4.4. Guidance on suitable evidence of compliance is provided in Annex A.

Table 4 — Standard for required items of equipment

Item	Minimum Standard Required
Anchor with chain or line	The anchor with chain or line must be suitable for the purpose of securing the boat given the boat's size, weight and the area of operation. The chain or line must be of sufficient strength and durability for the purpose and is to be securely attached to both the anchor and the boat. The anchor must comply with AS 2198.
Bailer	A bailer must be suitable for bailing water from the boat and must have a lanyard (rope) securely attached to prevent loss from the boat. The bailer must be readily accessible and must not used for any other purpose. A fire bucket carried in accordance with this standard, may double as a bailer provided it satisfies the above requirements.
Bilge Pump	The pump or pumps must be capable of draining each compartment of the boat. They may be either manual or power operated, and must have a strainer fitted to the suction pipe. The strainer must be of a sufficiently small mesh size to prevent choking of the pump. Electric bilge pumps may operate at extra-low voltage (12V).
Compass	Liquid damped with rotating card showing the cardinal points.
EPIRB	A 406MHz Emergency Position Indicating Radio Beacon (EPIRB) suitable for marine use that conforms to AS/NZS 4280. A 406 MHz EPIRB required in compliance with this standard must be registered with AMSA.
Fire bucket	The bucket must be suitable for collecting water for use in case of fire of solid combustibles. The bucket must be manufactured from waterproof and robust material, and must be designed so as not to collapse, distort or lose the handle when full of water. The bucket must not to be used for any other purpose, apart from being used as a bailer, and must be readily available at all times. The bucket must have a lanyard (rope) attached, which is of sufficient length and strength to allow the bucket to be cast over the side and retrieved full of water.

(continued…)

Table 4 cont.

Item	Minimum Standard Required
Fire extinguisher	Fire extinguishers carried must be of a type suitable for the type(s) of fuel carried on board the boat, as specified in AS 1799.1. They must be designed and manufactured in accordance with an Australian Standard specification for portable fire extinguishers. Extinguishers must be stowed, with their location correctly marked, so as to be readily accessible in the case of fire.
First aid kit	First aid kits must be prepared and carried in accordance with the applicable occupational health and safety or workplace safety legislation.
Liferaft or dinghy	Inflatable liferafts must be designed and constructed in accordance with the requirements for coastal liferafts specified in NSCV Part C7A. Dinghies used in place of a liferaft must have level flotation.
Marine Distress Flares • Red hand-held distress flare • Orange smoke hand-held distress signal • Red-star parachute distress rocket	Marine distress flares must be designed and manufactured in accordance with the provisions of AS 2092 as they relate to red hand-held distress flares, orange smoke hand-held smoke signals, and red star parachute distress rockets. Marine distress flares must not exceed the manufacturer's expiry date.
Marine radio	**For boats operating within the coverage area of VHF service**, a VHF transceiver which must be approved by ACMA as a type suitable for maritime use. If a Digital Selective Calling (DSC)-capable radio is installed it must be fully operational, ie programmed with an AMSA-assigned MMSI (unique to the vessel) and contain or be connected to a Global Positioning System (GPS) receiver. **For boats operating outside the coverage area of VHF service**, at least one of the following options (in descending order of capability) must be selected by the operator based on the availability of services in the area of operation: 1. Global Maritime Distress and Safety System (GMDSS) compatible Inmarsat C terminal. 2. Class 2 MF/HF transceiver complying with GMDSS Sea Area A3 approved by ACMA as a type suitable for maritime use. 3. A satellite telephone service appropriate for use in the marine environment. NOTE: The satellite telephone option is only available to larger boats that can satisfy the higher transmitter power and antenna performance requirements of satellite telephones.
Navigation lights	Navigation lights must be positioned and perform in accordance with the provisions in the Annexes to the Regulations for the Prevention of Collision at Sea (as amended).
PFDs General	The type of PFD carried must be appropriate to the type of activity, area of operation and body mass of the wearer. The designation of PFDs in this standard refers to the designations in AS 4758.1. Each PFD must be assessed and verified as meeting a recognised standard specified in this Table 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.
	(continued…)

Table 4 cont.

Item	Minimum Standard Required
PFDs General	b) Certified by a JAS-ANZ accredited product certification body. c) Type approved by a ship classification society recognised by AMSA. d) Certified by an AMSA-recognised Notified Body in accordance with the EU Marine Equipment Directive, Module B (MED-B). Inflatable PFDs that rely solely on oral inflation for buoyancy are not acceptable. Every inflatable PFD must be serviced: i) at intervals of 12 months or such longer intervals as determined by the manufacturer and approved as part of the equipment approval; and ii) at a servicing station approved and accredited to do so by the manufacturer of the inflatable PFD.
PFD Level 50S	A Personal flotation device Level 50S must be designed and manufactured in accordance with: a) The requirements for Level 50 Special Purpose PFDs specified in AS 4758.1; or b) AS 2260 and marked as PFD Type 3; or c) A higher Level PFD specified below.
PFD Level 50	A Personal flotation device Level 50 must be designed and manufactured in accordance with: a) The requirements for Level 50 PFDs specified in AS 4758.1; or b) AS 1499 and marked as PFD Type 2; or c) ISO 12402-5; or d) The requirements for Inherently buoyant PFDs specified in CAN/CGSB-65.11-M88/CAN/CGSB-65.15-M88; or e) A higher Level PFD specified below.
PFD Level 100	A Personal flotation device Level 100 must be designed and manufactured in accordance with: a) The requirements for Level 100 PFDs specified in AS 4758.1; or b) AS 1512 and marked as PFD Type 1; or c) ISO 12402-4; or d) UL 1180; or e) The requirements for Small vessel lifejackets specified in CAN/CGSB-65.11-M88/CAN/CGSB-65.15-M88; or f) A higher Level PFD specified below.
PFD Level 150	A Personal flotation device Level 150 must be designed and manufactured in accordance with: a) The requirements for Level 150 PFDs specified in AS 4758.1; or b) ISO 12402-3; or c) NSCV Part C Section 7A (for a Coastal Lifejacket).
Waterproof torch	A water resistant, floating type torch in operational order that is capable of being used to signal.

4.3 REQUIREMENTS FOR THE CARRIAGE, CARE AND MAINTENANCE OF SAFETY EQUIPMENT

All safety equipment carried in accordance with this standard must be:

a) located so as to be readily accessible in time of need; and

b) maintained in accordance with the manufacturer's instructions.

Where the equipment carries a manufacturer's expiry date, the equipment must not exceed the prescribed expiry date.

NOTES:

1. Safety equipment that does not comply with this clause does not comply with this standard.
2. NSCV Part E requires that the master and crew are familiar with the operation of the safety equipment on board.

ANNEX A EVIDENCE OF COMPLIANCE

A1 SCOPE OF ANNEX

This Annex provides guidance on the types of evidence typically used to verify compliance with the relevant requirements in this standard.

This Annex is an informative element of this standard. It is referenced in clauses 3.2 and 4.2.

A2 TYPES OF EVIDENCE

Table A.1 sets out types of evidence of compliance for various aspects of this standard.

NOTE: Listing of equipment on the National Register of Compliant Equipment indicates that the relevant evidence has been reviewed and found to conform with the requirements pertaining to the standard indicated on the register.

Table A.1 — Evidence of Compliance

Requirement	Minimum Evidence of Compliance
Safety Equipment	Safety equipment should be assessed and verified as meeting a recognised standard specified in Table 4 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 Australian Maritime Safety Authority (AMSA). d) Certified by an AMSA-recognised Notified Body in accordance with the EU Marine Equipment Directive, Module B (MED-B).
Flotation performance, maximum load capacity and maximum power capacity	The information on an Australian Builders Plate may be used, provided that it is compliant with the National Standards for Australian Builders Plates for Recreational Boats. Alternatively, a statement by a competent person may be provided, setting out the flotation performance, maximum load capacity and maximum power capacity, determined in accordance with Chapter 3. A competent person is a person who has acquired through training, qualification, experience, or a combination of these, the knowledge and skills enabling that person to competently determine the flotation performance, maximum load capacity and maximum power capacity of the vessel in accordance with Chapter 3. Evidence relating to basic flotation and other compliance options in technical standards that do not involve the vessel having level flotation is not adequate and does not satisfy the evidentiary requirements of this Annex A.
Personal watercraft	For production vessels, evidence of compliance in accordance with the European Recreational Craft Directive (RCD) is acceptable. For production vessels, evidence of certification by the National Marine Manufacturers Association (NMMA) is acceptable.

ANNEX B FUEL SYSTEMS

B1 SCOPE OF ANNEX

This Annex sets out an alternative to compliance with NSCV Part C Subsection 5A for fuel systems.

This Annex forms a normative (mandatory) element of this standard. It is referenced in clause 3.6.

B2 FUEL TANKS

The construction of permanently installed fuel tanks must meet the requirements of ISO 21487 or ISO 10088 and their installation must comply with ISO 10088.

Portable fuel tanks must meet the requirements of AS 2906.

B3 FUEL LINES

A fuel shut off valve must be fitted at the tank end of any fuel line, except in the case of sealed underdeck fuel tanks located in a cofferdam below decks and connecting to outboards, where there is no potential source of ignition in the vicinity of the fuel tank, i.e. no underdeck 12 volt wiring, 12 volt bilge pumps or other sources of electrical ignition, the fuel shut off may be located at the filter in lieu of at the tank.