

NATIONAL MARINE SAFETY COMMITTEE

Final Regulatory Impact Statement

General Safety Requirements for Vessels

March 2012

EXECUTIVE SUMMARY

Under the auspices of an Intergovernmental Agreement and the Standing Committee on Transport and Infrastructure (formerly the Australian Transport Council), the National Marine Safety Committee (NMSC) has developed a standard for domestic commercial vessels not required to be in survey. These are low-risk operations involving vessels less than 7.5 metres in sheltered waters.

Under current State and Territory marine safety regulation, a variety of standards have been mandated for these smaller and lower-risk commercial vessels. Some jurisdictions apply commercial vessel standards, such as the [National Standard for Commercial Vessels \(NSCV\)](#), while others apply recreational vessel standards or recreational and commercial vessel equipment requirements.

There are a number of problems associated with this approach. Firstly, there is a lack of national consistency in regulatory requirements, which creates confusion across borders and contributes additional costs for boat builders and operators. Secondly, current requirements are expressed by relying on varying layers of regulation, resulting in regulatory complexity. Finally, the current requirements may not reflect the risks of the operations. In some jurisdictions, the requirements may impose costs on small, low-risk vessel operators that are not commensurate with the risks involved. In other jurisdictions, a lack of regulation of some these vessels may place crew and passengers at a higher risk than is considered acceptable for a commercial operation. Placing the requirements in a single risk-based standard will improve the clarity and consistency for low-risk vessel operations.

This Regulatory Impact Statement (RIS) considers four options for the treatment of these vessels:

- Status Quo (existing State and Northern Territory requirements);
- The [National Standard for Commercial Vessels \(NSCV\)](#);
- Recreational vessel standards (nationally); and
- The proposed standard - the National Standard for General Safety Requirements for Vessels.

The proposed standard establishes a common national approach to buoyancy and stability, equipment, load capacity and maximum power capacity, for small commercial vessels in low-risk operations. The requirements for equipment contained in the proposed standard generally equate to those commonly applied to recreational craft. However, requirements for design and construction under the proposed standard include some elements of the [National Standard for the Australian Builders Plate for Recreational Boats](#) and make level flotation mandatory for more types of craft.

The standard has been developed to complement the proposed *Maritime Safety (Domestic Commercial Vessel) National Law Act*. It is an important safety net for low-risk commercial vessels and their operations that are deliberately not captured elsewhere in the NSCV where more onerous standards and survey requirements apply.

Requirements in the standard have been objectively expressed, with all acceptable alternatives specified. The aim of this approach is to allow designers and operators to apply the standard without the need for survey authority oversight.

The NMSC conducted extensive stakeholder consultation, with 49 comments received on the draft standard. No comments were received on the draft RIS. Overall, stakeholder comments support the introduction of the proposed standard, which was amended to address the issues raised during consultation. The key changes are outlined in this RIS.

This RIS concludes that the proposed standard is the preferred option. It will reduce overall costs in all jurisdictions. Minor increases in costs will be experienced by a small proportion of boat builders because of the slightly higher requirement for 'level flotation' for these vessels. The marginal increase in costs at the time of construction will deliver a far better safety outcome for crew and passengers on these vessels. Importantly, this requirement is for new-builds only and will not be retrospective.

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1. INTRODUCTION

1.1. Intergovernmental response to marine safety

In November 1997, an Intergovernmental Agreement Establishing a National Marine Safety Regulatory Regime (IGA) was signed by the Prime Minister, State Premiers and the Chief Minister of the Northern Territory.

The IGA included the establishment of the National Marine Safety Committee (NMSC) as part of a strategic response to a report on national marine safety undertaken for the Australian Transport Group by Thompson Clarke. This report identified a number of deficiencies in the administration of marine safety by States and the Northern Territory, including a lack of consistency between the jurisdictions in the application and administration of standards for commercial vessels.

The role of the NMSC includes the development of national standards in accordance with the *COAG Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies* (COAG Guidelines).¹ The COAG Guidelines require, prior to a Ministerial Council adopting a standard, the Ministers being assured that a regulatory assessment process has been adequately completed.²

The Office of Best Practice Regulation (OBPR) approves Regulatory Impact Statements (RISs) for both public consultation and decision making based on compliance with *COAG Best Practice Regulation - A Guide for Ministerial Councils and National Standard Setting Bodies*, October 2007. Prior to the Standing Committee on Transport and Infrastructure adopting the National Standard for General Safety Requirements for Vessels, this RIS must be completed and approved by the OBPR.

1.2. A national approach to marine safety regulation

On 2 July 2009, Transport Ministers agreed to a single national approach to maritime legislation for commercial vessels. The single national approach will be implemented through a Commonwealth law that is applied in all States and the Northern Territory, replacing the current State and Territory maritime laws. The uniform national approach is expected to come into effect in 2013.

In the 2009 Regulatory Impact Statement on the proposed national reform, the *National Approach to Maritime Safety Reform: Consultation RIS April 2009*, envisaged applying the [NSCV](#) to most new commercial vessels through a marine survey regime, but proposed an alternative regulatory treatment, not including marine survey, for certain lower-risk vessels.³ This approach was confirmed in the recent Proposed Regulatory Plan for domestic commercial vessels and their crew under the Maritime Safety National Law, which was the subject of consultation from June to October 2011, and is currently being finalised.

Under both the Consultation RIS and the Proposed Regulatory Plan, the alternative treatment was proposed to apply to vessels less than 7.5 metres in length not carrying passengers and operating on smooth or partially smooth waters, but excluding some higher risk operations (e.g. overnight hire and drive vessels and those with cranes). It

¹ IGA, recitals

² Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies, amended by COAG July 2004

³ National Approach to Maritime Safety Reform: Consultation RIS, April 2009, Appendix D

also included vessels up to 24 metres in length engaged in training recreational boaters operating inshore operations.⁴

This approach was also reflected in [Section 4 of the National Standard for the Administration of Maritime Safety \(NSAMS\)](#), which governs the application of the [NSCV](#) through a survey regime. [Section 4 of NSAMS](#) identifies the same alternative treatment for small, lower-risk vessels.

Section 1.4 below sets out in full those vessels proposed to be subject to the alternative treatment under the *National Approach to Maritime Safety Reform: Consultation RIS April 2009* and [Section 4 of NSAMS](#).

For vessels subject to the alternative treatment, no standard is nominated in either the *National Approach to Maritime Safety Reform: Consultation RIS* or in [Section 4 of NSAMS](#). Both these documents identify the type of requirements to be applied under the alternative treatment, namely:

Compliance with level flotation standards, recreational boat equipment standards or ABP and/or NSCV Part E.

This description indicates that standards similar to those applied to recreational boats should apply. This accords with the current treatment of such vessels in some State and Territory jurisdictions.

In order to provide clarity about the specific obligations that should apply to vessels subject to the alternative treatment under the proposed national law, the NMSC agreed to develop a national standard that translated the intent of the *National Approach to Maritime Safety Reform: Consultation RIS* into specific technical requirements. The NMSC agreed that the standard would cover construction and equipment, with operating requirements to be addressed by a revised [Part E of the National Standard for Commercial Vessels \(NSCV\)](#).

1.3. The proposed standard – National Standard for General Safety Requirements for Vessels

The proposed National Standard for General Safety Requirements for Vessels includes requirements for:

- ▶ Buoyancy and stability;
- ▶ Equipment;
- ▶ Load capacity; and
- ▶ Maximum power capacity.

The requirements contained in the proposed standard are generally based on recreational vessel standards and consumer information legislation, such as that covering the Australian Builder's Plate.

Under the proposed standard, compliance is verified through a declaration prepared by the operator. The vessel may also be subject to random inspections to confirm compliance. There would not be an obligation to have the vessel or its design assessed by a government appointed marine surveyor prior to entering service.

⁴ Inshore operations are defined as '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 designated sheltered water limits; or within such lesser limits as may be specified.'

1.4. Application of the proposed standard

The Standard for General Safety Requirements for Vessels would come into effect when the national law comes into force. It would apply to all new vessels (including those entering into service for the first time) less than 7.5 metres in length, except:

- Vessels undertaking unlimited domestic (A) operations, offshore (B) operations or restricted Offshore (C) operations⁵;
- Vessels carrying passengers ('passengers' does not include users of hire and drive vessels);
- Vessels used primarily for towage;
- Vessels carrying bulk petroleum, gas products or other dangerous goods;
- Certain vessels fitted with a crane or davit;
- A support vessel in the offshore oil industry; and
- Hire and Drive vessels of any length undertaking overnight operations.

It would also apply to new vessels that are used by sailing schools, registered training organisations and the like, when training members of the public to gain recognised⁶ recreational boating qualifications on a fee for service basis. These training vessels could be up to 24 metres in length and may involve venturing into waters beyond those designated as smooth or partially smooth, provided the vessels remain inshore.⁷

Where a vessel is used for multiple purposes (e.g. on certain days it is used for training recreational boaters and on other days for overnight hire and drive operations), the proposed standard would only apply when the vessel is being used in accordance with the conditions set out above. However, where the regulator (i.e. the National Regulator or a marine safety agency on behalf of the National Regulator) requires a vessel used for multiple purposes to comply with the all of the requirements applicable to all of the purposes all of time,⁸ the vessel must comply with the highest standard applicable to its operations. As such, the proposed standard may not be relevant.

The equipment requirements of the proposed standard will also apply to existing vessels, but may be phased-in over time.

⁵ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B.

⁶ Recognised qualifications include a recreational boating operator's licence, a formal qualification issued by Yachting Australia or a similar recreational boater qualification recognised by a State or Territory Marine Safety Authority.

⁷ Inshore operations are defined as '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 designated sheltered water limits; or within such lesser limits as may be specified.

⁸ As is required in Western Australia

2. STATEMENT OF THE PROBLEM

2.1. Overview

As Transport Ministers have agreed to a single national approach to maritime legislation, a nationally consistent set of standards for all vessels within the scope of the national law is desirable. This is achieved for a large proportion of the commercial fleet through the uniform application of the [NSCV](#), but for the vessels described in Section 1.4, no standards have been specified.

The development of the National Standard for General Safety Requirements for Vessels is intended to achieve a single national approach for vessels described in Section 1.4.

In doing so, the standard will also address a number of problems with marine safety standards and administration in Australia for those vessels within the scope of the standard. In summary, these problems relate to:

- ▶ **Lack of national consistency in requirements:** For this low-risk end of the fleet, the requirements that apply vary considerably around Australia. In some jurisdictions, commercial vessel standards (such as the [NSCV](#)) apply, while in others no standards or recreational vessel equipment standards only apply. This creates confusion for industry and can contribute to costs for boat builders and operators.
- ▶ **Piecemeal presentation of requirements:** The current requirements are often listed in regulations that lack clarity and are not regularly updated. Placing the requirements in a standard that is more amenable to change will improve the clarity and transparency of the obligations.
- ▶ **Not a risk-based approach:** In some jurisdictions, commercial vessel standards and survey requirements are applied to the entire fleet – including small vessels engaged in low-risk operations. This may impose costs on the operators of small, low-risk vessels that are not commensurate with the risks involved with the operations. In other jurisdictions, these vessels are not subject to any standards or requirements. This may leave a ‘gap’ in the regulatory regime that places crew and passengers on these vessels at a higher risk than is considered acceptable for a commercial operation. In addition, the lack of a risk-based approach in some jurisdictions has led to a reliance on issuing exemptions and other ad-hoc arrangements that reduce transparency and increase compliance costs for operators.

Each of these issues is explored in more detailed below.

2.2. Lack of national consistency in requirements

Table 1 provides an overview of the current State and Territory requirements for vessels less than 7.5 metres in sheltered waters.⁹ As shown in the table, there are five different approaches to these vessels:

- ▶ Recreational vessel equipment standards;
- ▶ Alternative specified equipment and construction requirements;
- ▶ Commercial vessel equipment standards;

⁹ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are ‘sheltered waters’

- ▶ Commercial vessel standards (construction and equipment); or
- ▶ Commercial vessel standards (construction and equipment) and survey.

Table 1 — Overview of current requirements

	Fishing vessels < 7.5m Sheltered waters	Hire and drive vessels < 7.5m Sheltered waters	Trading vessels < 7.5m Sheltered waters	Sail Training Vessels
Northern Territory	Safety equipment requirements 'determined by the director'	< 7m safety equipment requirements > 7m commercial vessel standards including survey	< 5m recreational vessel safety equipment requirements > 5m commercial vessel standards including survey	Recreational vessel safety equipment requirements
New South Wales	< 6m recreational vessel safety equipment requirements and level flotation > 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements	< 6m recreational vessel safety equipment requirements and level flotation > 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements	< 6m recreational vessel safety equipment requirements and level flotation > 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements	Recreational vessel safety equipment requirements Operating in offshore waters - structure and stability approval Yachts – specified equipments
South Australia	Specified structural and equipment requirements, initial inspection	Recreational equipment standards Houseboats - modified commercial vessel construction and equipment standards and partial survey	Commercial vessel standards, including survey 2E vessels – specified structural and equipment requirements, initial inspection	Commercial vessel standards, including survey
Queensland	Recreational vessel safety equipment standards Except some fishing vessel tenders – no safety equipment requirements	< 6m Statement of Positive Flotation and a suitability statement for registration (by manufacturer or an accredited marine surveyor) and commercial vessel equipment standards 6m – 7.5m commercial vessel standards and initial	< 6m Statement of Positive Flotation and a suitability statement for registration (by manufacturer or an accredited marine surveyor) and commercial vessel equipment requirements 6m – 7.5m commercial vessel standards and initial	Yachting Queensland Safety Compliance Certificate

	Fishing vessels < 7.5m Sheltered waters	Hire and drive vessels < 7.5m Sheltered waters	Trading vessels < 7.5m Sheltered waters	Sail Training Vessels
		compliance certification	compliance certification Tenders - recreational vessel safety equipment standards	
Tasmania	Commercial vessel standards > 6m initial survey	Commercial vessel standards > 6m initial survey	Commercial vessel standards > 6m initial survey	Specified equipment
Victoria	Commercial vessel standards, including survey	Commercial vessel standards, including survey	Commercial vessel standards, including survey	Commercial vessel standards, including survey
Western Australia	Vessels operating within 5NM of mainland – commercial vessel equipment standards 2E/3E vessels – specified equipment only All other vessels – commercial vessel standards, including survey	<5m vessels are type approved >5m NSCV applies and survey	Vessels operating within 5NM of mainland – commercial vessel equipment standards 2E/3E vessels – specified equipment only All other vessels – commercial vessel standards, including survey	Commercial vessel standards, including survey

These differences make it more difficult for boat builders and designers to design and build for a national marketplace.

2.3. Piecemeal presentation of requirements

The specification of requirements in regulations, as often occurs for vessels within the scope of the proposed standard, inhibits a proper comprehension of the function and grading of the requirements. It also prevents the requirements from being updated on a timely basis to reflect changes in technology and/or changing community expectations.

Standards are generally more easily amended and kept up to date and are more accessible than regulations, making them more transparent.

2.4. Not a risk-based approach

2.4.1. A higher level of regulation

As set out in Table 1, some jurisdictions currently apply commercial vessel standards to some or all vessels within the scope of the proposed standard.

According to a report on commercial vessel incidents, *Commercial Vessel Marine Incidents in Australia 2005 – 2008*¹⁰ (published by the NMSC), there were 2,760 reported incidents in Australia involving commercial vessels between 2005 and 2008. Vessels less than or equal to 7.5 metres accounted for 46 percent of the total fleet considered by the report and yet accounted for:

- ▶ 16 percent of all commercial vessels involved in reported marine incidents;
- ▶ 12 percent of all fatalities resulting from commercial vessel incidents, an average rate of less than 1 fatality per 1,000 vessels - far below the average fatality for all the other vessel length groups; and
- ▶ 20.5 percent of all commercial vessels involved in incidents that resulted in serious injuries.

Table 2 — Incidents involving commercial vessels under 7.5 metres 2005 - 2008

	Commercial Vessels < or = 7.5 m
Total vessels	9041
Proportion of Fleet	46% (at minimum)
Vessels involved in reported incidents	61
Proportion of reported incidents involving commercial vessels	16%
Vessels involved reported serious injuries	11
Proportion of reported serious injuries involving commercial vessels	20.5%
Vessels involved reported fatalities	2
Proportion of reported fatalities involving commercial vessels	12%

Note: The figures in Table 2 do not take into account vessels that are not registered or surveyed. They also do not account for the different classes of vessels.

As shown in Table 2, the results indicate that vessels of shorter lengths are less often involved in incidents, fatalities and serious injuries, than those with longer lengths. The *Commercial Vessel Marine Incidents* report stated:

¹⁰ National Marine Safety Committee, November 2009

The study reveals that commercial vessels with longer lengths were more risky in terms of being involved in incidents, fatalities and serious injuries in Australia over the four-year period.

Given the generally lower risks of vessels less than or equal to 7.5 metres, it may be inappropriate to apply commercial vessel standards and survey requirements to these vessels. The costs of complying with traditional commercial vessel standards and survey requirements are significantly higher than the proposed standard or recreational vessel standards (see Sections 7 – 9 of this RIS) and these costs are not justified by the risks of the vessels, as described above.

In addition, the proposal does not impact on all vessels equal to or under 7.5 metres in length. Rather, the proposed standard would only apply to those operating in smooth (E) or partially smooth (D) waters (i.e. sheltered waters)¹¹, as well as some sail training vessels in inshore operations. As detailed in Chapter 5, the NMSC estimates that there are around 7,600 existing vessels under or equal to 7.5 metres operating in smooth or partially smooth waters. On this basis, it is estimated that around 520 new vessels per year would be affected by the proposed standard.

In general, the vessels within the scope of the proposed standard are at the lower-risk end of the small vessel spectrum (i.e. only those vessels operating in smooth or partially smooth waters), reducing further the justification for applying a traditional commercial vessel standard and survey regime.

The fact that traditional commercial vessel standards are not appropriate for all vessels within the application of the proposed standard is evidenced by the reliance in many jurisdictions on issuing exemptions. This includes exemptions from:

- the application of aspects of the standards (e.g. exemptions from first aid kit and marine radio requirements – see Section 7 of this RIS);
- vessel survey (e.g. in Tasmania and Western Australia, some vessels within the scope of the standard can apply for an exemption from survey); or
- the commercial vessel standards as a whole (e.g. recreational training vessels in Victoria and South Australia can obtain exemptions from the application of commercial vessel standards).

Where exemptions are issued on an ad-hoc basis and their terms are not publicly available, they reduce the transparency of the regulations and increase compliance costs (due to the costs associated with applying for and negotiating an exemption). While, in some jurisdictions, the exemptions are contained in regulations or notices that are publicly available, even this form of exemption increases the complexity of the regime. The implementation of a scaled, risk-based regime through regulations and standards would improve the status quo by removing the need for the vast majority of exemptions.

2.4.2. A lower level of regulation

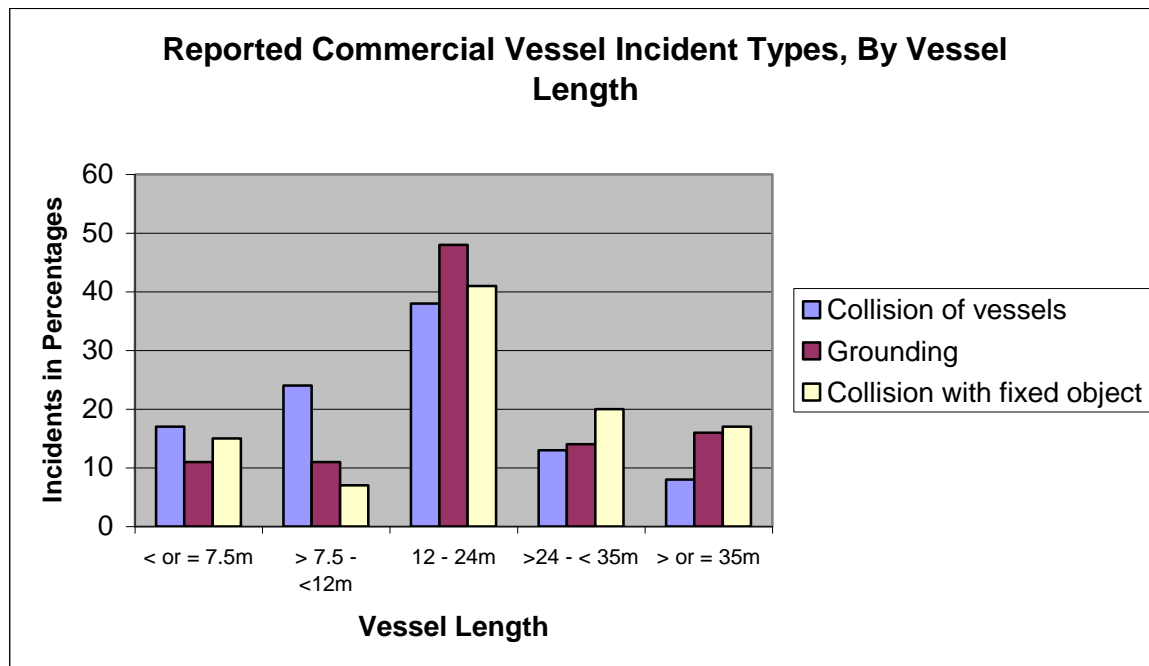
At the other end of the spectrum are jurisdictions that apply only basic recreational vessel requirements to vessels within the scope of the proposed standard.

¹¹ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

Basic recreational vessel requirements in Australia do not include a requirement for level flotation. This means that, in some jurisdictions, commercial vessels would be permitted to operate with only basic flotation. Yet, globally, level flotation has been accepted as essential to mitigate the impact of collisions, swamping and grounding.

Although vessels at this end of the commercial fleet are involved in fewer and less serious incidents than the rest of the fleet, there remains a risk associated with their operations. As shown in Figure 1, according to the report: *Commercial Vessel Marine Incidents in Australia 2005 – 2008*¹² (published by the NMSC), commercial vessels less than or equal to 7.5 metres were involved in 17 percent of reported collisions between vessels, 11 percent of reported vessel groundings and 15 percent of reported collisions with a fixed object. Basic standards for buoyancy, stability and maximum load and power, which do not currently apply to all vessels within the scope of the proposal, would assist to prevent or mitigate the outcomes of collision and grounding.

Figure 1 – Reported commercial vessel incident types, by vessel length



This RIS is not attempting to assert that the lower level of regulation applied to some vessels within the scope of the proposed standard in some jurisdictions has caused a significant safety impact to date. Indeed, the low number of incidents (and in particular the low level of significant hull failures) associated with these vessels, in the jurisdictions that have not applied commercial vessel standards and/or survey requirements, has provided the impetus to agree a nationally-consistent approach to these vessels that does not involve requiring the vessels to undergo survey.

However, the fact remains that the operations of these vessels are not without risk. In the US and Europe, level flotation is mandatory for outboard powered recreational vessels that are equivalent in size and operation to many of those commercial vessels that fall within the scope of the proposed standard. In other words, recreational vessel

¹² National Marine Safety Committee, November 2009

requirements in Australia permit arrangements that would not be accepted for recreational vessels in the UK or Europe.

As such, the application of these recreational vessel requirements to commercial vessels within the scope of the proposed standard (as currently occurs in some jurisdictions) may not reflect a risk-based approach. Basic flotation may be appropriate in a recreational boat where members of the public are free to make choices at the time of purchase about the level of risk they are prepared to accept. However, for a commercial vessel, it may be inappropriate to leave that level of risk to the vessel owner. Members of the public hiring the vessel (in the case of Class 4 vessels) or employees working on the boat (in the case of Class 2 and 3 vessels) are not in a position to control those choices and would be relying on the regulations and standards applying to the commercial vessel to establish the acceptable safety benchmark.

3. OBJECTIVE OF THE PROPOSAL

The objective of the proposal is to control risks to persons on a small vessel engaged in low-risk operations by:

- ▶ Taking into account the particular nature and area of operations of each individual vessel;
- ▶ Creating an environment for persons on board a vessel that reflects current community expectations for safety;
- ▶ Providing a consistent and auditable benchmark for determining initial and ongoing compliance of a vessel to the standard;
- ▶ Reflecting advances in technology and scientific understanding; and
- ▶ Providing a standard that can be easily implemented by marine authorities on a consistent basis.

As outlined in Section 2 above, it is not clear that the current situation achieves these objectives.

4. STATEMENT OF OPTIONS

4.1. Overview of the options

A number of options are considered in this RIS for the maintenance of commercial vessel safety for vessels identified in Section 1.4. These options are:

- ▶ Option 1: Status Quo (existing State and Northern Territory requirements);
- ▶ Option 2: The [National Standard for Commercial Vessels \(NSCV\)](#);
- ▶ Option 3: Recreational vessel standards; and
- ▶ Option 4: The proposed standard - the National Standard for General Safety Requirements for Vessels.

Table 3 – Overview of the Options

	Description
Option 1: Status Quo	A mix of commercial vessel standards (the NSCV) and recreational vessel equipment standards [see Table 1]
Option 2: NSCV	A performance-based standard intended to be applied within a survey regime
Option 3: Recreational Boating Standards	Application of the ABP Standard and the Recreational Boating Equipment Standard
Option 4: Proposed Standard	Reflects recreational boating standards with additional requirements where warranted by the risk (such as level flotation for more risky vessel types)

4.2. Option 1: Status Quo based on State and Northern Territory requirements

This option would see the retention of the current State and Northern Territory requirements for the regulation of vessels identified in Section 1.4.

The status quo is the current mix of commercial vessel standards (the [NSCV](#)) and recreational vessel equipment requirements and other jurisdiction-specific requirements. See Table 1 for a detailed breakdown of the status quo.

4.3. Option 2: Apply the NSCV

Option 2 means that the [NSCV](#) would be applied to vessels within the scope of the proposed standard. The [NSCV](#) is a performance-based standard that was developed for the Australian domestic commercial fleet to provide a national standard for commercial vessels in survey operating in Australia.

4.3.1. Performance based standards and survey

Where a vessel is built 'in survey' the vessel's design and construction phases are generally subject to inspection and approval by marine surveyors working on behalf of a regulatory authority. This process is used to mitigate the risks associated with vessels that operate well away from safe havens, where any flaws in the design and construction of a vessel may have catastrophic consequences.

The [NSCV](#) has been developed in the survey context. Where a vessel's design must first be approved by a government appointed marine surveyor, prior to construction, safety outcomes can be expressed at a high level with only one method of meeting the outcomes specified in the standard. Alternative approaches are permitted, provided they can be benchmarked against the specified solution, with the surveyor making the determination as to whether or not equivalency has been achieved. It is this performance-based approach that is taken by the [NSCV](#).

Standards not designed to be applied through a survey regime must stand alone and set out in detail all of the approaches that are deemed to be acceptable. The flexibility afforded by a performance-based standard is not essential for smaller vessels which tend to have less scope for complex innovations in their design.

As the [NSCV](#) is a performance-based standard, the application of the [NSCV](#) assumes that the vessels will be designed within a survey regime.

4.4. Option 3: Apply recreational vessel standards

Option 3 requires the application of recreational vessels standards to commercial vessels within the scope of the proposed standard.

There are two national standards for the safety of recreational boats that have been developed under the 1997 IGA, namely:

- a) The [National Standard for the Australian Builders Plate for Recreational Boats \(ABP Standard\)](#); and
- b) The [National Standard for Recreational Boat Safety Equipment \(NSRBSE\)](#).

These standards are loosely aligned with mandated requirements applying in all Australian States¹³ for recreational boats. The standards refer to technical standards that provide detailed specifications for design and construction and equipment suitable for use with recreational boats.

For vessel design, there is also the option of applying, in lieu of the [ABP Standard](#), a stand-alone technical standard such as [AS 1799.1](#).¹⁴

However, applying a specific technical standard (e.g. [AS 1799.1](#)) would effectively exclude many boats currently on the Australian market that are built to comply with either the American (ABYC) or European (ISO) standards, even though they have proven to be satisfactory in service. This is because the requirements of a specific technical standard may be more lenient on one aspect, such as static stability, and more onerous on another, such as assumed mass of passengers. As a result, a boat built to meet the ABYC standard may not comply with [AS 1799.1](#) and vice versa, even though the two boats are similar in terms of safety outcomes.

There is an increasing trend to purchase boats within the scope of the proposed standard on line, from the USA and Europe. As a consequence, the size of the boat manufacturing industry in Australia has diminished significantly. The size of their manufacturing industries combined with the current strength of the Australian dollar means that boats sourced from the USA or Europe are typically much lower in price than equivalent quality Australian-made boats. Because Australia is a very small part of the world market, no European or US manufacturers build boats to comply with [AS 1799.1](#).

¹³ Recreational boats are not subject to any vessel requirements in the Northern Territory.

¹⁴ A vessel that complies with AS1799 will also comply with the ABP Standard. However, a vessel that complies with the ABP standard may not comply with AS1799.

Given the global nature of the market for production boats up to 7.5 metres in length, the application of a single technical standard for construction would establish an unacceptable barrier to trade and would significantly diminish competition in Australia. This anticompetitive aspect was recognised during the development of the [ABP Standard](#), and as a result, the [ABP Standard](#) permits several options. These include the use of [AS 1799.1](#) or the technical standards used in North America and Europe.

Technical standards from around the world provide a valuable reference to acceptable solutions for the vessels they cover and have been permitted (where relevant) as options in the proposed standard. However, direct adoption of a single technical standard is not a viable option.

Therefore, Option 3 involves the application of the [ABP Standard](#) and the [NSRBSE](#).

4.5. Option 4: The proposed standard, the National Standard for General Safety Requirements for Vessels

4.5.1. The content and approach of the proposed standard

The proposed standard was developed through a review of the existing State and Northern Territory requirements for commercial vessels identified in Section 1.4. (i.e. those less than 7.5 metres in length operating in sheltered waters¹⁵ in low-risk operations and recreational training vessels). It also draws upon the approaches taken in the [ABP Standard](#) and the [NSRBSE](#), including targeting the key elements associated with preventing fatalities and serious injuries as indicated in the regulatory impact statements for those standards.

The proposed standard includes reference to a range of technical standards that provide detailed specifications for craft and equipment.

Importantly, the standard is drafted so that it can be applied by a boat builder or operator without the need for input from a government appointed marine surveyor. This will facilitate the intended approach set out in the *National Approach to Maritime Safety Reform: Consultation RIS* and [Section 4 of NSAMS](#), whereby commercial vessels within the scope of the proposed standard are not required to undergo survey.

The content of the proposed standard is illustrated by the list of Chapters:

Chapter 1	General
Chapter 2	Minimum Safety Requirements
Chapter 3	Vessel Design
Chapter 4	Standards for Equipment
Annex A	Evidence of Compliance

4.5.2. The requirements contained in the proposed standard

Tables 4, 5 and 6 below are extracted from the proposed standard and provide a summary of the requirements that apply to vessels within the scope of the proposed standard.

¹⁵ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

Table 4 — Safety Equipment and Design Standards for Specified Vessels

Type of vessel	Safety equipment requirements	Design requirements
Personal Watercraft (PWC)	As specified in Tables 5 and 6	Clause 3.7 (of standard)
Sailboard or kite surfer ¹⁶	A Level 50 or Level 50S PFD shall be provided for each person when operating more than 400 m from the nearest shore.	Nil
Sailing vessel less than 7.5m in length not fitted with an engine.	A Level 50 PFD shall be provided for each person on board when operating on smooth or partially smooth waters. When operating beyond smooth and partially smooth waters, the equipment specified in Tables 5, 6 and 7. A bucket or bailer shall be carried unless the vessel is constructed to be fully self-draining.	Nil
Canoes, kayaks, dragon boats and other human powered craft	A bailer or bilge pump shall be carried unless the vessel is fully self-draining. A Level 50 PFD shall be provided for each person when operating on smooth or partially smooth waters. A Level 100 PFD shall be provided for each person when operating on beyond smooth and partially smooth waters.	Nil
Vessel less than 7.5m in length fitted with an engine, including a tender	As specified in Tables 5 and 6.	Level flotation Maximum load capacity Engine power rating Fuel systems
Vessel equal to or greater than 7.5m in length, fitted with an engine.	As specified in Tables 5 and 6.	Maximum load capacity Engine power rating Fuel systems
Inflatable surf rescue boat fitted with an engine operating within 2 nautical miles of the shore.	Paddles or oars shall be carried	Nil
Tender not fitted with an engine	The following equipment shall be carried onboard: A Level 50 PFD for each person on board. A bucket or bailer. A painter suitable for towing the tender	Nil

¹⁶ May not be relevant in some jurisdictions if the proposed standard was implemented through State and Territory law, depending on the jurisdiction's definition of vessel

Table 5 — Required Equipment for Vessels in Various Operational Areas

Item	Quantity	Notes	Area of operation		
			Smooth and partially smooth waters	Inshore up to 2NM from the coast (I)	Other inshore
Anchor with chain and/or line	1		✓	✓	✓
Bilge pump	(B2)		✓	✓	✓
Bucket or bailer	1	(B1)	✓	✓	✓
Compass	1		—	✓	✓
Distress Signal — orange smoke hand-held	2	(D)	—	✓	✓
Distress Signal — red hand-held distress flare	2	(D)	—	✓	✓
Distress Signal — red star parachute distress rocket	2		—	—	2nm
Drinking water	2L per person		—	✓	✓
EPIRB	1		—	—	2nm
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)	✓	✓	✓
Paddles or oars/rowlocks able to effectively propel the vessel	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 shall 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 shall be carried on remote enclosed waters where assistance is not readily available.

(F1) Fire extinguishers shall be provided 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 shall 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 less than 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 of the standard. This provision will not affect new vessels which are required to comply with Chapter 3 of the standard.

Table 6 — Personal Flotation Devices

Item	Quantity	Area of operation	
		Smooth and partially smooth waters	Inshore
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 shall be carried for each person onboard the boat.
- (J) For personal watercraft, only a Level 50 or Level 50S PFD shall be used.

5. SCOPE OF VESSELS IMPACTED

5.1. Scope of application

As set out in Section 1.4, the proposed standard has been developed to apply to those commercial vessels not subject to the [NSCV](#), as identified in the *National Approach to Maritime Safety Reform: Consultation RIS* and [Section 4 of NSAMS](#).

This includes all vessels less than 7.5 metres in length, except:

- Vessels undertaking (A) unlimited domestic operations, (B) offshore operations or (C) restricted offshore operations;
- Vessels carrying passengers ('passengers' does not include users of hire and drive vessels);
- Vessels used primarily for towage;
- Vessels carrying bulk petroleum, gas products or other dangerous goods;
- Certain vessels fitted with a crane or davit;
- A support vessel in the offshore oil industry; and
- Hire and Drive vessels of any length undertaking overnight operations.

It also includes vessels that are used by sailing schools, registered training organisations, and the like, when training members of the public to gain recreational boating qualifications on a fee for service basis. Recreational boating qualifications include those associated with gaining a licence to operate a motorised recreational vessel and those recognised by a sporting body (such as the Royal Yachting Australia (RYA) qualifications overseen by Yachting Australia). These training vessels could be of any length up to 24 metres and may operate in waters beyond those designated as smooth (E) or partially smooth (D), provided they remove in inshore operations.¹⁷

However, large sail training ships over 24 metres in length (where up to 100 cadets at a time are trained in seamanship while undertaking ocean voyages) are beyond the scope of the proposed standard, as are any training vessels that operate beyond inshore operations.

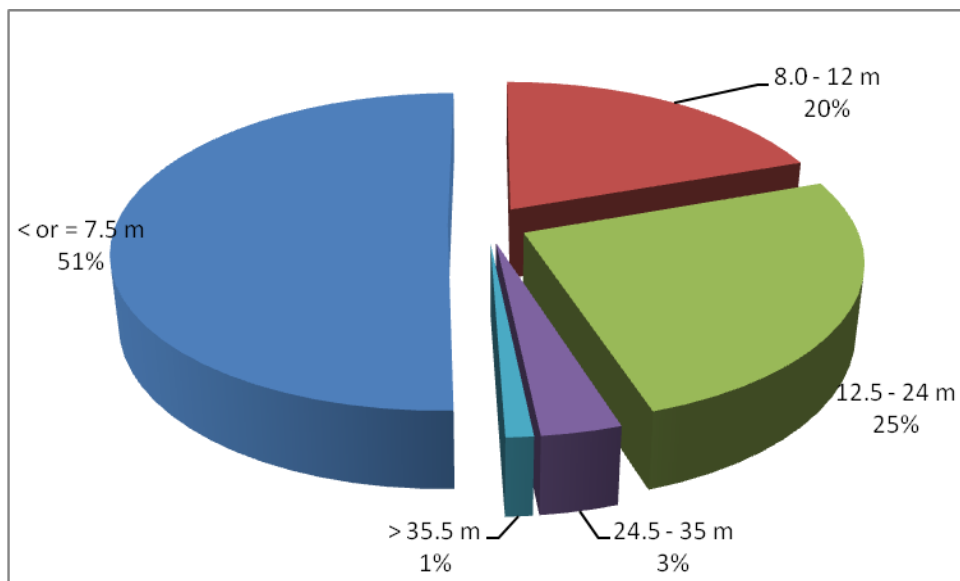
5.2. Existing vessels

Of the vessel types outlined in Section 5.1 above, only the equipment requirements of the proposed standard would apply to existing vessels.

According to data provided to the NMSC by each State and the Northern Territory marine safety agencies, there are currently 17,819 individual vessels operating in Australian domestic waters.¹⁸ In 2011, according to NMSC data, those vessels which are 7.5 metres or less in length make up 51 percent of the fleet (see Figure 2) – i.e. around 9,087 vessels. However, this does not include those vessels that are exempted from full survey in Western Australia. It is estimated that there are around 975 of these, bringing the total to 9,487 or 53 percent of the fleet.

¹⁷Inshore operations are defined as '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 designated sheltered water limits; or within such lesser limits as may be specified.

¹⁸This figure represents individual vessels and does not include those vessels not currently registered or surveyed.

Figure 2 – Australian Fleet by Length¹⁹

When the fleet is broken down by jurisdictions, approximately 38 percent of vessels in the 7.5 metre or less group operate in New South Wales and 33 percent operate in Queensland. A further 9 percent operate in Victoria and 8 percent in Tasmania. See Table 7 below.

Of the 53 percent of vessels less than 7.5 metres, the NMSC estimates that there are around 7,574 vessels operating in smooth (E) or partially smooth (D) waters²⁰, or 40 percent of the commercial vessel fleet.

The 7,574 figure is likely to be on the higher side of the number of existing vessels impacted by the proposed standard. Vessels are often accredited to operate in multiple operation areas or classes depending on circumstances, and as such are duplicated in the figures.²¹ In addition, as outlined in Section 5.1 above, not all vessels 7.5 metres or less in length in smooth (E) or partially smooth (D) waters are within the scope of the proposed standard. Finally, the additional 975 vessels operating in Western Australia is only an estimate, as these vessels are exempt from survey and as such are not captured in the official figures.

However, the standard also applies to some recreational training vessels. The number of these vessels that are larger than 7.5 metres and operate beyond smooth (E) or partially smooth (D) waters would number in the hundreds around the country.

¹⁹ National commercial vessel database, National Marine Safety Committee, 2011

²⁰ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

²¹ This often complicates analyses of the commercial fleet due to the duplication of numbers. For example when broken down by class there are 20,762 vessels.

Table 7 – Vessels < or = 7.5 Metres in D and/or E Waters²²

Vessel Class	Jurisdiction							Total
	NSW	NT	QLD	SA	TAS	VIC	WA	
1F (Hire and Drive)		2	768	2		385		1157
2D (Non-Passenger)	194	125	773	17	59	119	28	1315
2E (Non-Passenger)	1882	14	883	16	83	151	38	3067
3D (Fishing)	11	2		37	71	55	1	177
3E (Fishing)	811			2	35	23		871
4D (Hire and Drive)					3		475 <i>Estimate only</i>	478
4E (Hire and Drive)	61				26		22	109
Total	2959	143	2424	74	277	733	975 <i>Including an estimated 400 vessels in WA that are exempt from survey</i>	7,574

5.3. New vessels

The proposed standard would apply to all new vessels of the type outlined in Section 5.1 above.

It is estimated that up to 1,300 commercial vessels enter the commercial vessel fleet each year. Given that approximately 40 percent of the fleet are less than 7.5 metres and operate in D and E waters (i.e. sheltered waters), we estimate that up to 520 new vessels may be impacted by the proposed standard each year.

Once again, this estimate is at the higher side and considered a maximum, particularly given that some higher risk operations are excluded from the application of the proposed standard and that some vessels may be accredited to operate in multiple operational areas.

It is difficult to corroborate this estimate with annual vessel sales figures. In particular, manufacturers simply do not release sales data. The Boating Industry Alliance of Australia – a primary representative of this group – confirmed sales data is not available for reasons of commercial sensitivity.

However, the existing fleet data outlined above and the estimates regarding fleet turnover, has been compared against information provided by jurisdictions on the number of new vessels within the scope of the standard being registered or surveyed. This data indicates that 500-600 new vessels within the scope of the proposed standard are entering the fleet each year. This aligns with the 520 estimate provided above.

²² This table includes 1F vessels which is the USL code designation for Hire and Drive vessels. In the National Standard for Commercial vessels (NSCV) these are now designated as Class 4 vessels.

6. IMPACTS OF OPTION 1: STATUS QUO

6.1. The costs and benefits of the status quo

The continuation of this option means no changes in the existing requirements. As such, no additional compliance costs will be incurred.

However, there are lost opportunities to reduce costs associated with Option 1. Inconsistencies in requirements between jurisdictions pose a barrier to interstate trade and to the free movement of vessels around Australia, reducing competition in the marketplace.

In some jurisdictions, small, low-risk commercial vessels may currently be over-regulated – this is explored under the analysis of ‘Option 2’ in Section 6.

In other jurisdictions, these vessels may be under-regulated. This is explored under the analysis of ‘Option 3’ in Section 7.

The status quo also does not adequately provide for the recreational training sector. This is explored under the analysis of ‘Option 2’ in Section 6.

As there is currently no nationally-agreed standard for the regulation of vessels within the scope of the proposed standard, jurisdictions often rely on issuing exemptions to these vessels from the application of commercial vessel standards. The costs associated with relying on arbitrary exemptions from compliance with legal requirements are considered in Section 6.

6.2. National agreement to a single national approach

As Transport Ministers have agreed to a single national approach to maritime legislation, a nationally consistent set of standards for all vessels within the scope of the national law is desirable. This is achieved for a large proportion of the commercial fleet through the uniform application of the [NSCV](#), but for the vessels described in Section 5.1, no standards have been specified.

Therefore, under Option 1, there would remain different requirements in each jurisdiction, and the single national approach agreed by Ministers would not be achieved.

6.3. Conclusions: Option 1

Retaining the existing State and Territory requirements in their current form is not the preferred option.

7. IMPACTS OF OPTION 2: APPLY THE NSCV

7.1. The costs and benefits of applying the NSCV

Option 2 must be assessed against the base case, or the status quo. As the status quo is different in each jurisdiction, this requires considering the impact of Option 2 against all the existing scenarios, namely:

- ▶ the impact in jurisdictions that apply commercial vessel construction and equipment standards to vessels within the scope of the proposed standard (Victoria, Tasmania and Western Australia (for some vessels));
- ▶ the impact in jurisdictions that apply commercial equipment standards and recreational vessel requirements to some of these vessels (certain vessels in Queensland, Western Australia and the Northern Territory); and
- ▶ the impact in jurisdictions that apply recreational vessel requirements only to some of these vessels (certain vessels in NSW, the Northern Territory, Queensland, South Australia and Western Australia).

The impact of Option 2 against these three scenarios is considered in the following subsections.

A jurisdiction-by-jurisdiction review of the impact of Option 2 is provided in Section 7.2 below.

7.1.1. The impact in jurisdictions that apply commercial vessel construction and equipment standards

The [NSCV](#) now applies around Australia. As such, there are no costs or benefits for those jurisdictions that already apply commercial vessel survey standards, as the [NSCV](#) is the commercial vessel standard used in survey.²³

However, some jurisdictions do not require vessels within the scope of the proposed standard to be in survey (i.e. to be surveyed initially and possibly periodically) despite applying commercial vessel construction and equipment standards to the vessels. As such, Option 2 increases costs in these jurisdictions due to the initial survey requirements. The costs and benefits of survey are considered below.

a. Survey costs

There are costs to industry and government associated with surveying vessels.

Fees charged for vessel survey vary widely around Australia by jurisdiction and survey type. Table 8 sets out the current (2011-2012) fees for plan approval, initial survey and (where relevant) periodic survey for vessels in the scope of the standard. Only Western Australia and Victoria require some vessels within the scope of the standard to be subject to periodic survey.

²³ Some jurisdictions apply the USL Code to new commercial vessels, but for all intents and purposes the various sections of the USL Code relevant to this RIS have been replaced by the equivalent section of the NSCV through amendment of the USL Code.

Table 8 – Survey Fees by Jurisdiction

Jurisdiction	Survey fees – vessels < 7.5 metres (excluding GST)
Northern Territory	New vessel plan approval - \$92.73 per metre New vessel construction survey - \$34.55 per metre
NSW	Survey - \$147 per metre For production vessels, prototype approval is \$147 per metre and then the initial survey for each vessel is \$76 per metre.
South Australia	Initial survey - < 5m - \$535; 5 – 6m - \$414; 6 – 7m - \$475; 7 – 8 m - \$539
Tasmania	Design approval \$117.60 per hour Construction inspection \$117.60 per hour Plus travel costs
Western Australia	Examination of Plans for non-type-approved powered vessels exceeding 5 metres: 5 – 6m - \$730; 6 – 7m - \$794; 7 – 8 m - \$1,025 Initial Survey for non-type-approved powered vessels exceeding 5 metres: 5 – 6m - \$1,220; 6 – 7m - \$1,719; 7 – 8 m - \$2,282 Stability fees for non-type approved powered vessels exceeding 5 metres (note that generally simplified criteria apply): \$977.80. Annual Survey for powered vessels exceeding 5 metres: 5 – 6m - \$309; 6 – 7m - \$376; 7 – 8 m - \$407. Annual Hire and drive survey fees for specified vessel types: Power boats not exceeding 5 m (jet ski's, powered dinghies etc) - \$120.10 Sailing boats other than sailboards - \$120.10 Boats propelled exclusively by oars or paddles - \$77.30 For vessels seeking type approval: For powered vessels exceeding 5 metres: Same fees as above for non-type-approved vessels exceeding 5 metres for the first type approved vessel, and following identical vessels built to the same plans are not charged plan approval fees. For all other vessels seeking type approval: Where inspection and/or testing of the type approved vessel is required, \$977.80 plus a Certificate fee of \$142.90. Where inspection and/or testing is not required (some vessels require only basic information available in a brochure or by the builder/owner conducting basic operational testing) \$195.80 plus a Certificate fee of \$142.90.
Victoria	Initial survey (including plan approval): \$93.80 + 118.14 per metre Annual survey: > 5 m - \$237.45; 5m – 7.5m - \$328.86

Fees for an initial compliance certificate in Queensland are set by the private sector. In addition, the builder of the vessel may be accredited to issue the initial compliance certificate. As such, no or minimal additional costs may be incurred as a result of the

requirement to obtain the certificate. For these reasons, the Queensland fees have not been included in the table.

It should be noted that, in jurisdictions where the authorities do not operate on a full cost-recovery basis, survey fees do not reflect the total cost of survey to society. It is understood that Western Australia and Tasmania do operate on a cost recovery basis (or achieve close to cost recovery). Survey fees vary significantly between these two jurisdictions:

- ▶ In Tasmania, the total cost of initial survey is at least \$235.20 for all vessels in the scope of the proposed standard, regardless of length, depending on the time taken for design approval and the construction inspection.
- ▶ In Western Australia, the highest total cost of initial survey for a 7.5 metres vessel is \$4,284.80 (\$1,025 plan approval + \$2,282 initial survey + \$977.80 stability fees), while the lowest total cost for a vessel (a hire and drive paddle boat) is \$77.30.

These figures have been adopted as the range of the cost of survey to society.

On top of the survey costs, there are also costs to industry resulting from the delays inherent in the survey process. When a vessel is built in survey, the builder must wait for approval from a surveyor before being allowed to move to the next stage of construction.

b. Benefits of a performance-based standard and survey regime

There are benefits associated with a performance-based standard and the oversight provided by a surveyor.

The [NSCV](#) contains required outcomes that can be met either through:

- ▶ Deemed-to-satisfy solutions contained within the standard. The benefit of adopting a deemed-to-satisfy solution is that there is no onus on the applicant to prove compliance with the corresponding performance standard; or
- ▶ Equivalent solutions. These are solutions proposed by the applicant that achieve the required outcomes by means other than that which is deemed-to-satisfy. An equivalent solution must be “proven to satisfy” the required outcomes, either directly or by showing its performance is at least equivalent to that of the deemed-to-satisfy solution.

The benefit of the performance-based nature of the [NSCV](#) is that it greatly increases the options available for achieving the required outcome. This allows for innovation and the adoption of new technology, while still providing a prescriptive alternative for designers, builders, owners and operators who wish to utilise them.

However, the vast majority of commercial vessels that are less than 7.5 metres operating in sheltered waters²⁴ are production vessels built for a mass market in order to keep costs down. Builders of these vessels tend to employ a typical well-proven arrangement, such as an open boat, a cuddy cabin, a centre cabin or a rigid hull inflatable boat, that has a wide range of different applications. In contrast, larger vessels tend to be one-off designs built to the operator’s specification for a specific purpose.

Although smaller vessels are catered for within the [NSCV](#), there is minimal scope in such small vessels for the type of customisation and innovation that is typically associated with larger, individually designed craft. As a consequence, the benefits of

²⁴ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are ‘sheltered waters’

design innovation that flow from the performance-based nature of the [NSCV](#) are unlikely to accrue for vessels within the scope of the proposed standard.

In addition, the need for the close scrutiny of construction, associated with the survey process, extends from the fact that ships often operate well away from safe havens. As a result, flaws in the design and construction of a vessel may have catastrophic consequences. However, vessels in the scope of the proposed standard will not be subjected to the rigours of the open ocean and are always within easy reach of a safe haven. As such, it is not essential for vessels within the scope of the proposed standard to be in survey.

7.1.2. The impact in jurisdictions that apply commercial vessel equipment standards and recreational vessel requirements

Option 2 entails the application of the construction and equipment requirements of the [NSCV](#). For jurisdictions that currently do not apply commercial vessel construction standards, there will be costs (and benefits) in applying the [NSCV](#) primarily associated with:

- ▶ Survey;
- ▶ Hull scantling requirements;
- ▶ Stability analysis;
- ▶ Enhanced machinery requirements; and
- ▶ Administrative costs for the builder associated with placing the vessel in survey.

The costs and benefits associated with the physical process of surveying vessels were outlined above. This section considers the costs and benefits associated with the scantling requirements, stability analysis, machinery requirements and the additional administrative costs associated with vessel survey.

a. Hull scantling, stability analysis, machinery and administrative costs

Breaking down the individual component costs of the construction requirements of the [NSCV](#) is difficult as these will vary from vessel to vessel. It is more relevant and practical to look at the overall costs associated with purchasing a typical vessel built to the [NSCV](#) and in survey, as compared to one built to a recreational standard and not in survey.

Builders and operators indicated that the cost of a vessel in survey built to the [NSCV](#) is 25 – 30 percent higher than the cost of an equivalent vessel built to a recreational standard outside of survey.²⁵

This estimate was borne out by research on vessel costs. A 5.5 metre Amara ‘sports rider’ boat (plate aluminium), built in survey, costs around \$37,000 (not including the engine or trailer).²⁶

A slightly larger Stessl production vessel, a 5.8 metre ‘Stessl 560’ boat (plate aluminium) not built to survey, costs around \$28,000 (not including engine or trailer), or 25 percent less than the Amara.²⁷

For vessels within the scope of the standard, the cost impact of applying the [NSCV](#) associated with hull scantling, stability analysis, machinery and administrative costs is estimated to be in the range of \$5,000 - \$15,000 per vessel for a typical vessel.

²⁵ Personal correspondence with Anthony Gelfius, Principal of Boab Boat Hire.

²⁶ See Amara website: <http://www.amaraboats.com.au/>

²⁷ See <http://www.trailerboat.com.au/news-and-reviews/article/articleid/74650.aspx>

7.1.3. The impact in jurisdictions that currently apply recreational vessel requirements

For jurisdictions that currently only apply recreational vessel requirements, there will be costs (and benefits) in applying the [NSCV](#) associated with:

- ▶ Survey;
- ▶ Commercial vessel scantlings,
- ▶ Stability assessment,
- ▶ Machinery requirements; and
- ▶ Commercial equipment requirements.

The costs and benefits associated with surveying vessels, scantlings, stability assessments and machinery requirements were outlined above. This section considers the costs and benefits associated different equipment requirements.

a. Additional equipment requirements

Although recreational equipment standards vary around Australia, in general there are three key areas of difference between recreational and commercial standards for vessels within the scope of the proposed standard: fire extinguishers, first aid kits and marine radios.

However, in jurisdictions that currently apply the [NSCV](#) to vessels within the scope of the proposed standard, it is understood that exemptions from the first aid kit and marine radio requirements of the [NSCV](#) are generally issued and/or the level of compliance to the [NSCV](#) is low. As such, it is assumed that, should the [NSCV](#) be applied, exemptions would continue to be given in regards to the [NSCV](#)'s first aid kit and marine radio requirements.

However, there are costs associated with issuing exemptions. Exemptions are not transparent and entail higher compliance and administrative costs than the clear specification of appropriate requirements.

In regards to fire extinguishers, under both standards, fire extinguishers must be carried where fuel is carried, a battery is carried, there is a gas installation or there is a fuel stove. However, the size of the extinguisher would be greater under the [NSCV](#) requirements, reflecting the fact that a professional mariner will be competent to fight a larger fire because he or she will have undertaken a training course in fire-fighting. Typically, for an open 6 metre outboard-powered boat without any cooking facilities, this would be the difference between carrying a 1kg (RRP \$39.95) and a 2.5kg (RRP \$87.00) dry powder extinguisher.²⁸ Thus, the costs per vessel are in the order of \$50 for a typical vessel.

7.1.4. Recreational training vessels

A recreational training boat is, by most definitions, a commercial vessel. However, a vessel built to commercial standards will not be suitable for training people in the use of recreational boats. A vessel built to a commercial vessel standard has some different characteristics to a recreational vessel. For example, its controls will be designed to be operated by a professional crew and may include functions not normally found on recreational boats. In addition, it is often not possible to replicate some of the safety challenges associated with recreational boats on a vessel that is compliant with

²⁸ Prices quoted in Whitworth Marine 2011 catalogue

commercial vessel standards, because of the commercial vessel's higher stability and the prohibition of arrangements like inboard petrol engines.

Moreover, commercial vessel standards require different bilge systems and one-way valves, bilge alarms and additional safety equipment. If a recreational training vessel complied with these requirements, the vessel would have additional and confusing arrangements that the recreational boater would not be trained to use.

In order to train a recreational boater, the boater is given practical experience in dealing with the challenges they may face while operating a recreational boat. Typically, the qualification is only awarded once the trainee can demonstrate on water that these skills have been mastered. Thus, the training must occur on a vessel built and equipped to a recreational standard and not a commercial standard.

The [NSCV](#) does not include appropriate standards for recreational training vessels. Thus, under Option 2, the recreational training sector could only exist by creating an exemption from compliance with commercial vessel standards. Where exemptions are issued on an ad-hoc basis, and are not publicly available, they reduce transparency and increase compliance costs (i.e. the costs associated with applying for and negotiating an exemption).

7.2. The impact of applying the NSCV

Table 9 provides a jurisdiction-by-jurisdiction breakdown of the impact of applying the [NSCV](#) (including survey of the vessels) to vessels within the scope of the proposed standard.

Table 9 – Impact of Option 2 by Jurisdiction

Jurisdiction	Status quo	Cost Impact of Option 2			Safety Impact
		Equipment	Construction	Survey	
Northern Territory	Vessels in the scope of the proposed standard are generally required to comply with recreational safety equipment requirements. However, hire and drive vessels >7m and trading vessels >5m are subject to the NSCV and survey	Fishing vessels, hire and drive vessels <7m and trading vessels <5m – \$50 per vessel associated with fire extinguisher requirements No impact on hire and drive vessels >7m and trading vessels >5m	Fishing vessels, hire and drive vessels <7m and trading vessels <5m – increased costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on hire and drive vessels >7m and trading vessels >5m	Fishing vessels, hire and drive vessels <7m and trading vessels <5m – \$235.20 - \$4,284 per vessel No impact on hire and drive vessels >7m and trading vessels >5m	Positive safety impact associated with stability assessment requirements for fishing vessels, hire and drive vessels <7m and trading vessels <5m
NSW	< 6 recreational vessel safety equipment requirements and	< 6m – \$50 per vessel associated with fire extinguisher	< 6m – increased costs for scantlings, stability analysis, machinery, and	For all vessels, \$235.20 - \$4,284 per vessel	No impact / minor impact as all vessels currently subject to level

	level flotation > 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements	requirements No impact on other vessels	administration of 25 – 30% per vessel (\$5,000-\$15,000)		flotation
South Australia	Fishing vessels, houseboats and 2E vessels are subject to specific equipment standards and initial inspection. These requirements reflect commercial standards Other hire and drive vessels are subject to recreational equipment requirements 2D vessels are subject to NSCV and survey	Hire and drive vessels (not houseboats) – \$50 per vessel associated with fire extinguisher requirements No impact on other vessels	Hire and drive vessels (not houseboats) – increased costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on other vessels	Hire and drive vessels (not houseboats) - \$235.20 - \$4,284 per vessel Minor impact on other vessels where survey is more costly than the current initial inspection requirements	Positive safety impact for hire and drive vessels associated with stability assessment requirements
Queensland	Fishing vessels are subject to safety equipment requirements <6m hire and drive and trading vessels are subject to positive flotation and commercial vessel equipment requirements >6m hire and drive and trading vessels subject to NSCV and initial compliance certificate requirement	Fishing vessels and tenders – \$50 per vessel associated with fire extinguisher requirements No impact on other vessels	Fishing vessels and <6m hire and drive and trading vessels – increased costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on other vessels	Fishing vessels and <6m hire and drive and trading vessels – initial survey costs of \$235.20 - \$4,284 per vessel Minor impact on other vessels where survey is more costly than the current initial compliance certificate	Positive safety impact for fishing vessels associated with stability assessment requirements

Tasmania and Victoria	<p>The vast majority of vessels within the scope of this standard are currently subject to the NSCV.</p> <p>All vessels are in survey in Victoria</p> <p>Vessels >6m are in initial survey in Tasmania</p>	No impact	No impact	<p>Vessels <6m in Tasmania and trading and fishing vessels in Western Australia – increased costs of \$235.20 - \$4,284 per vessel for initial survey</p> <p>Vessels in Victoria – reduced costs of \$237.45 - \$328.86 per vessel for annual survey</p>	No Impact
Western Australia	<p>Trading and fishing vessels in E waters are currently exempt from the NSCV but are required to have fire extinguishers, metallic fuel tanks and piping, and engine compartment venting.</p> <p>Trading and fishing vessels with 5NM commercial vessel equipment requirements only</p> <p>Hire and drive vessels <5m are exempt from survey but require an annual inspection. These vessels are subject to the NSCV.</p> <p>All other vessels are subject to survey and the NSCV</p>	<p>Trading and fishing vessels in E waters - \$500 per vessel associated with additional bailer or bilge, fire bucket, flares, lifebuoy, torch, sound signal, and VHF radio requirements</p> <p>No impact on other vessels</p>	<p>Trading and fishing vessels in E or within 5NM of coast waters – increased costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)</p> <p>No impact on other vessels</p>	<p>All vessels except hire and drive vessels >5m – increased costs of \$235.20 - \$4,284 per vessel for initial survey</p>	Small safety impact around communications for trading vessels in E waters

For recreational training vessels, there will be new costs in the Northern Territory, NSW Queensland and Tasmania associated with issuing exemptions for recreational training vessels in these jurisdictions. The status quo will continue in South Australia, Victoria and Western Australia.

7.3. Conclusions: Option 2

As shown in Table 9, there are costs associated with applying the [NSCV](#) to these vessels, particularly in the Northern Territory, New South Wales, South Australia, Queensland and Western Australia. These costs are associated with differences in

equipment and construction requirements, as well as the need to put the vessels in survey if the [NSCV](#) was to apply. In summary:

- ▶ The majority of vessels within the scope of the proposed standard in the Northern Territory, NSW, Queensland and Western Australia would face increased costs associated with the requirements of the [NSCV](#) and survey. These costs would be in the order of \$5,735 - \$18,357 per vessel, depending on the value of the vessel and of survey in the jurisdiction (to both the operator and the authority).
- ▶ In South Australia, hire and drive vessels within the scope of the proposed standard would face similar increases in costs (\$5,285 - \$18,350 per vessel).
- ▶ All vessels in Tasmania within the scope of the proposed standard would face increased survey costs of \$235 - \$4,284 per vessel.
- ▶ All vessels within the scope of the proposed standard in Victoria and some hire and drive vessels in Western Australia would see cost savings of \$77.30 - \$407 per vessels due to the removal of the periodic survey requirements. However, other hire and drive vessels in Western Australia would face increases costs of \$235 - \$4,284 per vessel associated with initial survey fees.

The majority of these cost increases would affect new vessels only. There may be some increases in equipment costs for the existing fleet – this would be around \$50 per vessel for the majority of vessels in the Northern Territory, NSW, and Queensland, as well as hire and drive vessels in South Australia and trading vessels in Western Australia.

As outlined in Section 2 of this RIS, the risks associated with vessels less than 7.5 metres operating in sheltered waters²⁹ and engaged in low-risk operations do not justify these increased costs. The lower-risk profile of these vessels is demonstrated by the fact that the States and the Northern Territory already apply different standards and/or survey requirements to these vessels (or issue exemptions from the commercial vessel standards and survey requirements).

In addition, under Option 2, the use of exemptions would be likely to increase in the Northern Territory, NSW, Queensland, South Australia, Tasmania and Western Australia. This is because some of the requirements of the [NSCV](#) are inappropriate for vessels within the scope of the proposed standard (particularly in relation to first aid equipment and marine radio requirements). Relying on exemptions is not desirable, as they reduce the transparency of the regime.

In relation to recreational training vessels, the application of the [NSCV](#) is unworkable. The different equipment and stability levels required by a commercial vessel standard are unsuitable for training recreational boaters. As such, exemptions for these vessels would also need to be issued and alternative requirements identified. There will be new costs in the Northern Territory, NSW, Queensland and Tasmania associated with issuing exemptions for recreational training vessels in these jurisdictions.

For these reasons, the application of the [NSCV](#) is not the preferred option.

²⁹ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

8. IMPACTS OF OPTION 3: APPLY RECREATIONAL VESSEL STANDARDS

8.1. The costs and benefits of applying the ABP Standard and the NSRBSE

As with Option 2, Option 3 must be assessed against the base case, or the status quo, which once again involves considering the impact of Option 3 against all the existing scenarios, namely:

- ▶ the impact in jurisdictions that apply commercial vessel construction and equipment standards to vessels within the scope of the proposed standard (Victoria, Tasmania and for some vessels in Western Australia);
- ▶ the impact in jurisdictions that apply commercial equipment standards and recreational vessel requirements to some of these vessels (certain vessels in NSW, Queensland, Western Australia and the Northern Territory); and
- ▶ the impact in jurisdictions that apply recreational vessel requirements only to some of these vessels (certain vessels in NSW, the Northern Territory, Queensland, South Australia and Western Australia).

In addition, some jurisdictions specifically require vessels within the scope of the proposed standard to have level flotation. As the [ABP Standard](#) permits basic flotation, the additional costs and benefits of level flotation must also be considered.

The impact of Option 3 against these four scenarios is considered in the following subsections.

A jurisdiction by jurisdiction review of the impact of Option 3 is contained in Section 8.2 below.

8.1.1. The impact in jurisdictions that apply commercial vessel construction and equipment standards

Option 3 entails the application of the [ABP Standard](#) and the [NSRBSE](#). For jurisdictions that currently only apply commercial vessel standards (i.e. the [NSCV](#)), there will be cost savings in applying the [ABP Standard](#) and the [NSRBSE](#) associated with:

- ▶ No survey requirements;
- ▶ No hull scantling requirements;
- ▶ Simpler stability requirements;
- ▶ Reduced machinery requirements; and
- ▶ Recreational vessel equipment requirements.

a. No survey costs

The [ABP Standard](#) and the [NSRBSE](#) are stand-alone documents, not designed to be applied through a survey regime. As such, they would not be monitored through a survey regime and survey costs would not be incurred under Option 3. As outlined in Section 7 above, the cost of surveying vessels within the scope of the proposed standard is in the range of \$235.20 to \$4,284.40 per vessel, plus annual survey costs of between \$77.30 and \$400 for some vessels.

This also means that the benefits associated with a performance-based standard and the oversight provided by a surveyor would not be achieved. However, as discussed previously, the benefits of the performance-based approach are minor for the production vessels that would make up the majority of vessels within the scope of the proposed standard. In addition, the need for the close scrutiny of construction (associated with the survey process) is not essential for vessels within the scope of the proposed standard as they operate in close proximity to safe havens.

b. No hull scantling, stability analysis, machinery and administrative costs

As outlined in Section 7 above, builders and operators indicated that the cost of a vessel in survey built to a commercial standard (i.e. the [NSCV](#)) and in survey would be 25-30 percent higher than the cost of an equivalent vessel built to a recreational standard outside of survey. For vessels within the scope of the standard, this is likely to be an increase of \$5,000 - \$15,000 per vessel, for a typical vessel.

c. Recreational equipment requirements

There are, in general, three areas of difference between commercial vessel equipment standards and the [NSRBSE](#): fire extinguisher, marine radio and first aid equipment requirements.

As noted previously, exemptions from commercial vessel standards for marine radio and first aid equipment are generally issued to vessels within the scope of the proposed standard. As such, the costs arise from issuing the exemptions (which reduce the transparency of the regulation), rather than from the requirements.

The [NSRBSE](#) fire extinguisher requirements are for a smaller size than those of the commercial vessel standards (reflecting the fact that a professional mariner will have undertaken a training course in fire-fighting). For a typical open, six metre outboard-powered boat without any cooking facilities, the [NSRBSE](#) reduces fire extinguisher costs by around \$50 per vessel.

8.1.2. Impact in jurisdictions that apply commercial vessel equipment standards and recreational vessel requirements

For jurisdictions that currently apply no commercial vessel construction standards to some or all vessels within the scope of the proposed standard, it is assumed that all vessels would have basic flotation at minimum. This is because basic flotation is permitted under the [ABP Standard](#) and having an ABP is a registration requirement for boats not in commercial registration in most jurisdictions. As a result, manufacturers of production boats normally build to the [ABP Standard](#) when supplying to the national market. As such, there should be no additional costs associated with applying the [ABP Standard](#) in these jurisdictions.

Once again, application of the [NSRBSE](#) in lieu of commercial vessel equipment standards would reduce costs for operators associated with lesser fire extinguisher requirements and the removal of the need to issue exemptions.

8.1.3. Impact in jurisdictions that apply recreational vessel requirements

As outlined at 8.1.2, there should be no additional costs associated with applying the [ABP Standard](#).

On the equipment side, although the [NSRBSE](#) has not been legally applied in any jurisdiction, its essential features were copied into local regulations. The major variation

between the [NSRBSE](#) and current jurisdictional recreational vessel equipment requirements relates to the certification of personal flotation devices (PFDs).

Jurisdictions generally require PFDs to be certified, while the [NSRBSE](#) does not. This difference should not have a significant impact on the commercial sector, which generally sources safety equipment from established suppliers. However, it would permit some purchasing of PFDs privately through the internet, at boat shows and discount bin sales. Past experience has demonstrated that products purchased through these sources have sometimes involved false claims of compliance with standards. Although the safety impact of this may be seen as minor (due to the small number of operators that would obtain non-certified PFDs), the safety impact over the longer term may be significant. However, the NMSC has no data regarding the long term impact of permitting the utilisation of non-certified PFDs.

In addition, as the [NSRBSE](#) has never actually been applied in law, there has been no impetus for it to remain current. Since the standard was first published in 2004, local instruments have been independently updated as new technical standards have emerged, while the [NSRBSE](#) has remain unchanged and become outdated.

For example, the [NSRBSE](#) continues to apply 121.5 MHz EPIRBs which were phased out in 2010, and does not refer to AS 4758 *Personal Flotation Devices*, which in 2008 superseded the old Australian Standards. The impact of this is minor, as equipment built to the superseded requirements is unlikely to be available on the market. However, the application of current standards removes confusion and reduces compliance costs.

8.1.4. Impact in jurisdictions that require level flotation

The [ABP Standard](#) permits basic flotation as the minimum requirement. In some jurisdictions, certain low-risk commercial vessels up to six metres in length are specifically required to have level flotation (a more onerous requirement). However, recreational standards apply in other respects, such as those in the [ABP Standard](#).

a. Level flotation costs

According to a 2010 Royal Institute of Naval Architect presentation, for a typical six metre boat, fitting level flotation in accordance with [AS 1799.1](#) would require 1.99m³ of flotation material and basic flotation would require 1.09m³ of the same material. *Microfen* flotation material costs about \$280/m³. Therefore the addition cost of material is less than \$30 (for what is a \$100,000 boat).

In addition, demonstrating swamped stability (a part of the level flotation criteria) generally means submerging a sample vessel. This would represent a larger cost than the flotation material. For commercial vessels up to 7.5 metres in length, it is normal to use production boats, rather than those individually designed, because it allows for such costs to be amortised over the production run and there is a wide variety of suitable production vessels available on the market.

However, these cost savings of applying the [ABP Standard](#) cannot be applied across the entire incoming fleet, as a large proportion of the fleet would opt to obtain a vessel with level flotation even if the [ABP Standard](#) was applied. This is particularly the case given the strong Australian dollar, as many imported European and US vessels will have level flotation.

b. Level flotation benefits

Globally, level flotation has been accepted as essential to mitigate the impact of collisions, swamping and grounding. In the US and Europe, level flotation is mandatory

for outboard powered recreational vessels that are equivalent in size and operation to many of those that fall within the scope of the proposed standard. In other words, the [ABP Standard](#) permits arrangements that would not be accepted for recreational vessels in the UK or Europe.

As outlined in Section 2 of this RIS, vessels within the scope of the proposed standard are involved in fewer and less serious incidents than the rest of the fleet. However, as also noted in Section 2, these operations are not without risk. As shown in Figure 2 above, vessels less than or equal to 7.5 metres in length were involved in 17 percent of reported collisions between vessels, 11 percent of reported vessel groundings and 15 percent of reported collisions with a fixed object. Basic standards for buoyancy, stability and maximum load and power, which do not currently apply to all vessels within the scope of the proposal, would assist to prevent or mitigate the outcomes of collision and grounding. Level flotation in particular has been accepted as essential to mitigate the impact of collisions, swamping and grounding.

Basic flotation may be appropriate in a recreational boat where members of the public are free to make choices at the time of purchase about the level of risk they are prepared to accept. However, for a commercial vessel, it would be inappropriate to leave that level of risk to the vessel owner. Members of the public hiring the vessel (in the case of Class 4 vessels) or employees working on the boat (in the case of Class 2 and 3 vessels) are not in a position to control those choices and would be relying on the commercial vessel standard to establish the acceptable safety benchmark.

8.1.5. Recreational training vessels

Option 3 involves the application of recreational vessel standards to recreational training vessels. As such, option 3 removes the need to issue exemptions for recreational training boats.

8.2. The impact of applying the ABP Standard and the NSRBSE

Table 10 sets out the costs and benefits of applying the [ABP Standard](#) and [NSRBSE](#) in each jurisdiction to vessels within the scope of the General Safety Requirements for Vessels.

Table 10 – Impact of Option 3 by Jurisdiction

Jurisdiction	Status quo	Cost Impact of Option 3			Safety Impact
		Equipment	Construction	Survey	
Northern Territory	Vessels in the scope of the proposed standard are generally required to comply with recreational safety equipment requirements. However, hire and drive vessels >7m and trading vessels >5m are subject to the NSCV and	For hire and drive vessels >7m and trading vessels >5m – reduced fire extinguisher costs of \$50 per vessel No impact on other vessels	For hire and drive vessels >7m and trading vessels >5m – reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel	For hire and drive vessels >7m and trading vessels >5m – reduced survey costs of \$235.20 - \$4,284 per vessel No impact on other vessels	Negative safety impact for hire and drive vessels >7m and trading vessels >5m associated with removal stability analysis requirements for these vessels Negative safety impact associated with

	survey		(\$5,000-\$15,000) No impact on other vessels		allowance of non-certified PFDs
NSW	< 6m recreational vessel safety equipment requirements and level flotation > 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements	> 6m – reduced fire extinguisher costs of \$50 per vessel No impact on other vessels	<6m – reduced level flotation requirements of \$30 per vessel >6m – reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)	No impact	Negative safety impact for all vessels associated with removal of level flotation or stability analysis requirements Negative safety impact associated with allowance of non-certified PFDs
South Australia	Fishing vessels, houseboats and 2E vessels are subject to specific equipment standards and initial inspection. These requirements reflect commercial standards Other hire and drive vessels are subject to recreational equipment requirements 2D vessels are subject to NSCV and survey	Houseboats, fishing and trading vessels – reduced fire extinguisher costs of \$50 per vessel No impact on other vessels	Houseboats, fishing and trading vessels - reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on other vessels	Houseboats, fishing and trading vessels – reduced survey or initial inspection costs of \$235.20 - \$4,284 per vessel No impact on other vessels	Negative safety impact for houseboats, fishing and trading vessels associated with removal of stability analysis requirements for these vessels Negative safety impact associated with allowance of non-certified PFDs
Queensland	Fishing vessels are subject to safety equipment requirements <6m hire and drive and trading vessels are subject to positive flotation and commercial vessel equipment requirements >6m hire and drive and trading vessels subject to NSCV and compliance	Hire and drive and trading vessels – reduced fire extinguisher costs of \$50 per vessel No impact on other vessels	<6m hire and drive and trading vessels – reduced costs of level flotation of \$30 per vessel >6m hire and drive and trading vessels – reduced costs for scantlings, stability analysis, machinery,	> 6m hire and drive and trading vessels – reduced compliance certification costs No impact on other vessels	Negative safety impact for hire and drive and trading vessels associated with removal of level flotation / stability analysis requirements for these vessels Negative safety impact associated with allowance of non-certified PFDs

	certification		and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on fishing vessels		
Tasmania and Victoria	<p>The vast majority of vessels within the scope of this standard are currently subject to the NSCV</p> <p>All vessels are in survey in Victoria</p> <p>Vessels >6m are in initial survey in Tasmania</p>	All vessels - reduced fire extinguisher costs of \$50 per vessel	All vessels - reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)	<p>Vessels >6m in Tasmania and vessels in Victoria – reduced costs of \$235.20 - \$4,284 per vessel for initial survey</p> <p>Vessels in Victoria – reduced costs of \$237.45 - \$328.86 per vessel for annual survey</p> <p>Hire and drive vessels in WA – reduced costs of \$77.30 - \$120.10 for initial and annual survey</p>	<p>Negative safety impact associated with removal of stability analysis requirements for these vessels</p> <p>Negative safety impact associated with allowance of non-certified PFDs</p>
Western Australia	<p>Trading and fishing vessels in E waters are currently exempt from the NSCV but are required to have fire extinguishers, metallic fuel tanks and piping, and engine compartment venting.</p> <p>Trading and fishing vessels within 5NM of the coast are subject to commercial vessel equipment requirements only</p> <p>Some hire and drive vessels are exempt from survey but require an annual inspection. These vessels are subject to the NSCV</p> <p>All other vessels are subject to survey and the NSCV</p>	<p>Trading and fishing vessels in E waters – additional costs of \$180 dollars associated with additional bailer, life jackets, fire bucket, torch and paddles requirements</p> <p>All other vessels - reduced costs of \$50 per vessel associated reduced equipment requirements</p>	<p>Trading and fishing vessels in E waters or within 5NM of the coast – no impact</p> <p>All other vessels - reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)</p>	<p>Some hire and drive vessels in WA – reduced costs of \$77.30 - \$400 for initial and annual survey</p> <p>In addition, removal of annual exemption fees for some vessels (\$211)</p>	<p>Negative safety impact associated with removal of stability analysis requirements for some vessels</p> <p>Negative safety impact associated with allowance of non-certified PFDs</p>

8.3. Conclusions: Option 3

Applying the APB Standard and the [NSRBSE](#) would see cost savings in all jurisdictions. In summary:

- ▶ Trading and hire and drive vessels 5 – 7.5 metres in Northern Territory, vessels 6 – 7.5 metres in NSW, and trading and hire and drive vessels 6 – 7.5 metres in Queensland, would see reduced costs in the order of \$5,050 - \$18,357 per vessel, depending on the costs of the vessel and survey. Some other vessels within the scope of the standard in these jurisdictions (those less than 6 metres in NSW and those less than 5 metres in Queensland) would see minor cost savings in the range of \$30 - \$80 per vessel.
- ▶ In South Australia, houseboats, fishing vessels and trading vessels in the scope of the proposed standard would see reduced costs in the order of \$5,285 - \$18,350 per vessel.
- ▶ All vessels in Tasmania and Victoria, and some hire and drive vessels in Western Australia in the scope of the proposed standard would see reduced costs of \$5,050 - \$18,357 per vessel, plus in Victoria reduced annual survey costs of \$77.30 - \$400 for some vessels.
- ▶ Trading and fishing vessels in E waters (smooth water operations) within the scope of the proposed standard in Western Australia would see cost savings of around \$180 due to the different equipment requirements, and \$211 annual savings for no longer being required to apply for an exemption.
- ▶ Trading and fishing vessels within 5NM of the coast within the scope of the proposed standard in Western Australia would see cost savings of around \$50 due to the different equipment requirements, and \$211 annual savings for no longer being required to apply for an exemption.
- ▶ For small type-approved hire and drive vessels in Western Australia, there would be annual savings of around \$120 due to the removal of the survey requirements. The initial type-approval costs for these vessels (in the order of \$1,120) would also be removed under Option 3.

These cost reductions will affect new vessels only. Even where the equipment reductions (\$50 reduction in fire fighting equipment) affect the existing fleet, the benefits would only be realised when the operator replaces the existing equipment.

However, applying the [ABP Standard](#) to commercial vessels less than 7.5 metres in length operating in sheltered waters³⁰ in low-risk operations will result in permitting the use of some boats that do not fully meet recreational boating technical standards applying in other countries. It would permit, for example, open boats with outboards that do not have level flotation.

This outcome may be appropriate in a recreational boat where members of the public are free to make choices at the time of purchase about the level of risk they are prepared to accept. However, for a commercial vessel, it would be inappropriate to leave that level of risk to the vessel owner.

³⁰ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

Option 3 also does not implement the nationally-agreed approach to vessels within the scope of the proposed standard set out in the *National Approach to Maritime Safety Reform: Consultation RIS* and in [Section 4 of NSAMS](#). Both these documents identify the need for these vessels to comply with level flotation standards.

For these reasons, application of the [ABP Standard](#) and the [NSRBSE](#) is not the preferred option.

9. IMPACTS OF OPTION 4: THE PROPOSED STANDARD

9.1. What is the proposed standard?

The proposed standard draws on both the existing State and Territory requirements and the recreational vessel standards.

Unlike Option 3, the proposed standard meets international standards for recreational vessel design and construction, reflects recent developments and applies current equipment standards.

Like the [NSCV](#) (Option 2), vessels that are fully compliant with recreational boat technical standards (such as ISO standards) can be used in some lower-risk commercial applications. However, unlike the NSCV, the proposed standard is drafted so that it can be applied by a boat builder or operator without the need for input from a government appointed marine surveyor.

As such, the proposed standard implements the risk-based nationally-endorsed policy set out [NSAMS Section 4](#), whereby commercial vessels less than 7.5 metres in length, operating on sheltered waters³¹ and in low-risk operations, are not required to undergo survey.

9.2. Costs and benefits of the proposed standard

As with the other options, Option 4 must be assessed against the base case, or the status quo. This involves considering the impact of Option 4 against all the existing scenarios, namely:

- ▶ the impact in jurisdictions that apply commercial vessel construction and equipment standards to vessels within the scope of the proposed standard (Victoria, Tasmania and for some vessels in Western Australia);
- ▶ the impact in jurisdictions that apply commercial equipment standards and recreational vessel requirements to some of these vessels (certain vessels in Queensland, Western Australia and the Northern Territory); and
- ▶ the impact in jurisdictions that apply recreational vessel requirements only to some of these vessels (certain vessels in NSW, the Northern Territory, Queensland, South Australia and Western Australia).

The impact of Option 4 against these three scenarios is considered in the following subsections.

A jurisdiction-by-jurisdiction review of the impact of Option 4 is contained in Section 9.3 below.

9.2.1. The impact in jurisdictions that apply commercial vessel construction and equipment standards

Option 4 entails the application of a standard that imposes requirements equivalent to recreational standards.

³¹ Operational areas are defined in the National Standard for Commercial Vessels Part B. The waters are designated A, B, C, D, E waters by State and Territory marine safety authorities in line with Part B. Together, D and E waters are 'sheltered waters'

For jurisdictions that currently only apply commercial vessel standards (i.e. the [NSCV](#)), there will be savings in applying the proposed standards associated with:

- ▶ No survey costs (a reduction of around \$235.20 - \$4,284 per vessel – see Section 7 above);
- ▶ Lesser scantlings, stability analysis, machinery requirements and administrative costs (a reduction of around \$5,000 - 15,000 per vessel – see Section 7 above); and
- ▶ Recreational vessel equipment requirements (a reduction of around \$50 per vessel for different safety equipment requirements – see Section 8 above). A detailed breakdown of the differences between the minimum equipment requirements of the proposed standard as compared to the [NSCV](#) is contained in Annex A.

9.2.2. The impact in jurisdictions that apply commercial vessel equipment standards and recreational vessel requirements

In jurisdictions that currently do not apply construction standards to vessels within the scope of the proposed standard, the most onerous element of the proposed standard relates to buoyancy requirements.

As outlined in Sections 7 and 8 above, it is assumed that all recreational vessels would have basic flotation as a minimum. Thus the costs of the proposed standard are the costs entailed in achieving level rather than basic flotation, which amounts to around \$30 per vessel (plus some additional prototype testing costs) for the proportion of the fleet that would not otherwise have level flotation.

The benefits of level flotation have been discussed at length in this RIS. Globally, level flotation has been accepted as essential to mitigate the impact of collisions, swamping and grounding. Basic flotation may be appropriate in a recreational boat where members of the public are free to make choices at the time of purchase about the level of risk they are prepared to accept. However, for a commercial vessel, it would be inappropriate to leave that level of risk to the vessel owner.

9.2.3. Jurisdictions that currently apply recreational vessel requirements

In jurisdictions that currently only apply recreational vessel requirements there will be costs (and benefits) in applying the proposed standard associated with level flotation construction requirements.

9.2.4. Recreational training vessels

Option 4 involves the application of recreational vessel standards to recreational training vessels operating in inshore waters. As such, Option 4 removes the need to issue exemptions for recreational training boats.

9.3. The impact of the proposed standard

Table 11 sets out the costs and benefits of applying the proposed standard (National Standard for General Safety Requirements for Vessels) in each jurisdiction.

Table 11 – Impact of Option 4 by Jurisdiction

Jurisdiction	Status quo	Cost Impact of Option 4			Safety Impact
		Equipment	Construction	Survey	
Northern Territory	<p>Vessels in the scope of the proposed standard are generally required to comply with recreational safety equipment requirements.</p> <p>However, hire and drive vessels >7m and trading vessels >5m are subject to the NSCV and survey</p>	<p>For hire and drive vessels >7m and trading vessels >5m – reduced fire extinguisher costs of \$50 per vessel</p> <p>No impact on other vessels</p>	<p>For fishing vessels, hire and drive vessels <7m and trading vessels <5m – increased level flotation requirements of \$30 per vessel</p> <p>For hire and drive vessels >7m and trading vessels >5m – reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)</p>	<p>For hire and drive vessels >7m and trading vessels >5m – reduced survey costs of \$235.20 - \$4,284 per vessel</p> <p>No impact on other vessels</p>	Positive safety impact associated with increased application of level flotation requirements
NSW	<p>< 6m recreational vessel safety equipment requirements and level flotation</p> <p>> 6m buoyancy in accordance with NSCV C6B and commercial vessel equipment requirements</p>	<p>> 6m – reduced fire extinguisher costs of \$50 per vessel</p> <p>No impact on other vessels</p>	<p>> 6m reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)</p>	No impact	No impact
South Australia	<p>Fishing vessels, houseboats and 2E vessels are subject to specific equipment standards and initial inspection. These requirements reflect commercial standards</p> <p>Other hire and drive vessels are subject to</p>	<p>Houseboats, fishing and trading vessels – reduced fire extinguisher costs of \$50 per vessel</p> <p>No impact on other vessels</p>	<p>Hire and drive vessels – increased level flotation costs of \$30 per vessel</p> <p>Other vessels - reduced costs for scantlings, stability</p>	<p>Houseboats, fishing and trading vessels – reduced survey or initial inspection costs of \$235.20 - \$4,284 per vessel</p> <p>No impact on other vessels</p>	Positive safety impact associated with application of level flotation requirements to hire and drive vessels

	recreational equipment requirements 2D vessels are subject to NSCV and survey		analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)		
Queensland	Fishing vessels are subject to safety equipment requirements <6m hire and drive and trading vessels are subject to positive flotation and commercial vessel equipment requirements >6m hire and drive and trading vessels subject to NSCV and compliance certification	Hire and drive and trading vessels – reduced fire extinguisher costs of \$50 per vessel No impact on other vessels	Fishing vessels – increased level flotation costs of \$30 per vessel >6m hire and drive and trading vessels - reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000) No impact on other vessels	> 6m hire and drive and trading vessels – reduced survey or initial inspection costs of \$235.20 - \$4,284 per vessel No impact on other vessels	Positive safety impact associated with application of level flotation requirements to fishing vessels
Tasmania and Victoria	The vast majority of vessels within the scope of this standard are currently subject to the NSCV. All vessels are in survey in Victoria Vessels >6m are in initial survey in Tasmania	All vessels - reduced fire extinguisher costs of \$50 per vessel	All vessels - reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)	Vessels >6m in Tasmania and vessels in Victoria – reduced costs of \$235.20 - \$4,284 per vessel for initial survey Vessels in Victoria – reduced costs of \$237.45 - \$328.86 per vessel for annual survey	No impact
Western Australia	Trading and fishing vessels in E waters are currently exempt from the NSCV but are required to have fire extinguishers, metallic fuel tanks and piping, and engine compartment venting. Trading and fishing vessels within 5NM of	Trading and fishing vessels in E waters – additional costs of \$180 dollars associated with additional bailer, life jackets, fire bucket, torch	Trading and fishing vessels in E waters and within 5NM of the coast – increased level flotation costs of \$30 per vessel All other vessels -	Some hire and drive vessels in WA – reduced costs of \$77.30 - \$400 for initial and annual survey In addition, removal of annual exemption fees for some vessels (\$211)	No impact

	<p>the coast are subject to commercial vessel equipment requirements</p> <p>Some hire and drive vessels are exempt from survey but require an annual inspection. These vessels are subject to the NSCV</p> <p>All other vessels are subject to survey and the NSCV</p>	<p>and paddles requirements</p> <p>All other vessels - reduced costs of \$50 per vessel associated reduced equipment requirements</p>	<p>reduced costs for scantlings, stability analysis, machinery, and administration of 25 – 30% per vessel (\$5,000-\$15,000)</p>		
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9.4. Conclusions: Option 4

Applying the proposed standard would see cost savings in all jurisdictions. In summary:

- ▶ Trading and hire and drive vessels 5 – 7.5 metres in Northern Territory, vessels 6 – 7.5 metres in NSW, and trading and hire and drive vessels 6 – 7.5 metres in Queensland, would see reduced costs in the order of \$5,050 - \$18,357 per vessel, depending on the costs of the vessel and whether or not initial survey requirements currently apply. Some other vessels within the scope of the standard in these jurisdictions (including hire a drive vessels less than 6 metres in Queensland) would see minor cost savings in the range of \$50 per vessel.
- ▶ In South Australia, houseboats, fishing vessels and trading vessels in the scope of the proposed standard would see reduced costs in the order of \$5,285 - \$18,350 per vessel, depending on the costs of the vessel and its survey.
- ▶ All vessels in Tasmania and Victoria, and some hire and drive vessels in Western Australia in the scope of the proposed standard will face reduced costs of \$5,050 - \$18,357 per vessel, plus in Victoria reduced annual survey costs of \$77.30 - \$400 for some vessels.
- ▶ Trading and fishing vessels in E waters (smooth water operations) within the scope of the proposed standard in Western Australia would see cost increases of around \$180 due to the different equipment requirements, but \$211 annual savings for no longer being required to apply for an exemption. However, these vessels may also face additional costs associated with the level flotation requirements, of around \$30 per vessel. In others words, the cost impact for these vessels is likely to be close to neutral.
- ▶ Trading and fishing vessels within 5NM of the coast in Western Australia would see cost savings of around \$50 due to the different equipment requirements. However, these vessels may also face additional costs associated with the level flotation requirements, of around \$30 per vessel.
- ▶ For small type-approved hire and drive vessels in Western Australia, there would be additional construction costs of around \$30 associated with level flotation, but annual savings of around \$120 due to the removal of the survey requirements. The initial type-approval costs (in the order of \$1,120) would also removed under Option 4.

- ▶ There may be minor increased costs for some vessels in the Northern Territory, South Australia and Queensland associated with a new requirement for level flotation, in the order of \$30 per vessel. However, many vessels would have level flotation under the current regime (i.e. even if it was not required), in which case there would be no increase in costs.

These cost reductions (and where relevant, cost increases) will affect new vessels only. Even where the equipment reductions (\$50 reduction in fire fighting equipment) affect the existing fleet, the benefits would only be realised when the operator replaces the existing equipment.

The proposed standard will reduce costs for operators and government in all jurisdictions. While this option entails slightly higher costs than Option 3 due to its requirements for level flotation, it removes the safety gap created by the lack of specification of level flotation requirements in the [ABP Standard](#). In addition, the costs of level flotation will affect only the small proportion of vessels entering the fleet that would not otherwise meet the level flotation requirements – as many of these vessels would be built to Australian or international recreational vessels standards that require level flotation.

The proposed standard will also see cost savings compared to option 3 associated with the specification of current technical standards (as the standards specified in the [NSRBSE](#) are out of date), thereby reducing confusion and compliance costs for operators.

Moreover, the proposed standard removes two safety gaps that currently exist in some jurisdictions, and that would be perpetuated under Option 3 with the allowance of basic flotation and the acceptance of PFDs that have not been certified.

The proposed standard is also the only option that implements the nationally-agreed approach to low-risk vessels at the smaller end of the fleet, as set out in the *National Approach to Maritime Safety Reform: Consultation RIS* and in [Section 4 of NSAMS](#).

For these reasons, the proposed standard is the preferred option.

10. COMPETITION ASSESSMENT

10.1. COAG Principles

The COAG National Competition Principles Agreement states that regulations with significant net costs or benefits to the community should be assessed to determine that a proposal is the most effective form of government intervention to achieve a desired objective.

The impact of the standard on competition should be considered as part of an evaluation of the effectiveness of the proposal relative to the alternatives. The policy also requires that the benefits of any proposed legislation should outweigh implementation costs and that any restrictions on competition imposed by the legislation should be no more limiting than is necessary to achieve the objective.

Uniform national adoption of the National Standard for General Safety Requirements for Vessels will ensure that the requirements are applied consistently and fairly to all stakeholders. This will ensure competitive neutrality between businesses, regardless of where they operate.

As shown in Section 9, the proposed standard will have little effect, or a positive effect in some cases, on the overall cost structure of individual organisations involved with implementing the requirements for commercial vessels less than 7.5 metres engaged in low-risk operations. Taken over the fleet as a whole, the overall impact should be a reduction in costs in all jurisdictions.

As such, although businesses will continue to incur the routine costs associated with design and construction, these ongoing costs are unlikely to be higher than at present or to restrict market competition, market entry or product and service innovation. It is highly unlikely that the requirements will be unsustainable for existing small businesses or act as a barrier for businesses planning to expand or to enter the maritime industry.

10.2. Small Business

The regulatory assessment guidelines for national standards require that the likely impacts on small business be identified, especially where regulatory compliance costs could have a disproportionate impact on small business.

It is very difficult to determine accurately the exact portion of the new commercial vessels fleet that are likely to be operated by small businesses as there is no reliable information available. However, as the proposed standard affects the smaller end of the fleet, a large proportion of these vessels are likely to be operated by small businesses though there are also some large businesses that operate fleets of small vessels (e.g. in the pearl farm and aquaculture industries).

These small businesses are not expected to be unfairly disadvantaged by the proposed standard because it will reduce costs across the fleet, and for the small number of vessels where costs would increase, the increase is minor.

In terms of designing new vessels, the great majority of vessel design businesses would most likely have less than twenty employees and should be considered as small businesses. In terms of manufacturing new vessels, both small and large businesses will participate. A 2009 Queensland survey of the marine sector in the Gold Coast region reported 4,541 employees employed in 769 maritime related businesses, an average of

just below 6 employees per business. These were predominantly in the vessel construction, repair and sales sectors.³²

These small businesses are unlikely to be adversely impacted by the standard as the costs of designing and building small commercial vessels should decrease across the fleet.

In addition, the 7.5 metre 'cut-off' for the application of the standard is unlikely to impact significantly on boat builders. As detailed in Chapter 2, most jurisdictions currently apply a less onerous standard to smaller vessels, where current cut-offs are in the six to eight metre range. As such, the new standard will not depart significantly from the status quo for the majority of the country.

In addition, vessels are usually purchased for a particular purpose and area of use. Passenger and/or cargo space is a premium asset of each vessel. The length of a vessel could be reduced marginally – probably not more than a metre – to fall within the vessel target group, but the benefit of avoiding survey is marginal because of the potential loss of efficiencies. A potential purchaser of a vessel greater than say 10 metres is highly unlikely to purchase two five metre vessels or a 7.5 metre vessel. Alternatively, if a purchaser of an eight metre vessel chooses a 7.5m vessel the same boat builders are likely to be engaged.

As such, there would be little if any impact on boat builders at either side of the 7.5 metre length.

³² Queensland's Recreational Marine Industry, Marine Queensland, January 2009

11. CONSULTATION

11.1. Public consultation

In June 2011, an NMSC “Have Your Say” notice was issued to the public and relevant stakeholders on the NMSC national database, including marine authorities, seeking comment on the draft National Standard for General Safety Requirements for Vessels.

From June 2011 to the end of September 2011, the proposed standard and the draft RIS were available for public consultation. As part of this consultation, the documents were published on the websites of the NMSC and the Office of Best Practice Regulation. The public and other stakeholders were notified about the proposed standard by various means of communication, including in marine publications and other media..

11.1.1. Consultation on the national system

Stakeholders were also advised of the intent and content of the proposed standard at consultations on the proposed national maritime regulatory reform (the national system for commercial vessel regulation). These consultations included:

- Sydney 28 June 11
- Fremantle 5 July 2011
- Darwin 7 July 2011
- Canberra 14 July 2011
- Sydney 20 July 2011
- Hobart 25 July 2011
- Adelaide 28 July 2011
- Port Lincoln 29 July 2011
- Cairns 23 August 2011
- Townsville 25 August 2011
- Airlie Beach 26 August 2011
- Mackay 29 August 2011
- Hervey Bay 1 September 2011
- Maroochydore 2 September 2011
- Sydney 6 September 2011
- Gold Coast 12 September 2011
- Brisbane 13 September 2011
- Lakes Entrance 19 September 2011
- Altona 21 September 2011
- Geelong 23 September 2011

11.2. Public comment on the proposal

49 comments were received on the draft standard. No comments were received on the draft RIS.

The key areas of concern from stakeholders were:

- ▶ ***The scope of the standard – to which vessels it would apply.*** The comments sought more details on the scope of vessels to which the standard would apply. The RIS and draft standard were developed based on the current agreed scope of the standard – as set out in Section 1.4 of this RIS. If this scope was to change as part of the development of the national system, both the RIS and the standard would be amended and updated.
- ▶ ***The treatment of personal watercraft (PWCs).*** The comments argued that the proposed exemptions for PWCs were unwarranted as the safety risks were no less than those facing other vessels. In response to these comments, the special treatment of offshore PWCs was removed.
- ▶ ***The requirement for vessels more than 2NM from the coast to carry life raft.*** The comments noted that the proposed requirements were more onerous than the NSCV requirements. This was unintended, and the standard was revised to ensure that the life raft requirements aligned with the NSCV. As a result, a vessel operating in inshore waters is only required to carry life raft if it does not have level flotation.

All 49 comments are listed in Annex B, together with the response and/or amendments to the standard resulting from the submission. As outlined in Annex B, the comments were on the detail of the requirements, rather than the proposition as a whole. Stakeholders appeared to support the proposal in aggregate.

The key changes to the standard as a result of the comments were:

- ▶ Removal of the special treatment accorded to PWCs in terms of the equipment required;
- ▶ Removal of the requirement for vessels to carry a liferaft, provided the vessel is within 15nm of the coast and has level flotation; and
- ▶ Addition of the option for vessels with engines to comply with relevant ISO standards for fuel systems.

This RIS was updated to reflect these changes to the draft standard and to consider the revised impacts associated with the changes.

12. CONCLUSIONS

Table 12 contains an overview of the impact of each of the four options presented in this RIS.

Option 1, the status quo, would undermine the national approach to commercial vessel regulation agreed by COAG and poses costs to industry associated with inconsistency and current over-regulation in some jurisdictions.

Option 2, the [NSCV](#), requires the vessels to be in survey and entails increased costs for operators associated with survey and different construction and equipment requirements for some vessels within the scope of the standard.

Option 3, applying the [ABP Standard](#) and the [NSRBSE](#), will reduce costs for operators and government. However, the lack of level flotation requirements for some vessels will pose an unacceptable risk to safety.

Option 4, the proposed standard, will reduce costs in all jurisdictions and will result in only minor increases in costs for a small proportion of the fleet. While this option entails higher costs than Option 3, it removes the safety gap created by the lack of specification of level flotation requirements in the [ABP Standard](#). Overall, it will significantly reduce costs for operators and governments compared to the status quo.

Table 12 – Overview of the Impact of the Options

	Description	Impact
Option 1: Status Quo	A mix of commercial vessel standards (the NSCV) and recreational equipment standards [see Table 1]	Base case in terms of cost Inconsistency in requirements around the country creates barriers to movement and imposes costs on industry Potential over-regulation of the small, low-risk end of the commercial vessel fleet in some jurisdictions due to the application of commercial vessel standards (including the NSCV) imposes costs on government and industry Will undermine the national approach to commercial vessel regulation agreed by Ministers
Option 2: NSCV	A performance-based standard intended to be applied within a survey regime	Increase in costs as compared to the base case Cost increase not justified by the risk of the operations
Option 3: Recreational Boating Standards	Application of the ABP Standard and the Recreational Boating Equipment Standard	Reduction in cost as compared to the base case Unacceptable increase in risks
Option 4: Proposed Standard	Reflects recreational boating standards with additional requirements where warranted by the risk (such as level flotation for more vessel types)	Reduction in costs as compared to the base case No safety gaps

Option 4 was also supported by stakeholders. While some comments questioned the details of specific requirements of the proposed standard, they were not opposed to the proposition as a whole.

In light of the analysis contained in this RIS, the proposed standard is expected to:

- ▶ Further the NMSC's objectives specified in the National Marine Safety Strategy;
- ▶ Support the establishment of a single national law for marine safety;
- ▶ Have a positive cost impact; and
- ▶ Have benefits that are likely to be greater than the alternatives.

The issues discussed in this RIS and the results of the impact analysis suggest that Option 4 is the preferred option.

13. IMPLEMENTATION AND REVIEW

13.1. Approval

The amended draft standard was approved by the NMSC on 14 December 2011, together with the recommendations of the Reference Group regarding the public comments. The proposed standard will be submitted to the Standing Committee on Transport and Infrastructure for approval in accordance with the National Framework for Marine Safety.

13.2. Legislation

This RIS covers the regulatory proposal and the legal instrument which gives effect to it.

The National Standard for General Safety Requirements for Vessels is likely to be made mandatory through the proposed national law for marine safety. At this stage, the national law is expected to take effect in 2013. Alternatively or in addition, jurisdictions may also implement the standard through regulation or amendment to the present marine safety legislation in force, prior to the implementation of the national law.

13.3. Review

The NMSC has committed to review the NMSC standards at five-yearly intervals.

Owing to the anticipated changes in the administration of domestic commercial vessel safety, there is uncertainty as to what the exact arrangements will be available in the new environment. However, based on current arrangements, the success of the proposed standard would be monitored by:

1. Feedback provided by users and surveyors applying the standard through correspondence, the Commercial Vessel Survey Forum and the Australian Commercial Marine Compliance Professionals Forum.
2. Holding Peer Advisory Network meetings to review applications for Generic Equivalent Solutions.
3. Monitoring and acting on proposals for modifications to the standard received via the jurisdictions to the NMSC secretariat.
4. Ongoing collection and analysis of incident and accident data over time.

ANNEX A – Equipment requirements of the NSCV compared to the proposed standard

Tables 13 and 14 provide a breakdown of the equipment requirements of the [NSCV](#) as compared to the proposed standard. The items in **bold underline** are those where there are differences between the two standards.

Table 13 — Required Equipment for Vessels in Various Operational Areas

Item	Quantity (General Safety Standard)	Quantity (NSCV)	Area of operation		
			Smooth and partially smooth waters	Inshore up to 2NM from the coast (I)	Other inshore
Anchor with chain and/or line	1	1	✓	✓	✓
Bilge pump	(B2)	1	✓	✓	✓
Bucket or bailer	1	1	✓	✓	✓
Compass (C)	1	1	—/✓	✓	✓
Distress Signal—orange smoke hand-held	2	2	—	✓	✓
Distress Signal—red hand-held distress flare	2	1	—	✓	✓
Distress Signal—red star parachute distress rocket	2	3	—	—	✓
Drinking water	2L per person	—	—	✓	✓
EPIRB	1	1	—	—	✓
Fire bucket	1	1	✓	✓	✓
<u>Fire extinguisher (F2)</u>	<u>AS 1799.1 Section 6</u>	<u>NSCV C4 Table 26</u>	<u>(F1)</u>	(F1)	<u>(F1)</u>
Fire blanket	1	1	(F3)	(F3)	(F3)
<u>First aid kit</u>	<u>1 (No specification)</u>	<u>1 (Scale G)</u>	✓	✓	✓
Life raft or dinghy	1	1	—		2nm/✓
Map or chart of area	1	✓	—	—	✓
<u>Marine radio</u>	<u>1</u>	<u>1</u>	<u>—/✓</u>	✓	<u>2nm/✓</u>
Navigation lights (N1)		✓	✓	—	✓
Secondary means of propulsion.	1 set	—	(P2)	(P2)	(P2)
				(P2)	
Waterproof/buoyant torch	1 per vessel	1 per crew member	✓	✓	✓

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 shall 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.
- (C) A compass shall be carried on smooth and partially smooth waters according to the NSCV, but not according to the General Safety Standard.
- (D) Flares shall be carried on remote enclosed waters where assistance is not readily available.
- (F1) Fire extinguishers shall be provided on all boats where fuel or a battery is carried, or where there is a gas installation or fuel stove.
- (F2) The minimum size extinguisher to be carried according to AS 1799.1 is 5B; however, according to NSCV F4 it is 10B.
- (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.
- (P1) The secondary means of propulsion may be a pair of oars or a paddle for vessels less than 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.

Table 14 — Personal Flotation Devices

Item	Quantity (General Safety Standard)	Quantity (NSCV)	Area of operation	
			Smooth and partially smooth waters	Inshore waters
Coastal lifejacket (Level 150)		(P)	✓	✓
Level 150 PFD or Level 100 PFD	(P)		—	—
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 shall be carried for each person onboard the boat.
- (J) For personal watercraft, only a Level 50 or Level 50S PFD shall be used.

ANNEX B – Comments on draft standard and resulting amendments

Relevant section	Comment	Response
1.1 Scope	<p>1 Assessment of the standard has been complicated by not being fully cognisant of the range of vessels to which the draft standard is expected to apply.</p> <p>It is recognised that work to define the range of vessels and operations within the scope of the new National Law legislation is ongoing, however the accompanying Regulatory Impact Statement may be considered to be misleading as this refers to the standard being applied only to vessels under 7.5m or those used in sail training up to 24m. It is understood that the standard will in fact be applied to other vessels over 7.5m which are currently considered to be recreational in use but may come under the National Law as commercial vessels based on their ownership model being that of a type considered to be commercial, including share boats, syndicated boats and similar. Clarification of this application limit would greatly assist understanding of the detail of the proposed standard and its potential impact.</p>	<p>The RIS considered only the expected application of the standard. At this stage no broader application is expected.</p> <p>This is an issue for the consultation on the proposed National System.</p>
1.1 Scope	<p>2 Do not apply the General Safety Standard at all. The applicable vessels are commercial, and hence the NSCV should apply.</p> <p>The disadvantage of this approach is that the General Safety Standard provides specific equipment requirements for a range of small craft and common evidence requirements.</p>	<p>This is an issue for the consultation on the proposed National System.</p>
1.2 Application	<p>3 Note 2: Change “NMSC Part E” to read “NSCV Part E”</p>	<p>Standard amended.</p>
1.2 Application	<p>4 This standard applies to the operator or to the vessel? e.g. is an operator required to be equipped with a bailer?</p>	<p>No amendment.</p> <p>The application clause sets out when the standard applies.</p>
1.4 Definitions	<p>5 Change ‘boat’ to ‘vessel’ to align with the rest of the standard.</p>	<p>Standard amended.</p>
1.4 Definitions	<p>6 The definition of PFD starts by using the term “buoyancy aid”. As a buoyancy aid is one specific type of PFD, it would be better to use the term “buoyancy device” or take the fuller definition from the ISO or AS standards.</p>	<p>Definition changed to reflect AS 4758.1.</p>
2.2 Equipment and Construction	<p>7 The standard is proposing to apply positive flotation requirements (with some additions) to vessels under 7.5 metres in length operating in sheltered waters (smooth and partially smooth).</p> <p>Currently Queensland accept positive flotation statements along with a statement of suitability for vessels only up to 6.0 metres in length. The standard will not include vessels operating restricted offshore. Currently Queensland accepts positive flotation and</p>	<p>Noted.</p> <p>The national system will not be identical to the current Queensland system. However,</p>

Relevant section	Comment		Response
		statements of suitability for certain vessels (2C, etc) operating restricted offshore.	the limitation of the application of this type of standard to, at most, restricted offshore, is agreed. Standard amended.
Table 1	8	What is the means of ensuring that human powered craft are fitted with floatation?	No amendment to the standard. The certificate of operation would be an appropriate vehicle for implementing compliance. This will be set out in the applicable law.
Table 1	9	Table 1 of the standard should be revised to require an EPIRB to be carried on a PWC operating 2 nm from the coast/land to be consistent with existing QLD requirements.	Standard amended PWC's are no longer accorded special treatment under the standard.
Table 1	10	MSQ would also suggest PWC operating beyond partially smooth waters should carry similar safety gear to other boats such as anchor, compass, charts (or GPS) flares, drinking water, navigation lights & torch. If the PWC can not carry this equipment it should not go beyond partially smooth waters	Standard amended PWC's are no longer accorded special treatment under the standard.
Table 1	11	The draft states: 'A bailer shall be carried.' The Australian Canoeing Safety Guidelines are more specific for sea kayaks (p 21): 'Pump or self-bailer'. In practice, sea kayaks have electric or foot-operated pumps, with sponge as backup, and other canoes and kayaks carry sponges. Sit-on-top kayaks are self-draining and do not require bailers or pumps.	Standard amended. Noted that human powered craft in C waters are not within the scope of this standard (unless being used for recreational training purposes).
Table 1	12	Level 100 PFDs are unsuitable for canoeing and kayaking because of their restriction of movement. Their wearing detracts from performance, and therefore, safety. Level 50 and 50S PFDs provide adequate levels of protection. The 'A Level 100 PFD shall be provided...' requirement should be deleted.	Standard not amended Inflatable PFDs can be used to overcome movement restrictions.
Table 1	13	A Level 100 PFD should not be required for each person when	Standard not

Relevant section	Comment	Response
	<p>operating on and beyond smooth and partially smooth waters.</p> <p>Level 100 PFDs are highly uncomfortable in canoes, kayaks and dragon boats due to the seating positions. In a kayak, the length of the design forces the collar up around the head. Paddling requires high arm positions during the stroke so the subsequent shoulder movement is up and down. The collar causes the paddling action to be grossly impeded and severe abrasions to the neck area result, especially in salt water.</p> <p>Further, this particular design severely impedes one of the major safety skills that make sea kayaks seaworthy and flexible: rolling from inverted to upright. The collar, designed to keep the head out of the water, stops the paddler from attaining the correct rolling position and also restricts the rolling action if the position can be attained.</p> <p>No other country requires Level 100 PFD for such craft and an attempt to enforce them would be ignored by the serious sea paddling community.</p> <p>Most certainly we insist on Level 50 PFD as the standard for all paddlers in the deep ocean on all craft.</p> <p>We also have a minor concern over bailers. Many kayaks use large sponges as the standard alongside bilge pumps if they are operating in deep water conditions. We would appreciate these as being included in the definition of bailer.</p> <p>Kayaks and such craft should have sealed compartments, with bulkheads, as part of their flotation.</p>	<p>amended</p> <p>Inflatable PFDs can be used to overcome movement restrictions.</p> <p>Noted that human powered craft in C waters are not be within the scope of this standard (unless being used for recreational training purposes).</p>
Table 1	14 The table suggests that a sailing vessel less than 7.5m is not required to carry any safety equipment beyond relevant PFDs and a bucket/bailer. Is this the case should such a vessel operate beyond 2nm from the coast? Assuming not, perhaps a clarifying comment should be added to the text of cls 2.2.	Standard amended to include the clarification.
Table 1	15 The safety equipment requirements for a tender when operating between its mother vessel and another vessel but where both are more than 2nm from the coast, should be clarified: it is not considered appropriate that equipment such as a liferaft, distress signals or marine radio should be required for such activities – consideration of an operating distance from mother vessel should be given.	<p>The treatment of tenders that are part of an offshore mother ship equipment is addressed under the proposal for a National System.</p> <p>They are not within the scope of this standard.</p>
Table 1	16 The requirement for design requirements to be in accordance with requirements for tenders in the standard applicable to the mother vessel would appear to be a problem when application of this standard is applied to mother vessels where there is no such requirement... Certainly in way of vessels designed as recreational boats but the operated in a manner considered by legislation to be commercial, such vessels will likely be designed/assessed to standards such as ISO, ABYC or AS 1799: these do not make	<p>Standard amended.</p> <p>Reference to tender design deleted. All independent vessels to be treated on the</p>

Relevant section	Comment	Response
	requirements for tenders to mother vessels. Should not the design requirements be NIL, to match unpowered sailing vessels and human powered craft?	same basis.
Table 1	17 “Participants in water”: This would appear to be more an operational safety issue as in all other cases the requirements for safety equipment relate to carriage of such on board the vessel. This requirement seems ill-placed here and is at odds with cls 1.1 Scope.	Standard amended; requirement removed
Table 1	18 Chapter 1: In WA, vessels can be exempt survey under 8 metres which means there is a gap between 7.5 and 8 metres for these standards. Exempt survey vessels can operate out to 5 NM from mainland coast and are exempt liferafts due to internal flotation. Chapter 2: This is not level flotation and existing vessels need to be grandfathered. Level flotation standard should only apply to new vessels in the future. If this standard will apply to existing vessels it will mean they will need to carry liferafts and this is not plausible for existing fleets and cost imposition	The construction aspects of the standard will only apply only to new vessels under the National System. Also, the standard has been amended to align with NSCV. Liferaft not required if within 15nm and vessel has level flotation.
Table 1	19 Additional Type of vessel: Surf ski/ paddle board (Suggest that the two additional classes would fit here, Surf skis and paddle boards wouldn't be able to carry or have need for a bailer, but probably should be wearing a level 50 PFD at all times).	Standard not amended. Surf ski / paddleboards not within scope of standard.
Table 2	20 Requirement for liferaft or dinghy >2nm offshore seems very onerous e.g. for a 5m runabout. Not required for recreational vessels. Suggest delete, or replace with “or lifebuoy/lifesling”.	Standard amended to align with NSCV. Liferaft not required if within 15nm and vessel has level flotation.
Table 2	21 Surprised marine radio not required if < 2nm offshore. How do they communicate? Suggest add “marine radio or mobile phone”.	Standard not amended
Table 2	22 The key to table 2 should indicate 2nm means 2nm seaward from land. This would be consistent with QLD requirements allowing operations around many QLD islands without the need to carry EPIRB etc.	Standard amended to clarify requirement.
Table 2	23 The table and key (F3) suggest that a first aid kit is required only where there is a fitted galley. This would seem inappropriate for all vessels, particularly those greater than 7.5m: or is this a typo?	Standard amended. A first aid kit required on all commercial vessels.
Table 2	24 With the requirement for paddles/oars limited to areas smooth and partially smooth, there is an inference that in other areas a vessel	Standard amended.

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		would be required to have a second means of propulsion. This is not covered elsewhere in the standard and would potentially impose a significant burden on some vessels. This requirement should be clarified and as necessary highlighted in the standard. Key (P) states “oars and paddles shall be carried...” this should be “oars or paddles” .	Either a means of communication or a second means of propulsion (which could be a paddle) is required in all waters.
Table 2	25	Chapter 2: Life raft or dinghy required if operating more than 2NM from coast. See comment above re survey exempt vessels in WA to 8 metres operating to 5 NM from mainland coast. Current exemptions must continue to apply.	Standard amended to align with NSCV. Liferaft not required if within 15nm and vessel has level flotation.
Table 2	26	The standard has contradicted itself. The Table 2 indicates required equipment for vessels operating offshore when it is first stated in the Foreword that the Standard would not be applicable for vessels operating within sheltered waters. Furthermore Table 3 Part C Section 7A states that a vessel operating offshore (2C) less than 15 metres in length does not require a liferaft if it is fitted with level flotation in accordance with NSCV Part C Section 6B - it is not understood then why Table 2 of this standard is should be more onerous than that of Part C Section 6B in requiring a liferaft for vessels fitted with positive flotation. It is recommended that this standard should also apply to vessels operating class 2C <7.5 meters restricted offshore and also the vessels be exempt from carrying a liferaft where they meet level flotation requirements.	Standard amended. Liferaft not required if within 15nm and vessel has level flotation.
Table 2	27	2nm aligns with the National Standard for Recreational Boat Safety, it is a practical starting point for higher level items of safety equipment.	Noted.
Table 2	28	2nm has been used in the NS for recreational Boating Safety equipment, whatever is chosen we should be consistent.	Noted.
Table 2	29	It is not clear whether the 2nm limit applies also within the partially smooth waters limit areas, some of which extend beyond 2nm from the coast. Application of such a prescriptive limit is difficult given the variety of operational areas encountered around the coast of Australia – perhaps acceptable in some areas, not in others due to geographic, climatic and „remoteness” considerations. In reading the accompanying RIS, it is not clear that this standard will be applied to vessels operating beyond D and E waters, in which case the use “other operational areas” . This should be clarified in the standard, and while not an issue for this standard, should also be clarified in regulatory and explanatory documentation accompanying the new legislation. Similarly, the RIS would appear to limit application of this standard to vessels under 7.5m or vessels under 24m where such are operated by sailing schools, RTOs etc for training purposes. This should be clarified as the draft standard provides for vessels greater than 7.5m. While not an issue for the standard itself, should the intent to apply it under legislation only to relevant commercial vessels under 7.5m, this	Standard amended to clarify that the >2nm refers to the distance from the coast in C waters. It does not apply in D or E waters, for example in Port Philip Bay. The waters surrounding an island >2nm from the mainland coast would all be treated as >2nm. The RIS reflects the proposed application for the standard. If the application was

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	would be a considerable departure from the current understanding in the recreational boating industry, particularly the boat share/boat club sector.	changed, the RIS would be amended.
Table 2	30 2nm offshore is not a suitable cut-off point. Vessels are exempt liferafts and have internal flotation to AS1799 as exists at present. New level flotation requirements should only apply to new vessels following a transition period and existing vessels being grandfathered.	Standard amended. Liferaft not required if within 15nm and vessel has level flotation.
Table 2	31 Isn't the issue around distance from a safe haven or place to land rather than distance offshore.	The >2nm refers to the distance from the coast in C waters. It does not apply in D or E waters, for example in Port Philip Bay. The waters surrounding an island >2nm from the mainland coast would all be treated as >2nm.
Table 3	32 It is unclear where the requirement to upgrade from 100N PFD to 150N PFD in 2016 comes from. It does not appear to be covered in the RIS. This increase in requirement should be clarified as to origin and need, particularly reflecting on the question of intent of the 2nm limit and recommendations for use of PFD in international standards	Standard amended. Reference to 150N PFD removed.
3.3 Flotation Performance	33 We agree to have a list of standards as per the ABP, however where a standard is used in the determination of level flotation, it should not be mixed with another international/national standard in the determination of Engine Power rating (Section 3.4) or Maximum Load Capacity (Section 3.5).	Standard not amended. The maximum power rating can be determined using an unrelated standard. However, standard amended so that the principle in clause 3.2 only applies to clauses 3.3 and 3.5
3.3 Flotation Performance	34 Apply the NSCV Part C6B as the technical standard for flotation performance. This would require a removal of reference to ABYC for basic flotation in C6B because standard practice is to maintain the same standard for the whole design. The NSCV is preferred because: 1. The different standards are not assessing the same thing so can't be sensibly used as alternatives. If you take a 7m boat as an example, the ABYC determines capacity based solely on volume while AS1799 and ISO 14946 require the stability	Standard not amended. The clause only requires the methodology in the nominated standard to be used to determine level flotation or

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	<p>to be assessed, ABYC also applies a lesser mass per person. In this case the ABYC requirements would give a much greater load capacity for the same boat.</p> <ol style="list-style-type: none"> 2. The AS and ISO standards have differing requirements depending on operational area, protected and open waters in AS1799, Design Category A,B,C,D in the ISO standards. The ABYC standard does not consider operational area, so again the different standards would give different results. 3. For vessels less than 7.5m, NSCV 6A refers to AS1799 for D & E areas so determination of load capacity is already covered in the existing NSCV requirements. 4. For vessels less than 6m and open vessels up to 24m, NSCV 6B covers the requirements for buoyancy in Appendixes C to F so the requirements are already covered. 5. Referring to the NSCV in all cases makes the whole process simpler and more uniform. 	<p>load capacity. The nominated standard may include other elements, such as permitting basic flotation, but they are not relevant to the application here. The nominated standard may not apply level flotation beyond 6m, but again that is irrelevant.</p>
3.3 Flotation Performance	35 Allow optional standards as per ABP	Noted.
3.3 Flotation Performance	<p>36 The consistent application of standards is considered a sound requirement to prevent cherry picking requirements to suit preferred outcomes and to ensure principles of standards are maintained. However, it is equally considered appropriate that multiple options for standards are available for use, where relevant, to ensure recognition of international standards systems and not unduly restrict compliance options for vessels designed and built in overseas markets.</p> <p>That said, if the principle of consistent application is applied fully, in cls 3.3 a) if NSCV Part C 6B is to be available as an option for assessing flotation, complementary NSCV standards for loading and powering should also be specified in subsequent subclauses 3.4, 3.5 and 3.7.</p>	<p>The NSCV does not set the maximum power for a vessel.</p> <p>Standard amended so that the principle in clause 3.2 only applies to clauses 3.3 and 3.5.</p> <p>The maximum power rating can be determined using an unrelated standard.</p>
3.6 Fuel Systems	37 We agree to the application of the NSCV for fuel systems and is the right standard for these craft, however how is compliance to be ascertained (CoC for the fuel system issued or simply a statement of compliance/suitability). It may also be difficult to apply this standard to a PWC and the relevant SAE/ISO standard should be applied to these vessels.	<p>Noted.</p> <p>The legislation will determine how compliance is determined.</p>
3.6 Fuel Systems	38 NSCV C5A addresses fuel tank installation very well, ISO 21487 would be an appropriate option for tank construction where PE tanks are used	Standard amended to include ISO standards as an option.
3.6 Fuel Systems	39 The requirement that all vessels, where using an engine, within the scope and application of this standard be required to comply with NSCV C 5A Chapter 4, while in general is a sound principle, may present problems for some types of vessel, particularly those	Standard amended to include ISO standards as an option.

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	<p>designed and built in overseas markets to other, potentially varying, but equally safe, regulatory requirements. The requirements of NSCV C 5A Chapter 4, in full, may be considered onerous for smaller vessels (say <5m) with limited ability to design, install and operate fuel and engine systems as required as it is not clear that the NSCV standard was developed with such vessels in mind.</p> <p>However, this requirement is at odds with cls 1.1 Scope which states that the standard covers vessels not required to comply with NSCV Part C. Additional options for compliance would therefore be recommended to be considered.</p> <p>It would also be useful to clarify whether a comparison of NSCV C 5A Chapter 4 has been made against relevant international standards including those from ISO and ABYC.</p>	
3.7 Personal Watercraft	39 It is to be recommended, due to the nature of the design of PWC's sometimes being easily swamped, that Section 3.7 of the Standard should also require a physical inversion test of the PWC, whereby the PWC is left inverted in the water it's intact state for a period of 30 minutes to ensure no water penetrates into the hull and that the watertight integrity of the hull is sufficient for its intended use. It is noted that ISO 13590 is only a basic flotation requirement.	Standard not amended. The ISO standard is widely used and well regarded. To add extra tests would be difficult to implement.
Table 4	40 Marine radio ref to "area of VHF service". Service provided by whom? Answer will vary across states and within states if you are thinking of rescue groups.	Noted.
Table 4	41 Column 2 Row 5. The requirement for a Class 1 MF/HF transceiver exceeds the requirements for vessels in survey where a Class 2 MF/HF transceiver is considered adequate for operational areas B, C, D and E.	Standard amended to align with NSCV.
Table 4	42 Column 2 Row 7. Move paragraphs 2 to 7 into Annex A Table A.1 with the other compliance criteria.	Standard not amended.
Table 4	43 Marine radio: Add after the first sentence: "If a DSC-capable radio is installed, it shall be fully operational, ie programmed with an AMSA-assigned MMSI (unique to the vessel) and contain or be connected to a GPS receiver."	Standard amended to align with NSCV C7B.
Table 4	44 Column 2 Row 4. Note that ISO 12402-5 does not have requirements for the L50 PFD to be a conspicuous colour as do the Australian Standards.	Standard not amended. Colour is not a significant safety factor for a Level 50 PFD.
Table 4	45 There is no minimum standard provided for first aid kit. Clarification of the requirement would be useful in the document.	The size of kit will vary according to circumstances. Standard amended to include a note to suggesting that OH&S legislation may provide more

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			detail.
4.3 Requirements for carriage, care and maintenance of safety equipment	46	Recommend a second note after 4.3 that the operator and crew must have knowledge of how safety equipment operates, perhaps a reference to Part E.	Standard amended. Training/ induction on safety equipment would form part of the NSCV Part E requirements.
Annex A	47	Will there be provision of resources to maintain the National Register of Compliant Equipment in the future? This will be an important facility to maintain to ensure new equipment is suitably assessed and operators made aware of acceptability of such.	Noted. Decisions on the NRCE are beyond the scope of the standard.
Annex A	48	Annex A Table A.1 Evidence of Compliance - Within column "Minimum Evidence of Compliance" under the requirement "Flotation performance, maximum load capacity and maximum power capacity" Delete paragraph 4 "For production vessel, evidence determined under the supervision of a Notified Body using Module Aa (or B+C or B+D, or B+E or B+F or G or H) of the Recreational Craft Directive (RCD) is acceptable" This statement is incorrect and a vessel being built to the referenced modules does not indicate level flotation of the vessel. Moreover module Aa is self assessed and does not require a notified body of the RCD to supervise.	Standard amended. Reference to "Notified Body" deleted. Clarified that the requirement applies to the type of evidence. It needs to be coupled with the appropriate mode in the ISO standard.
Annex A	49	Is it considered that a properly fitted ABP displaying level flotation is sufficient evidence to cover? - A statement by a competent person shall etc? A builder needs to retain technical data for the ABP but is not necessarily obligated to provide it to the purchaser, this may cause additional cost if asked to do so.	Standard amended. Annex is informative with the regulatory requirements setting out the actual means of determining compliance.