

Consultation Feedback Report

National Standard for Commercial Vessels, Part C – Design and Construction, Section 1 – Wheelhouse visibility, escape, accommodation and personal safety (NSCV C1) Edition 2.0

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Introduction

The Australian Maritime Safety Authority (AMSA) has developed a new edition of the National Standard for Commercial Vessels, Part C – Design and Construction, Section 1 – Wheelhouse visibility, escape, accommodation and personal safety (NSCV C1).

The planned commencement date of the new standard is **01 July 2024.** AMSA invited feedback from Australia's domestic commercial vessel (DCV) sector through a public consultation process to ensure the proposed changes to NSCV C1 would be relevant and fit for purpose in ensuring vessel safety.

The purpose of this document is to outline our public consultation approach, provide a summary of the feedback we received, and illustrate how this feedback has shaped the new edition of NSCV C1.

Consultation Approach

AMSA ran a public consultation process to gather feedback about the proposed changes to NSCV C1. This was conducted through a public-facing consultation hub on the AMSA website for a period of 8 weeks, from **28 February** until the **24 April 2022**. AMSA promoted consultation via both targeted and broad communication activities.

The consultation hub provided an overview of NSCV C1, the proposed changes, and an online feedback form through which people could submit their feedback. To facilitate this process, we published the following on the consultation hub:

- a consultation paper containing a summary of the proposed changes, reasons for the changes, and key questions for consultation
- a draft revised NSCV C1 with the proposed changes highlighted
- a clean draft revised NSCV C1
- AMSA's regulatory costing analysis for the proposed NSCV C1 changes
- miscellaneous amendments that would be required to NSCV C7C.

During the consultation period, AMSA also delivered a public online information session, and published frequently asked questions and answers on the consultation hub.

The proposed changes

The public consultation invited feedback on the following key changes to NSCV C1:

- · Simplification of the required outcomes to improve readability.
- Simplification and clarification of the field of vision from the operating station requirements.
- Changes to the accommodation space requirements for special personnel.
- Minor changes to headroom requirements for larger vessels.
- Changes to ensure compliance with the Maritime Labour Convention (MLC) 2006 for vessels subject to the convention.
- Strengthened natural and mechanical ventilation requirements to improve air quality in enclosed spaces.
- Changes to the noise level requirements, by allowing smaller vessels to comply with work health and safety requirements.
- Changes to voyage time thresholds for the provision of toilet and ship sanitation
 facilities on Class 2 and Class 3 vessels with only crew onboard, to reflect current
 societal expectations and current model WHS code of practice.
- Incorporation of additional national and international standards, including disability access standards and standards covering stair and ladder requirements.
- Clarification of escape lighting and signage requirements.
- Changes to escape route requirements and the design of escapes serving a space.
- Modernisation of the low-capacity escape solutions within the standard.
- Clarification around the definitions of 'special purpose decks' and 'special working decks.
- Improved mitigation of the risks of persons overboard by allowing new technologies to be employed and by establishing a 'no climb zone' on public transport vessels.
- Minor changes to standards for steps in stairs based on updates to Australian standards, National Construction Code, and the International Code of Fire Safety Systems (FSS Code).
- Greater flexibility for pilot vessel colour, and clarification of the requirements for continuous safety rails on pilot vessels.
- Greater flexibility on vessel access requirements, so that gangways can be wharf supplied.

Consultation feedback questions

During the public consultation, AMSA invited stakeholders to respond to the following questions via the online feedback form on the consultation hub.

- Readability Is the new format easy to follow? Is the structure and layout logical? Is the content sufficiently detailed or overly complicated?
- <u>Cost implications</u> If you were to construct a new vessel to these proposed new standards, do you think the cost be higher, lower, or similar compared to the current edition of the NSCV C1 standards?
- <u>Safety benefits</u> Does the proposed new standard improve the likelihood of increased safety outcomes?
- Risks Does the new content concern you? Is the proposal practical and implementable?
- <u>Gaps</u> Is there anything else you would like to see included in the new edition, in particular regarding new and emerging technology? If so, please indicate where in the standard it would best fit.

Online information session

Our promotional communication activities included an invitation and registration link to attend an online information session on **29 March 2022**. As a result of the promotional activities, 78 stakeholders registered to attend, with representation from vessel designers, surveyors, registered organisations, naval architects, shipwrights, boat builders, vessel operating companies, government departments and agencies.

The Webinar included a list of frequently asked questions (Table 1.) which are also published on the consultation hub. Questions arising from the webinar session are detailed in Table 2.

Table 1: Frequently asked questions and answers around proposed changes to NSCV C1

Question	Answer
Our vessel is a small boat <5m and does not carry passengers, are we still required to provide escape lighting?	Probably not, small open boats we will consider further. MO504 still has the requirements to identify an assembly station for all class 1, 2 and 3 vessels (this however could be done on a drawing or diagram within the SMS).
Can we limit the No Climb Zone on vessels carrying children?	Yes, that's already implied by having the no climb zone only applicable to passenger vessels (we will review the drafting of the provision and make the link clearer).
Did AMSA consider disabled access in this update?	Yes, the accessibility sections of this standard have been updated, the Human

	Rights Commission was consulted as a subject matter expert.
What are the requirements for toilets on vessels where the wharves have no adequate public sanitary facilities?	Same as the current standard, no changes have been proposed.
Can we include graphical illustration on assembly stations?	We will look at defining an assembly station and we may provide an illustration as part of the definition.

Table 2: Questions and feedback from the online information session

	Question or feedback	Answer	
1.	Will the headroom requirement be applicable for vessels built before the new NSCV C1 comes into force even if the vessel comes into survey after C1 is in force?	No, updates in the NSCV are generally applied to new vessels or heavily modified vessels once the standards commence. As per the consultation paper, the applications of the proposed new NSCV C1 is as follows (allowing for a transition period as per your example):	
		Date of construction or modification	Application of NSCV C1
		1 January 2023 to 31 December 2024	Vessels constructed or modified may comply with either thecurrent NSCV Section C1 (Edition 1.2, dated 24 July 2018) or Edition 2 of NSCV Section C1.
		1 January 2025 or after	Vessels constructed or modigied must comply with Edition 2 of NSCV C1.
2.	Would a portable toilet be considered as a toilet		ed as part of the proposed toilet could be engineered and

	suitable for NSCV C1 requirements?	maintained to comply with the definition within NSCV C1 (I.e the portable toilet might need to be fixed or secured, and the temporary holding tank would require periodic emptying and maintaining etc).
3.	Naval Architects cannot realistically assess wheelhouses as per the current C1 document. Is this to be removed or able to be assessed by other surveyors?	Can you please clarify? When you say the current C1 do you mean the one is in force now or the new proposed C1? Either way we welcome detailed feedback highlighting any issues you have had or predict you may have with either the current NSCV C1 or the proposed NSCV C1.
4.	No its about disability access requirements vs sill heights (there is a conflict) and can you please answer our question on vessel lengths?	The proposed NSCV C2 says 'Where there are deckhouses or superstructures within which there is access to below the deck level, the height of door sills must not be less than the height prescribed'. The NSCV allows for flash hatches in any position if they are normally closed at sea, which is a key change to the current USL code. NSCV C2 also allows for no sills in some circumstances, or a very minimal sills to just provide a seal. The new 24m Sydney ferries are an example, only having hatches normally closed at sea on the weather deck. Therefore, no sills will be required on the lower passenger deck (just a couple of sliding doors), making them accessible for people with disabilities.
5.	Does AMSA provide guidance for the design standard for gangways, which are fitted as part of vessel?	Yes, in clause 6.13 of the new proposed NSCV C1 the notes provide some guidance, also to external resources.
6.	You'd better make it easier to build ferries over 35m if you are proposing to limit the area available for seating per the 'no climb zone' proposal. Surely parents have some responsibility to supervise.	The 'no climb zone' proposal has two options. One of the options will not reduce seating capacity at all and just requires higher guardrails if seating is placed against guardrails.
7.	Without C2 being finished how do you propose to reconcile this with current sill height requirements etc?	It is anticipated that NSCV C2 will be available before the end of 2022, which is before NSCV C1 is proposed to commence.

Other feedback

AMSA also consulted the National Safety Committee, prior to public consultation to assist in identifying any potential safety and industry concerns. National Safety Committee members are appointed for their expertise and ability to represent the wider interests of their stakeholder group across the domestic commercial vessel sector. For reference, the National Safety Committee's membership and Terms of Reference are available here:

https://www.amsa.gov.au/our-committees/safety-committees

Consultation Feedback

Summary of submissions

AMSA received 22 submissions through the consultation hub. The submissions focussed on the 5 questions, aimed at encouraging stakeholders to provide feedback on Chapters 1 to 6, the Annexes, as well as general feedback. Table 3 outlines the number and type of feedback received.

Table 3: Overview of submissions received during the public consultation

	Received	Confidential	Not confidential
Public consultation submissions	22	9	13

Key points arising from feedback

General issues

- Several stakeholders identified typographical and grammatical errors in the standard. These have been corrected in the new edition.
- Stakeholder feedback presented opportunities to make changes to several sections to simplify and improve readability. This included providing examples, and the addition of tables and diagrams.
- Several respondents suggested clarification of existing definitions and the addition of new definitions.

Concerns regarding the 'No climb zone'

• Several comments indicated confusion relating to the 'No climb zone'. A 'No climb zone' is an exclusion area adjacent to a guardrail in which no furniture or other obstructions may be placed which would reduce the effective height of that guardrail. This requirement would apply to certain Passenger vessels which can reasonably be expected to carry children less than 12 years old. A new Annex C has been developed for 'No climb zones' on public transport vessels. The changes also include an additional signage option as a deemed to satisfy solution, to provide more flexibility for vessel operators to comply with the standard.

Operating station / field of vision

- One of the proposed changes was the requirement that a vessel's primary operating station be separated from passenger spaces apply to Class 1 vessels ≥15m, rather than Class 1 vessels ≥24m. A similar proposed change was to apply the alternative field of vision criteria for the primary operating station to vessels <24m, rather than <45m. Industry were sceptical of the utility and effectiveness of both proposed changes.
- One responder identified several opportunities for further alignment with International Maritime Organization (IMO) standards.

Accommodation spaces

- Respondents commented on changes to the application of headroom heights for larger vessels and the definition of crew berths in the current edition. Respondents were divided re. whether the proposed changes were ok.
- Two respondents made comments regarding updated noise and vibration level standards (particularly the application of these standards for smaller vessels).
- Several comments of feedback expressed concern regarding the clarity of proposed changes relating to natural/mechanical ventilation.
- Several respondents questioned the need for seats to have a safe working limit of 200kg.
- One person stated the view that all passenger service vessels should have toilet facilities regardless of size.

Escape and evacuation

- One respondent requested clarification regarding alternate escapes. Enhanced requirements for the alternative means of evacuation analysis during the design process to ensure movement of passengers and crew have been detailed in the new edition.
- One person queried the relevance of escape lighting on smaller vessels.
- Two respondents expressed concerns regarding changes to the height of bulwarks and guardrails, suggesting that they did not account for certain marine industry requirements, and created rather than mitigated safety risks in certain circumstances. These comments related to the to the workability of the height of bulwarks and guardrails in relation to special purpose and special purpose working decks.

Summary of key changes in response to feedback

Many of the minor changes were made to the standard as a result of the consultation feedback received. The key changes made in response to consultation feedback are summarised in the following table.

Table 4: Summary of key changes in response to feedback

Issue / Topic	Changes
Editorial corrections	The editorial updates will correct minor typographical errors across the standard. These corrections do not change the effect of the provisions.
Chapter 1 - Preliminary	
Application to new builds or modified vessels	Miscellaneous amendments made to the application section of Part B to incorporate a transitional period of 24 months for new vessels.
Clarification of definitions and new defined terms	Definition of 'assembly station' (also known as muster station) added.
	Definition of 'clear width' with a new diagram added.
	'Enclosed area' and 'enclosed accommodation space' definitions amended for clarity.
	'Escape' – reference to <i>personnel</i> changed to <i>persons</i> .
	Definition of 'horizontal course' added.
	Definition of 'Low Location Lighting (LLL)' added.
	Definition of 'public transport vessel' added, which refers to the Disability Standards for Accessible Public Transport 2002.
	'Special working deck' and 'special purpose deck' definitions amended for clarity.
	Definition of 'toilet' amended.

	Definition of 'voyage' amended.	
	Examples have been included for some definitions to provide stakeholders with more guidance.	
Requirements associated with the 'No Climb Zone' are creating confusion	Table 30 – Preventing falls overboard on public transport vessels and Annex C created to specify the standards for the 'no climb zone'. Figure C1 added to improve clarity. Additional signage option (Administrative control added post external consultation) to provide greater flexibility.	
Chapter 2 - Required Outcomes		
Required outcomes for operating stations	Wording of the required outcome amended for clarity.	
Required outcome for medical care on board vessels	Clarification that the required outcome applies only to vessels on extended voyages.	
Vessel potable water arrangements	New reference to Australian Drinking Water Guidelines, published by the National Health and Medical Research Council (NHMRC) for appropriate provision of potable water.	
Required outcomes for exits, escapes, and evacuation	Wording of the required outcome amended for clarity.	
Vessels considered public transport are required to comply with applicable disability discrimination legislation and access requirements	Wording of the required outcome amended to ensure that NSCV C1 is not imposing obligations separate to the Disability Discrimination legislation.	
Required outcome for retrieval of a person overboard	Wording amended to clarify that the vessel's design and arrangement must enable the retrieval of a person overboard without placing the rescuer(s) at additional risks.	
Chapter 3 - Operating Stations		
Class 1 (passenger) vessel primary operating station	The requirement for the primary operating station to be separated from passenger spaces was proposed in the consultation draft to apply to Class 1 vessels ≥15m (reduced from ≥24m).	
	As a result of feedback, this has reverted to 24m as stated in the current version.	

Field of vision criteria	In the external consultation draft the alternative field of vision from the primary operation station criteria was proposed to apply to vessels <24m, instead of <45m as stated in the current NSCV C1. As a result of feedback, this change has been removed and the requirements once again apply to vessels <45m, in line with the current NSCV C1.	
Vessel operating / steering position	Changes made to improve clarity. Improved diagrams and new diagrams were also included to further improve clarity.	
Location of polarised or tinted windows	Diagrams updated to include illustration of the tinted or polarised window provisions.	
Pitching allowance	Clarification that 'pitching allowances' for the field of vision requirements should be reasonable for the design of the vessel.	
Chapter 4 - Accommodation Spaces		
Special personnel	Changes to the application of the requirements to special personnel. Accommodation spaces for special personnel must comply with the requirements for passenger spaces where the vessel is a Class 1 or special purpose vessel and must comply with the requirements for crew spaces for all other vessels.	
Natural ventilation	The requirements are now based on deck or floor area of the space.	
Headroom	Clarification of the allowance for reduced headroom in compartments not designed for permanent sustained occupation.	
Noise in accommodation spaces	New table to help outline the applicable noise standard for accommodation spaces.	
Berthed accommodation spaces	Changes to the table to clarify the application of the requirements to special personnel.	
Seating accommodation	Changes to the portable seating options and the 'no climb zone' requirements on public transport vessels. A new signage option is now available where seating is placed in the 'no climb zone'.	

Sleeping accommodation for passengers	Additional requirement to ensure separation of passenger accommodation from cargo and storage. Changes to clarify application of the requirements to special personnel.
Toilets and wash basins on vessels	Changes to the table to improve clarity. Reduced thresholds for the provision of toilets and wash basins on Class 2 and Class 3 vessels with crew only. Inclusion of a note to refer to the <i>Model Code of Practice: Managing the work environment and facilities</i> on requirements to provide adequate facilities.
Potable water	New protective measures to maintain the integrity of materials used within the potable water system and how the water from these tanks can be drained.
Access for persons with disabilities	Wording amended to ensure that NSCV C1 is aligned with and does not impose obligations additional to the Disability Discrimination Act 1992.
Chapter 5 - Escapes and evacuation	
Means of escape / escape route	Minor change from 'escape' to 'means of escape' or 'escape route' where applicable within the chapter, to ensure consistency in use of term 'escape'.
Ladders	Minor change from 'ladders' to 'fixed ladders' to differentiate detachable or portable ladders.
Types of escapes from workspaces	Reverted to current provisions on NSCV C1 and enhanced the table for better understanding.
Stairway for accessing spaces for Class 2 & 3 vessels	New allowance for stairways accessing machinery and small spaces on Class 2 & 3 vessels.
Angles to the horizontal of stairways, walkways and ladders	Diagram updated to align with changes to standards and the provisions.
Alternative means of evacuation by analysis	Enhanced requirements for alternative means of evacuation by analysis during the vessel design process to ensure movement of passengers and crew along escape routes.
Escape markings	Changes to the provisions to clarify the minimum performance requirements for low location lighting (LLL).
Chapter 6 - Personal safety	

Fall protection	Changes to the provisions to improve clarity.	
Passengers accessing general purpose deck	Practical approach on maximum permissible clear opening on general purposed deck between horizontal courses. The new approach eliminates the requirement for passengers to be of a minimum specified age.	
No climb zone	Additional signage option for managing 'no climb zones' on public transport vessels.	
Anchor points	Alignment of terminology of clipping points with contemporary language (anchor points).	
Gangways and accommodation ladders	Changes to the provisions to improve flexibility in access arrangements.	
Annex A – Methodology for determining the minimum required aggregate width of doors, stairways, corridors and walkways serving a space		
	No significant changes.	
Annex B – Marking and signage		
Marking and signage standards	Clarification that the annex applies to markings and signage of escape and evacuation paths on vessels with 12 or fewer berthed passengers and 36 or fewer non-berthed passengers.	
Annex C - No climb zone		
No climb zone	New Annex C for 'No climb zones' on public transport vessels. Provides the technical requirements for increasing guardrail or bulwark height where seating is placed in 'no climb zones' on public transport vessels.	

Miscellaneous Amendments

As a result of the changes contained in the new edition of NSCV C1, miscellaneous amendments will need to be made to the following related standards:

- NSCV Part B General requirements:
 - o Clarification regarding the general application of the NSCV
 - o Updating relevant reference standards within the NSCV
- NSCV C7C Navigation equipment:
 - Movement of the requirements for the arrangement of navigation signals from NSCV C1 to NSCV C7C so that like requirements are co-located

Appendix A - NSCV C1 public consultations - feedback submissions

Targeted feedback questions

During the public consultation process we invited respondents to consider the following questions relating to the proposed changes to the chapters and annexes of NSCV C1, in addition to providing an opportunity for open-ended feedback.

- Readability Is the new format easy to follow? Is the structure and layout logical? Is
 the content sufficiently detailed or overly complicated?
- **Cost implications** If you were to construct a new vessel to these proposed new standards, do you think the cost be higher, lower, or similar compared to the current edition of the NSCV C1 standards?
- **Safety benefits** Does the proposed new standard improve the likelihood of increased safety outcomes?
- Risks Does the new content concern you? Is the proposal practical and implementable?
- **Gaps** Is there anything else you would like to see included in the new edition, in particular regarding new and emerging technology? If so, please indicate where in the standard it would best fit.

The submissions received have been reproduced in the following tables: Respondents who requested that their feedback be treated as confidential have been marked accordingly, and their comments marked with a (C).

Raw feedback data

Chapters 1 & 2 – Preliminary and Required Outcomes

Of the 22 submissions received, 8 addressed Chapters 1 & 2 Preliminary and Required Outcomes. This feedback is set out in the table below.

Table A1: Feedback relating to Chapters 1 and 2

Chapters 1 and 2 - Preliminary and Required Outcomes

1.5 (1) (enclosed areas or spaces)

Comment: Enclosed space fitted with temporary enclosures i.e. clears or screens. Definition should relate to enclosures only.

1.5 (1) (b) (special working deck)

Comment: Include reference to passengers. Go back to referring to 2 (ii) in the previous 'National Standard for Commercial Vessels'.

1.5 (1) (voyage)

Comment: Should not include the loading and unloading time.

1 & 2. Preliminary and Required outcomes

Definition of toilet — does not need to be fixed- small boats should have option for porta potty as currently overly onerous

Public transport — there are conflicts between Disability Discrimination Act (DDA) requirements and stability/weather and watertight requirements (i.e., sill heights — we welcome DDA access but for small craft you have not articulated how these conflicts will be managed creating more complexity potentially).

Enclosed areas or spaces: This requires better wording.

'Enclosed space means an enclosed space.......' is ambiguous. Use of the words 'or may be,' would suggest that any deck is an enclosed space just because it 'may' be fitted with a deckhead.

EXAMPLE – The fully enclosed internal passenger seating area on a COMMUNTER ferry.....c'mon guys!

Transdev Sydney Ferries are satisfied with the proposed changes and offer no further comment at this time.

1.5 Definitions 'Voyage'

The definition of Voyage for the purposes of assigned or required accommodation level is inadequate.

1) Definition of an "accommodation space"

This requires more clarity and is currently referred to NSCV Part B, which does have many examples that could cause confusion as to its applicability.

Chapters 1 and 2 – Preliminary and Required Outcomes

- 1 & 2. Preliminary and Required outcomes
- 1.2 (3) If using the expression 'low complexity vessels' a definition will be required. It would be best to state which vessels Annex B applies to. (Non-class 1 vessels with an enclosed space carrying up to 12 passengers.)
- 1.3 (1) This application does not mention anything about new-builds or modified vessels coming into survey within two years from the standard coming into force. As this new version of the standard includes changes to the structural design of a vessel, this creates a type of 'grandfathering' of vessels and it can get confusing for AMS and compliance officers to know which standards apply to each vessel.
- 1.5 Definitions Berthed passenger Concerns that safety outcome of 'Human factor' is not satisfied with the definition for berthed passenger if on board for a period of greater than 36 hours without berths.
- 1.5 Definitions Enclosed areas or spaces amend word 'commuter' in 6th line
- 1.5 Definitions Special purpose and special working deck definitions are lacking and create confusion for compliance purposes.
- 1.5 Definitions Toilet wording of 'temporary holding tank' could be confusing. Propose to amend to include fixed holding tank or remove the word temporary, as it may be taken either as a 'portable tank' or for 'temporary use'.
- 2.2 B Propose to also include outcome for 'Human factors' for vessels without berthed accommodation
- 2.2 J I Amend text 'onboards' to 'onboard'.
- 2.2 J I and (f) Clarify that the word designer relates to the vessel designer.
- 2.2 F (d) Amend text 'facilities' to 'facilities' in line 6

Safe access to and from vessels

We would caution the standard against requiring the designers to undertake a user needs analysis to determine how the operator embarks & disembarks the vessel as it is commonly very difficult for the designer to have access to such information or be suitably equipped to determine the best solution – this should be task allocated to the surveyor on the project as they are required to be across all operational aspects of the vessel and how it operates which includes the embarkation and disembarkation.

A designer could absolve them of this responsibility by adding notes to a particular drawing but the intent of the standard would be to make sure something is done to a safe standard.

Of the 22 submissions received, 10 addressed Chapter 3 – Operating Stations. This feedback is set out in the table below.

Table A2: Feedback relating to Chapter 3

Chapter 3 - Operating stations

The wheelhouse should always have control stations at each wing. The Bridge should be almost the length of the Beam pf the Vessel to have a view forward and aft of the vessel to manoeuvre safely into berths and have view of transfer of passengers and also crew and the operations they conduct.

Small wheelhouses do not allow for sufficient space to post an adequate lookout and often they are required to stand behind the Master which does not have an adequate field of view especially on small high speed vessels where craft can come from all directions.

3. Operating stations

3.4 (1) (a) (Field of vision from the primary operating station)

Comment:- Formatting error. Please insert 'or' (e.g. Table 2 Figure 1; or)

Table 2 – page 19 (Field of vision from the primary operating on vessels)

Comment:- Formatting error. Numbering in 'Item' column needs to be in sequential order after 3.4.2.

3.5.11 (Vertical field of vision from the operating position)

Comment: Define pitching definition (also in Figure 2).

3.5.13 (View to the side of the vessel)

Comment:- Removal of 3.5.13 in its entirety for less than 24mtrs.

Comment:- Limit to be changed from 24mtrs to 45mtrs.

Comment:- Removed the option for alternative compliance, why?

Figure 2 – page 23 (Field of vision for vessels greater than or equal to 24m from the operating station (clause 3.4)

Comment:- Define pitching definition.

3.5.15 – page 20 (Operating station windows)

Comment:- To be removed. Not practical, based on modern design, to have windows inclined.

3.5.15 – page 21 (Operating station windows)

Comment:- Sequential number order needs to be corrected to

3.5.16, as there are two 3.5.15 sections.

Comment: - Polarised should be greater than 45mtrs, rather than reference to greater than 24mtrs.

3.5 (2) – (Glazing materials and tinting of windows used for navigation)

Comment:- In the 'NOTE' section change reference to Clause 3.5 to 3.4.

3.5 (4) (d) – (Glazing materials and tinting of windows used for navigation)

Comment:- Spelling mistake. Change 'colours' to colours.

3.6 (8) – (Operating station layout, design and arrangement of navigational systems and equipment)

Comment:- Spelling mistake. Change 'controller able' to controllable.

'Crew stature range' is a bizarre and undefinable concept- drop this. Define what sector needs to be watched and leave it there

As with most of the NSCV pointing to an ISO standard adds extra cost and complexity- if you are going to do this under legislation you MUST provide d free copy of these documents on request.

Limiting framing Table 2 contradicts structural requirements for windows- as you still haven't resolved C2 this directly conflicts with your own requirements

Operating stations 3.5 (2) NOTE: Reference to 3.5.16 is incorrect

Transdev Sydney Ferries are satisfied with the proposed changes and offer no further comment at this time.

Table 2, 3,5,12

The operating station must be arranged with at least 1 location on each side that provides a horizontal field of vision extending over an arc at least 225°, from at least 45° on the opposite bow through right ahead and then from right ahead to right astern through 180° on the same side of the vessel.

This clause needs to provide greater flexibility. 1 location on each side that can provide the required arc is very difficult or may be impossible on some types of vessels.

Table 2, 3,5,15

The front windows of any operating compartment must be inclined from the vertical plane top out, at an angle of at least 10° and not more than 25°.

In our view this clause in unnecessarily restrictive. By example there are many classes of high-speed ferries and other types of commercial vessels globally that have frond winds raked aft from the vertical, or in some cases placed vertically. Southerly Designs regularly design commercial vessel over 24m in the international market with front windows inclined forward at 30 deg, or inclined aft ward at 45 deg. This does not cause any issue with class or flag state.

Table 2. 3.5.15

Polarised or tinted windows must not be fitted to windows in the operating compartment.

Classification society and related rules the provisions of the table for vessels under 24m are generally applicable to large vessels as well. The typical operating compartment on a 50m fully classed crew vessel will have clear windows facing forward and the forward most window on each side. The remaining side windows and aft facing windows are allowed to be lightly tinted.

Figure 2.

The 'pitching allowance' for vessel above 24m is not defined in any way.

Table 2, 3,5,17

Clear view

Non mechanical methods of maintaining the clear view should be allowed for. For example various kinds of glass treatments or even nano technology.

Clause 3.5.4 Note on recommended compliance:

AMSA must recognise that type approved products of any kind are frequently unobtainable in the Australian market.

Clause 3.6.8

On a vessel having more than 1 steering position, any steering position with propulsion and manoeuvring controls that are not in use must be able to be disengaged.

This is potentially a significant issue for 'transition vessels.

Clause 4.6 – Ventilation I Natural ventilation.

The required open areas of windows or vents is defined as a percentage of the compartment volume. Area and volume are not directly comparable. There needs to be units of measurement.

E.g. The area in m2 shall be 4% of the compartment volume measured in m3.

4) Clause 3.5 (4)

Is 80% anti-glare reduction a condition?

6% visible light, correct?

In the diagrams – a forward deck obstruction could be better illustrated by actually showing an object in the field. Previous version seems to be clearer in some aspects.

3.5.3 – The numbering in the table is not consecutive; 3.5.3 should be 3.4.3 and same thereafter.

3.5.15 – Please check table numbering 3.5.15 is repeated (should be 3.4.16) Also reference to 3.5.16 in the table in Note under 3.5 (2)

3.5.12 - 3.5.14 - Is the use of cameras an equivalent means of compliance for the field of vision astern and side vision as per 3.5.12? If so to be included in the text or example.

Wheelhouse visibility

These legislations are best practiced to newly design vessels for promote the wheelhouse visibility and also existing vessels which are current operations under USL standard and not meet that requirements, to be modified under new rules and regulations, to promote the vessels safe operational and clear visibility consider the safe operation and minimised the navigational hazard at sea. I believe that consultation draft given new measurements and operational stations (Helm of the ships) locations and positions of operating are providing designated measurement and separate helmsman, giving information's senate on category of vessels are more effective visibility for vessel navigate at rough seas, wild weather and seasonal changers etc. Also technically this way allows to operator to suitable stature range on confidence to operating station and position comfortable with vertical eye position above the deck and operating positioned to be facilitate with standing and seated on wheel house or primary location from clear visible way to control the speed constantly and direction of the vessels while remaining alert for navigational hazards and clear look out. There for given designs information's and constructions measurements are best solution for promote the visibility improvements many of small vessels early build without safe construction regulations. Also given measurement from operation (helmsmen) position from field and sea surface vision through Horizontal, Vertical, Sides and Astern eye angles and degrees of measurement are perfect accesses to visible while vessel pitching, rolling at sea. The new rules for the wheelhouse front windows and their vertical plane must be inclined from vertical plane that mean front window must be fitted below the

vision obstruction from clear view horizontal of high eye position of 10 degrees, and low eye vision to be forecastle over sea surface from operating position at the 25 degrees. Also and polarised tinted window not allowing to operating compartment regulating operating compartment to be front and rear windows must maintain clear and to be contained with mechanism to fully opened or fully closed to when required clear the blind glass.

The current wording of the standard seems to imply that forward windows in the operating compartment must be forward raked at an angle of 10 to 25 degrees. This should be clarified to confirm that aft raking windows are acceptable and that even vertical may be acceptable in certain instances – otherwise existing designs and production vessels seeking compliance to the NSCV will have no option other than to seek an exemption.

Perhaps it should read along the lines of "if forward facing windows in the operating compartment are raked forward, they should be raked at an angle of between 10 to 25 degrees from the vertical".

Of the 22 submissions received, 10 addressed Chapter 4 – Accommodation spaces received 10 responses. This feedback is set out in the table below.

Table A3: Feedback relating to Chapter 4

Chapter 4 - Accommodation spaces

4.14.2.b – Unclear to me whether this clause is only relevant to seating without an adequate backrest? I suggest that one clause should deal with hand holds for seats with inadequate backrest, and another clause should deal with a no climb zone, I can't see how these two issues are related.

4.14.2.b – Suggest the no climb zone be limited to vessels that can reasonably be expected to carry children. Most small vessels will have issues with this in the form of battery boxes, stowage lockers, steps up to raised side deck etc, all of which would now be required to have raised guard rails IWO the obstruction. Some fleet operators such as RMS have a preference to use pax rather than SP to avoid limitations on who can be aboard the vessel, but they are effectively work boats.

4.14.2.b – The no climb zone will mean higher guard rails are required at bollard locations, which will look ridiculous. This will effectively raise the entire height of guard rails to maintain an aesthetic sheer line.

4.14.2.f – SWL of 200 kg seems excessive. The SWL will already have a FOS of about 3, so that's a minimum break load of 600 kg on a seat. Don't need to compound factors of safety.

4.4 (1) (b) - (Headroom)

Comment:- Change 35mtrs to 45mtrs.

4.4 (1) (c) - (Headroom)

Comment:- Change 35mtrs to 45mtrs.

4.4 (2) - (Headroom)

Comment:- Remove time limit in example.

4.4 (3) - (Headroom)

Comment: - Should match 4.4 (1).

4.6 - (Ventilation)

Comment:- Complete re-write of 4.6. Currently impractical, in terms of calculation requirements.

4.6 - Page 30 (Ventilation)

Comment:- 'NOTE 2' change 'superstructure' to superstructure.

Table 5 - Page 32 (Requirements for accommodation, recreational facilities, food and catering for crew and special personnel)

Comment: - 35mtrs pushed to 45mtrs.

Comment:- Cross references to be verified.

4.14 (2) (b) - (Seating accommodation for passengers)

Comment:- To be deleted. Operational hazards can be directed by signage or common sense.

4.14 (2) (f) - (Seating accommodation for passengers)

Comment:- Safe working limits to be reduced to something realistic (most plastic chairs currently 110kg)

4.17 (a) - (Facilities for sick or injured persons)

Comment:- Reference to shared room, isolated for sick people contradicts and is ambiguous. Needs clarification.

General Comment: Throughout this document any reference to 35mtrs needs to be 45mtrs.

4.22 (2) (d) - (Portable Water)

Comment:- Applies to tanks subject to corrosion i.e. Steel (not relevant to other materials).

Headroom height increases are unnecessary

4.7(1)(a) makes no sense?

Table 9- where is 0.81 from??

'No climb zone' is a knee jerk reaction to a problem that doesn't exist. If it's a problem now apply it to all vessels retrospectively- otherwise suggest that parents supervise their children properly and drunk people take the bus.

Safe working limit of 200Kg per seat ?!? how do you determine this and why did you pick this number???

- 4.16 how many passengers under law does the DDA kick in- this should be reflected in the vessel rules
- 4.22 (2) (c) overly onerous and not viable for built in tanks- 'drainable from a bottom drain'
- 4.6 (b) Is mechanical ventilation MANDATORY? It would appear so the way the clause has been formatted. If natural ventilation is an alternative to mechanical ventilation, then the formatting of this clause must be changed
- 4.11 (4) (a) Where does a bunk located in a wheelhouse fit in here? e.g. watchkeeper at anchor should be based in the wheelhouse and may disturb a crew member asleep on a bunk located in the same space. Watchkeeper is technically not using the space to move to another space.
- 4.12 Berths for crew

There have been instances where the partner of a crew member (who is not a passenger) shares a double bed. The standards need to account for this.

4.14 (2) (e) This is a discretionary statement that needs to be changed. Suggest referencing maximum allowable heel angle used in the vessel's stability analysis to determine where portable seating may be used. Alternately, limit portable furniture to smooth water areas, or partially smooth waters where the wave height does not exceed 0.5m trough to crest. Any portable furniture must be resistant to sliding (ref Banyoles Spain incident where portable seating slid aft and trapped passengers who subsequently drowned.)

4.15 Sleeping accommodation for passengers

This clause is lacking detail.

Are there any privacy allowances or can random passengers share a cabin?

What about securing of personal effects (e.g. lockers)?

Minimum deck area per cabin?

Can you have a dormitory style arrangement where potentially 100's pf people are berthed in the same space?

Can people share a double bed? e.g. partners, kids and parents etc

Transdev Sydney Ferries are satisfied with the proposed changes and offer no further comment at this time.

For smaller vessel: 4.14.2.b - No climb zone will severely limit the use of battery boxes, storage lockers, raised steps to side decks etc on any vessel rated to carry pax. This will likely force the use of special personnel only.

For larger vessels: • 4.14.2.b - No climb zone may require raised guard rails IWO bollards, which would ruin the aesthetics of the sheer line. In effect this will probably require the entire guard rail to be raised, unless bollards are placed outboard of the bulwark. Note this vessels carrying pax only.

4.9 noise and vibration.

As far as possible the NSCV code should contain actual deemed to satisfy requirements not simply references to external standards.

External references as a deemed to satisfy solution at significant complication for most owner and operators and require the operator/designer to a. purchase a copy of a typically long and complex standard, interpret such standard and then apply to the specific circumstance.

This generally runs counter to the idea of making the standard easier to understand and easier to use. In fact, this sort of external reference is typically far beyond the capability of most stake holders.

Table 5 requirements for accommodation

The comment above relating to external codes is applicable -in relation to the application of the MLC requirements.

Additionally, we are frequently called upon to provide class 2B AL72+ vessels is sizes as small as 15m. The full application of MLC is such vessels is generally not possible. And in fact

the MLC itself provides considerable flexibility for the 'authority' the modify the requirements in ships of less than 3000GT. In this instance we are talking about the application to vessels less than 100GT down to sizes of 50GT or potentially below. Many of the requirements of MLC are impractical for vessels in this size range.

In fact, it is extremely unlikely that any vessels built under NSCV will ever even approach 3000GT. The vast majority will be under 100GT and only a very few would ever approach 500GT. Applying the MLC without the flexibility implied in that code is impossible for these small vessels

NSCV needs to contain deemed to satisfy requirements.

Table 6 - noise in sleeping rooms

Continuing the theme from above in small high-speed vessels – generally sleeping is not carried out an operational speeds and achieving a noise level of <65db in accommodation spaces of 15, 18, 24m vessel at 20-25kts operational speed is simply not physically possible.

This requirement MUST be modified.

Table 7. floor areas and number of occupants.

Some of these requirements are contrary to the requirements of MLC for AL72+ of vessels above 35m. the interaction of these sets of requirements needs to clarified and rectified.

Floor area for AL 72+ in vessels below 24m needs to be reduced.

4.12.5 tiered berths.

Working with the given dimensions.

Ceiling 1900mm lowest bunk 300mm – clear space 635mm. for each berth. Allows for a total maximum thickness of mattress and base of 165mm per bunk tier. These dimensions should be flexible enough to allow for typical commercial spring mattress thickness. This could be typically 200mm plus base thickness of 35mm. These dimensions render full compliance with the prescribed dimensions impossible. There needs to be some flexibility.

Table 11 — Aisles forming passageways between banks of fixed seating

Aircraft and class approved passenger arrangements frequently have passage widths less than this amount. The requirement should be reconsidered.

Additionally this requirement is in conflict with and exceeds the requirement for escape routes at 5.11 table 22 and figure 6.

4.19.3c

For a vessel assigned accommodation level AL72+ - a dedicated provisions storeroom and cool-room.

There is no way that small AL72+ vessels can include a dedicated store and cool room.

Even many larger vessels prefer to not have a cool room and instead use an adequate number of COTS domestic fridges and freezers.

This requirement is far too onerous.

4.22.2(d) Potable water tanks

As far as possible the NSCV code should contain actual deemed to satisfy requirements not simply references to external standards.

External references as a deemed to satisfy solution at significant complication for most owner and operators and require the operator/designer to a. purchase a copy of a typically long and complex standard, interpret such standard and then apply to the specific circumstance.

This generally runs counter to the idea of making the standard easier to understand and easier to use. In fact, this sort of external reference is typically far beyond the capability of most stake holders

Typical Potable water tanks in service in most vessels in Australia and built to class are not lined.

And ore constructed of either:

Welded Stainless steel. Welded HDPE Plastic, structurally integral aluminium, or structurally integral FRP.

Deemed to satisfy solutions referencing these products should be incorporated.

1) Definition of an 'accommodation space'

This requires more clarity and is currently referred to NSCV Part B, which does have many examples that could cause confusion as to its applicability.

On a fishing vessel, or a work boat a workspace might be more critical than a normal small wheelhouse cabin or mess areas. Crew might be likely to stay more in a work space than any other space on a day boat, depending on its configuration and use.

Are public spaces considered as applicable on 'non passenger' vessels?

What is an office room? Does this need to be enclosed or any open area.

Are we generally referring to 'generally enclosed areas with a door'?

Examples like 'hospitals' and 'cinema halls' in contrast to a 'barber shop' would make people think large and as to why something would fall under this definition which would be smaller in scale.

The idea should be to have proper clarification under C1 itself as this would have implications on escapes and doors etc for certain vessels, noting that Part B might be only revised or looked at later.

6) Table 9

Why 0.81 sqm and not a round figure.

Unless due to any specific reason or taken from another standard, it might be easier for people to calculate with 0.8.

7) Figure 4

No climb zone reg's and diagram is causing confusion.

Might need further clarity on its intention. Are we addressing the risk of children climbing on seats whereby increase in guard rails are required?

Are we specifying a minimum height above floor for the seats as well?

Is it easier to specify a minimum distance above seats up to bulwark top or handrail in a more simplified way?

4. Accommodation spaces

- 4.6.(b) Please provide justification for mandating mechanical ventilation for all vessels under C1.
- 4.14 (2) (b) Additional justification (stats of incidents involving accidental MOB) is required in support of the proposed guardrail extension. Clarification would be needed of minimum area around sitting where the no climb zone would apply. A 'no climb zone' is likely to have major implication on the design of future vessels. If all seating on open decks was moved inboard to accommodate a no climb zone, then this may encourage passengers to stand and crowd around deck perimeters, rather than remain seated.

Passengers have a duty of care and it could be sufficient if they are advised of any hazard area (briefing, signage etc.) prior to departure.

- 4.14 (2) (b) To improve clarity it is recommended to reword 14.14 (2) (b) into two parts.
- 4.14 (2) (f) How is the requirement of SWL of 200 kg per seat to be verified by either the owner/operator or an AMS or compliance officer?

Some portable seating options may also not be suitable for the harsh marine environment without proper maintenance.

4.15 Table 4 - Sleeping accommodation should apply for some AL12-36 vessels.

Accommodation

Information's about proposed changes for Accommodation related NSCV-section1 edition 2, my feedback is fallowing: - most of changers are access to promoting the standard of scape up to evacuation of vessels

The proposed changes for vessels accommodation are very orientate and detailed one, it is providing more access to existing design and developing safety access on various clause and tables. construction details of vessels accommodation and spaces to associated facilities and accessories. The consultation draft is provided more accuracies to vessels safe operation, and vessels must comply with the requirements of chapter 4.1 up to 4. 22, and accesses to the vessels accommodation to be facilitate with sleeping accommodation's according to the vessels operational area and hours of voyages which are defend on vessels are group of categorised by level on, A, B, C, D or E, according to duration of voyages durations such, 72 hours 36 hours and 12 hours. Also adding to that Accommodation's to be full filled with fallowing requirement's access under the given chart of table – table 3 to table 26, comply

with the number of people and crew on board according to commercial cargo, passenger and fisheries vessels under the various group and length of vessels.

About the detailed which are given in proposed changes are very productive. It provides better outcome more access to safety of life at sea, also healthy environment on board, and also access to computable spaces all type of activities, and more accredited to passenger's type transport vessels for, safety management, emergency contingency plan stablished to the vessels.

The new design considers given draft measurements and technical detailed such ventilation, kitchen spaces, sanitary facilities, areas and accommodation lightings, temperature controls, Barth for crew, deck area for passenger's, safety construction, stability and safe operation concerned, crew and passenger's health and safety concern, clear space access to emergency movement manage and easy access to promote the vessels design and seaworthy.

Chapter 5 – Escape and evacuation

Of the 22 submissions received, 13 addressed Chapter 5 – Escape and evacuation received 13 responses. This feedback is set out in the table below.

Table A4: Feedback relating to Chapter 5

Escape and evacuation

- 5.2.2.b Does this mean that an enclosed space requires primary and alternate escapes, while a non-enclosed space only requires a primary escape? If so, could be clarified.
- 5.6.1 Escapes on a vessel could also provide access directly to an embarkation station, this would be most common on small boats. Escape from the single enclosed cabin would not provide access to an evacuation path. Note the definition of evacuation path which 'starts at each point at which escape routes from different spaces merge'.
- 5.8.1 Assembly station is not defined in NSCV Part B despite Note 2 stating that it is. It is also not defined in the definitions of NSCV C1.
- 5.8.1 Suggest graphical illustrations of how this works in practice on typical DCV's. The standard is entirely written around escaping from a space, joining an evacuation path, pausing to assemble at an assembly station, and then moving to an embarkation station. This may be relevant on a cruise ship but is less applicable on DCV's. On the bulk of DCV's you would escape directly to the embarkation station and assemble there. On ferries it's likely that there is insufficient room at the embarkation station to assemble the relevant complement of people, therefore presumably they have assembled before they have even escaped from the space. But the code does not allow for this.
- 5.8.4 Does clear deck space exclude or include seating? Clear deck area as defined in 1.5 definitions does allow for seating in the context of minimum deck area per passenger. Use consistent terminology and clarify whether seating area is included or not. If it is not a clear area of 0.35 m2 per pax on a ferry is not viable.
- 5.16 Note at top 'Class 1 Vessels', I don't understand the applicability of this clause, if the whole of clause 5.16 is for Class 1 only, why are there references to Class 2 and 3?
- 5.16.4 Define low location lighting in definitions
- 5.16.4 I don't support trying to correct perceived shortcomings in C5B emergency lighting by adding requirements to C1. In the long term it is confusing and leads to errors if rules relating to one topic are spread across different standards. If the emergency lighting section of C5B is deemed insufficient, fix C5B.
- 5.16.7.b 2 hour visibility inconsistent with 90 minute requirement for photoluminescent marking from Table 26?
- 5.16.8 Requirement for Class 1 vessels carrying < 36 pax or < 12 berthed pax is missing, presumably it should be as per Class 2 and 3? If so, Clause B2 needs to be modified also.

Ridiculous proposal for small boat operation.

Escape and evacuation

Our vessels are subject to operational classes 2D and 2E. We do not carry passengers. Our vessels are single hull dinghy's less than 5.0m in length.

Escape lighting and signage is a ridiculous proposal for our type of operation. If the need to evacuate arises, the skipper will give the instruction to abandon ship, tell all crew to trigger their PFD's CO2 cannister and jump over the bloody side.

Vessels should be designed to allow for more than one evacuation route in the event of an emergency.

5.3 (4) - (Escape from spaces)

Comment:- Clarified to mean 'closed' ro-ro spaces.

5.4 (5) (iii) - (Escape from spaces)

Comment:- Remove point (iii) open decks.

Table 16 - (page 49) (Types of escapes from accommodation spaces)

Comment:- 0 to 4 Single flights rather than 2.2mtrs leave it at single tier.

Comment:- Anything that states 2.2mtrs high needs to be single tier.

Table 19 - (page 51) (Minimum criteria for low-capacity escapes)

Comment:- Requires a definition of an 'element'.

Table 19 - (page 51) (Minimum criteria for low-capacity escapes)

Comment:- Spelling mistake in row three, column 2, 700mm off, not 'of'.

Comment:- Where window base exceeds 700mm above the deck, a step to be provided.

5.7 (b) (iii) - (Alternative means of evacuation by analysis)

Comment:- Spelling mistake. change 'minutes' to minutes.

5.8 - (Assembly stations)

Comment:- Vessel carrying 36 or more passengers, 36 passenger limit needs to be reinstated or 45mtrs.

Table 24 - (Page 60) (Required dimensions of steps in stairways)

Comment:- NCC Vol 2 - Do not reference a domestic building reference, as not practical for vessels with minimal areas.

Comment:- What is this? 'Tread depth (min), 185'?

Comment:- Staircase standards relating to domestic building standard codes are not practical in the marine industry.

5.16 (1) - (Safety Information and escape marking) - (Class 1 vessels)

Comment:- Should only be applicable if there is a safety concern.

5.16 (5) (a) - (Safety Information and escape marking) - (Class 1 vessels)

Escape and evacuation

Comment: - Add reference to SOLAS.

5.16 - (Safety Information and escape marking) - (Class 1 vessels)

Comment:- Parts 4, 5 & 6 are irrelevant.

Table 26 - (Page 64) (Requirements for marking of escapes)

Comment:- Remove Table 26 due to not compliant with 5.16 (6).

5.2(1) so the escape can be smaller if people are wearing uninflated yokes?

Why are open decks not a viable means of escape- tighter definition required

5.6(1) huh?

Stairways and ladders should align more with the standard AS 1657, especially regarding stair railings and step / rung dimensions

5.4 (2) Would this be better worded as 'The access and escapes for each space MUST be either low-capacity or high capacity, as set out in Table 16 and Table 17.'

Table 19: I strongly recommend the sizing of horizontal escape hatches aligns with the ISO9094 standard.

5.8 (2) I don't think this would be achievable on a lot of small commuter ferries.

5.16 (2) Remove capitalisation on Signage.

Transdev Sydney Ferries are satisfied with the proposed changes and offer no further comment at this time.

For smaller vessels: 5.16.6 and Annex B - the requirement to fit photo luminescent escape signage on escape, assemblies, embarkation points, first aid etc. The reality of where these signs will go on a small cabin boat is difficult to imagine.

Perhaps only exit doors and hatches should require this.

For larger vessels: • 5.8.1 - the requirement for assembly stations with clear deck space 0.35 m2 per pax. The term clear deck space is not defined (as opposed to clear deck area), it is unclear whether areas of seating can be included, potentially large impacts for pax numbers on ferries etc. In general, the requirement to escape from a space, assemble at an assembly station, then move to an embarkation station in my view is not workable on most DCV's. The only space to assemble hundreds of people on a ferry is within the main pax areas. But the standard compels you to provide an escape from each space to an assembly station.

5.16.4 - Emergency lighting now required on vessels not captured by NSCV C5B. I don't disagree with this, but it's a messy way of fixing a perceived error in C5B.

5.11 Passage Ways

The requirements for aisles between seats at table 11 are in conflict with this section.

5.14 4(c) Stairways and ladders

Escape and evacuation

As far as possible the NSCV code should contain actual deemed to satisfy requirements not simply references to external standards.

External references as a deemed to satisfy solution at significant complication for most owner and operators and require the operator/designer to a. purchase a copy of a typically long and complex standard, interpret such standard and then apply to the specific circumstance.

This generally runs counter to the idea of making the standard easier to understand and easier to use. In fact, this sort of external reference is typically far beyond the capability of most stake holders

3) Rail heights for RIBS

Must have means in NSCV to align with the reductions allowed in ISO 6185.

There should be no substantial differences when applying these standards among other req's.

8) Rung ladders

Can see the height limit for rung ladders have been changed, which is a welcome move.

Might be considering the height difference between decks.

Would it be better to specify 'rung ladders not to be used when the deck height difference is more than 2.2 m or as applicable for acc/work spaces? instead of limiting a ladders length, since ladders could be designed little higher as well which might yield a better safety outcome.

Also where would be the height of a rung ladder with side rails/holds taken from and to where (from extreme rungs or decks)?

10) Spiral stairways

5.14 (4) - exception for bottom most rise could be provided (general - not specifically related to spiral).

What does 5.14 (5) mean - Table 16 limits the use of step ladders.

Does it mean that 'spiral stairways' are not permitted if they are more than 2.2 m high? OR if they cannot be used as high capacity being compared to a step ladder? OR dimensional req's are to be of a step ladder?

The above will be contradicted based on clause 5.14 (6) where the only limitation seems to be 2440 mm, however, can be of high capacity use.

Does the above limitation of 2440 mm seems reasonable otherwise to be specified based on number of persons/other aspects as well?

11) Assembly stations

There are varying opinions on 'assembly station' requirements.

Clause 5.8 (2) - what does it mean by 'primary station being inaccessible'?

Escape and evacuation

5.8 (3) could be hard to achieve on some vessels and can see many exemptions coming in - would this override any req's per NSCV C4?

What does 'clear deck' area refer to - being an assembly station is the full clear area and over-ride other clear deck area requirements?

Is seating included or excluded in clear deck areas?

Having an assembly station for all the number of persons on one deck where there might be 2 decks cause onerous req's? These might be critical on Class E vessels.

12) Guard rails

Does a maximum gap need to be specified for guard rails/courses around stairwells on each deck (5.12)?

Trust that helps in some way, was not able to go through all sections in detail.

- 5. Escape and evacuation
- 5.4 Can you please clarify if this relates to an enclosed space or any space e.g. open deck.
- 5.4 (1) (d) Does this mean the remaining requirements of this clause 5.4. (Consider rephrasing)
- 5.4 (5) (b) (iii) What if there are stairways between open decks, are they considered means of escape?
- Table 19 Wording in 'Horizontal escape hatch' could be improved (Maximum height 1.2 m before ladder is required). Under passenger and crew spaces columns.
- Table 20 Could a corridor or passageway be an evacuation path? In such case when it leads directly to an assembly station does it have to be 900 mm (Table 20) or can it be of minimum clear width 650mm (Table 19). Please clarify.
- 5.8 (3) Does this section also apply to the alternative assembly station?

Delete second 'and' in line 3.

- Table 24 Tread depth is not shown in figure 8. Is this measurement only applicable for tapered treads?
- 5.15 (6) Include degrees after 2.
- 5.16 (5) (iv) Amend 'procedure' with 'produce'
- Table 26 Please clarify. Class 3 doesn't carry passengers, so markings are not required. Is this only for any class 3 vessel with more than 12 berthed persons?
- 5.16 (8) (b) Please clarify. Class 3 don't carry passengers, so assume no markings are required.

Escapes and Evacuation is part of the ships safety management system included emergency contingency plan. It is applying for all the vessels, when emergency or hazardous situation, quick access to attend to emergency actions and assembly point, assuming that all the

Escape and evacuation

persons are wearing a life jacket of the type required to be provided on the vessels, to designated duties for respond and muster point and pathway to evacuation.

Understood designed draft has escapes are grouping in to categories as general scapes, Escape from space, included with design and conditions on required construction measures by individual section on conditions and responsibilities under the measurement's on, primary scape and alternative scape are detailed with. Scapes means spaces accesses to exit from the various places such as, crew cabins, special personal, passenger spaces, E/R from ladders, vessels with ro- ro space, Galley, doorways, staircase, enclosed space, emergency windows, sliding doors, according to requiring of chapters under the tables and clauses are easy and cleaner access to builders and designers. Also type of scape escape within the passenger vessels according to the vessel's construction class such class 1 class2 class3, number of people scape capacities and conditions for constructive are accountable for vessels stability manage until up to escape access to evacuations. Also design concern given measurements for the corridors or passage ways, doorways, stairways easy access to clause and annex to detailed under measurements for construction standards class of vessels. Also provided information's regulating all scapes are much close to IMO standard, best practises to be clearly mark and therefor escape lighting must be provided for higher risk vessels as required on clauses 5. 16 and table 26. Indeed that Scape about in legislating draft given information's are promote existing vessels designs and vessels stabilities while emergency movement consider escaping from vessels

concluded fallowing information's combined with constructions rules of Accommodations combination section.

Vessels Safety construction Information's in consultation draft are provide more accuracy of vessels life at sea.

5.16 Safety information and escape marking Class 1 vessels are more accuracy provides

The Signage and Lighting required by 5.16

This is very important section get the more close to IMO stranded.

According to that vessels for signage must be a minimum of A7 (7 cm x 10 cm). This requirement is designed to ensure that the number of persons in a space or on a deck does not compromise the safety of a vessel and the persons on it. For example, an upper open passenger deck could impact the safety of the vessel if it was overloaded with people, and a small compartment with only a low-capacity escape cannot safely hold more persons than can be evacuated quickly.

Of the 22 submissions received, 14 addressed Chapter 6 – Personal Safety. This feedback is set out in the table below.

Table A5: Feedback relating to Chapter 6

Chapter 6 - Personal safety

Thank you for the advice on Gangway Regulations. My company has been the leading supplier of gangways in Australia since 2005. Gangways are constructed meeting the various standards available. (At times the correct standard is hard to recognise) With the ever increasing need for disabled access many changes will need to be considered. Our customers range from Tourist vessels in the Far North, Commuter ferries on Sydney Harbour in the East to Iron Ore loaders at Karratha, Add to that many of the Passenger liners around the world also utilise our Gangway systems. I would like to take this opportunity to make myself available for consultation on this subject.

6.4 – Suggest some clarity be provided around foredecks on small boats. The only reason typically to go forward is to anchor, which is rare on most vessels. Many standard designs do not have bow rails or have very limited bow rails e.g. Naiad. Full perimeter rails are not preferred and are subject to damage. Under Table 30, Class C boats require as a minimum 600 mm compliant perimeter rails, which is out of step with common industry practice. A realistic safe way to access a foredeck on a Class C boat is to wear a life jacket, a MOB alert or personal locating beacon, and have adequate hand holds. Being clipped into a harness would be extremely dangerous if you slipped over the side and were left dangling in a seaway.

6.7 – Toe rail not commonly installed on workboat special working decks. E.g. foredecks, open aft decks or open transoms etc. They would be a danger.

Once again, AMSA fails to consider the nuances of operations between differing industry participants. Casting all industry participants in to a few categories risks implementing changes that will actually increase risk under some circumstances.

DEFIBS should be mandatory

6.4 (5) so basically all Class 1 vessels

Height of guardrails for vessels < 12 m should be revised. Small vessels currently require railings to be at least 800 mm above the deck. This actually makes it awkward and dangerous when mooring alongside pontoons at boat ramps as it now contributes to a tripping hazard. It also interferes with fishing especially when a forward casting deck is used.

The removal of the requirement of having a minimum height of guardrails would be consistent with Leisure Craft, EX40 craft and EX02 craft.

5.4 (2) Would this be better worded as 'The access and escapes for each space MUST be either low-capacity or high capacity, as set out in Table 16 and Table 17.'

Table 19: I strongly recommend the sizing of horizontal escape hatches aligns with the ISO9094 standard.

5.8 (2) I don't think this would be achievable on a lot of small commuter ferries.

5.16 (2) Remove capitalisation on Signage.

Transdev Sydney Ferries are satisfied with the proposed changes and offer no further comment at this time.

.12 Bulwarks and Guardrails - The reduction in heights of bulwarks and guardrails for special purpose or special working decks are under most circumstances un-workable compelling operators to apply for special exemptions which under the current regulatory exemption posture are typically refused.

Many workboat operations such as mooring and anchor maintenance, lifting operations, salvage diving operations and the like can only be practically conducted with complete omission of any sorts of guardrails on a portion of the vessel.

Table 30 measure 4 effectively does not permit this, leaving a significant portion of the industry un-catered for by the C1 standard. The numerous measures required to be applied under table 30 simply to reduce guardrail heights rather than eliminate them are far too onerous and not commensurate with the risk level posed simply by having a guardrail in accordance with general purpose decks.

Also the application of these guardrail standards to small vessels is completely impractical, the USL code did not specify minimum heights for consistent vessels under 10m, allowing the authority to consider minimum requirements on a case by case basis. The application of minimum heights to small vessels has simply increased red tape compelling operators to apply for costly special exemptions which are typically rejected when measured against the overly onerous special working or special purposed deck requirements.

The standard is silent on removable sections of handrails which in practice does occur, however is arguably non-compliant under C1 - 6.12.2.

There is also the paradox created by houseboats, which under F2 only require 850mm guardrail heights, in applying for a class 1 or 2 classification are required to raise their guardrails to 1000m (if their measured length exceeds 16m). So such a vessel must raise guardrail heights in order to carry experienced crew members rather than only passengers, which is opposite to the logic presented under the definition of special working decks.

Guardrail requirements under C1 should be completely revised to provide for a far wider range of circumstances and be commensurate with various risk settings and should be in harmony with other parts or the NSCV e.g. F2 chapter 12

For smaller vessels: Table 30 Measure 4, the requirement for a compliant set of guard rails around special working decks on Class C boats, or the requirement to wear a harness on Class D and E boats e.g. foredecks for anchoring purposes.

Compliant rails are not common on many standard designs on the foredeck. Suggest a life jacket and man overboard alert, or personal locating beacon in lieu?

6.12.

It is not made clear if the intention is for all vessels to permanently carry such arrangements that are suitable for every possible scenario.

For smaller vessels the carriage of a suitable gangway or similar may not be possible.

In areas of high tidal movement the provision of such facilities may not be practical – unless provided by the wharf or jetty.

This whole section needs significant clarifications. And real consideration of the inherent practicalities for smaller vessels.

Norman R. Wright & Sons (NRW) is without doubt Australia oldest and most experienced designer-builder of pilot vessels, with more than a century of experience in the industry and a portfolio of over 50 pilot vessels. Throughout these years, our design knowledge has been enriched by working closely with operators to develop a valuable understanding of functional and safety requirements from the feedback of crew and pilots.

6.15(4)(d)(iv)

All NRW pilot vessels built over the past 35 years have been fit with continuous safety rail systems. Over this time, there have been no known incidents of any rail/car or installations failing.

The safety rails are used by the crew and pilot to transit between the deckhouse and boarding zone prior to or following the transfer operation. During this time, vessel speed should be reduced for safety alongside the ship so that motions are not excessive while persons are moving around external areas. Furthermore, motions will almost always be attenuated by conducting operations on the lee side of the ship (standard industry practice). This decrease in vessel motions will significantly reduce the likelihood of a person tripping/falling, and also reduce the possibility of large loads acting on the safety rail in the case that a person does fall. Also, in the event of a person falling, the safety tether, if compliant with the proposed rule 6.15(4)(d)(ii), will be so short such that a person will not gain significant momentum to be taken by the safety rail before they are supported by the deck. From our design experience and knowledge of pilot transfer operations, we believe that the proposed rail load ratings are excessive and not a realistic representation of the true loads that pilot vessel safety rail systems might experience.

The other issue with imposing high fall arrest loads is that there are very few (if any) products that are available and suitable to this application. For example, Ronstan make a product that is certified to meet 6kN loads, however, this product is only certified for rail bends of 2.5m. For a 14-15m pilot boat (very common size) the vessel will not have sufficient beam to accommodate a continuous safety rail (as required) and 750mm wide side decks (as required). We would recommend that AMSA research the availability of compliant hardware before approving this rule.

This increase in load rating requires foundation structures to be locally reinforced and for rails, posts and hardware to be added or heavier duty resulting in what we believe to be an unnecessary increase in costs to operators. The most significant cost increase is likely to be the certified rail, which may have to be customised for smaller craft.

5) Sailing vessel berths

Consideration for sleeping Berths on certain smaller sailing vessels, they would have limits on how wide they could be due to hull shape - maintaining clear pathways as well in cabins.

9) Glass rails 6.4 - 6(c)

Specify which section and what aspects of LR rules are to be applied, being a vague statement. Clauses in LR rules does not need to be specified as could change, however approach needs to be clear (as Notes).

6.3 Lighting - Note: delete word 'has' and include 'Safe Work Australia' after the Code of practice title.

Table 30 - Asterisk * This may be confusing as it only applies to some types of unpowered barges (e.g. Exemption 41 category 1 barges are exempt from all of C1 requirements)

Table 30 - Measure 8 - Are person overboard alert devices complying with AS/NZS 4869 readily available on the market? Could equivalent international standards be considered?

6.12 (2) (i) Note - Update reference to 7.13 (3), probably typo.

6.13 (2) - How can an AMS or compliance officer verify compliance of a custom built gangway? There should be some basic requirements for a gangway (strength, height, min height between rails etc.) or the option of a standards-built gangway.

6.13 (2) (b) and (c) - Need to be clarified. Is (b) for vessels operating in sheltered waters or not? Is the text 'Requirements, tests;' part of the standards title?

6.15 (4) (d) (ii) - Incorrect reference to clause 7.9

Annex A – Methodology for determining the minimum required aggregate width of doors, stairways, corridors and walkways serving a space

Of the 22 submissions received, 2 addressed Annex A. This feedback is set out in the table below.

Table A6: Feedback relating to Annex A

Annex A - Methodology for determining the minimum required aggregate width of doors, stairways, corridors and walkways serving a space

Annex A - (page 81 to 85)

Comment:- Completely review and simplify.

Table A1 - (page 82) Calculated flow capacity of single accessway)

Comment:- Not practical and confuses something very simple.

Table A2 - (page 84) (Total nominal width of equally sized high-capacity door escapes serving a single space assuming no low-capacity escapes)

Comment: Does not make sense and contradicts Table A1 (page 82)

Annex A

Annex A - Methodology for determining the minimum required aggregate width of doors, stairways, corridors and walkways serving a space

A3 (b) -Does this clause come into contradiction with the requirement in clause 5.7 (b) (iii) and note thereto, for vessels carrying more than 36 passengers?

Annex B – Marking and signage

Of the 22 submissions received, 3 addressed Annex B received 3 responses. This feedback is set out in the table below.

Table A7: Feedback relating to Annex B

Annex B - Marking and signage

Note 2: That your vessel situation maybe not be represented by the limited examples above and other similar derivatives can be used. The table B1 size requirements must be maintained.

Suggest removing the first word 'that'.

Annex B

B2 - The application is class 2 vessels with up to 12 passengers, however the reference to all vessels is oversimplified. Annex B should not be mandatory for vessels such as open vessels, ribs without cabins or escape paths etc. Propose to use wording such as 'vessels with at least an enclosed space with up to 12 passengers.'

Also provide suggested location where small vessels are to display proposed signs.

B3 (b) - Muster station: definition is not available in NSCV, best to use assembly station

Survival craft: include Note Refer to Part C, Section 7A for the definition of survival craft.

Table B1 note - Please clarify if this note requires LLL illumination in these vessels too, or is the reference to 5.16 (3)?

ANNEX B MARKING AND SIGNAGE is easy access to vessel upgrade to new draft measures.

This Annex specifies the deemed-to-satisfy-solution for marking and signage required to articulate escape and evacuation paths on smaller less complex lower risk vessels.

- B2 Application This Annex applies to the marking and signage of escapes and evacuation paths on: (a) All vessels with up to 12 passengers.
- B3 Objective The objective of this Annex is to set out requirements for the adequate marking and signage of escape and evacuation:
- (a) the marking and signage must be readily understood by the majority of passengers and crew within 60 seconds.
- (b) aid in the supply of rapid evacuation and escape of all persons on a vessel to a muster station or survival craft by supplying adequate graphical instructions and identifying paths and equipment.

General feedback

Of the 22 submissions received, 10 offered General Feedback. This feedback is set out in the table below.

Table A8: General feedback on the proposed changes to NSCV C1

General feedback

More unfathomable rule changes from AMSA. I am not reading an 87 page document to find out if these changes are applicable to our type and area of operations.

Why can't AMSA appropriately identify relevant industry participants and send these requests for feedback to relevant parties, rather than wasting insane amounts of the entire industries time trying to work out if a new rule applies to them?

Whomever wrote and approved the paragraphs on the below AMSA webpage needs a lesson in basic proof reading/editing, written English and grammar.

How does the industry retain any confidence in a new build vessel, with AMSA constantly changing regulatory legislation?

AMSA appears to be stacked with personnel who lack industry operational experience, trying to define categories of operation they simply don't understand.

All Passenger Service Vessel's regardless of size should have toilet facilities. This should cater for all passengers, people with additional needs or disabilities and also staff.

Often there are no facilities at wharves and passengers are waiting to board to use the facilities. Crew need access to facilities as required by WHS Legislation in providing adequate facilities to staff in their workspace and not having adequate facilities onboard can lead to long term health problems. Often vessels operate for 12 hours a day and not having facilities available would breach OHS Legislation.

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With regards to your escape lighting, for commercial fishing vessels we invented the attached product to suit such issues as capsize and compartment flooding. The product is being used in Hong Kong due to themselves having a vessel rollover and tragically people being trapped.

With regards to the emergency lighting for commercial fisherman we would expect such capabilities as ours would be a standard for an emergency light. Activation with roll over and water activation with robust nature to handle falling objects. We can supply a unit for you test and see the capabilities.

This would have been much better if you'd got an Industry TAP involved- bits missing and some really odd clauses, and unnecessary international shipping derived requirements that don't scale at all well for DCV. Still too legalistic and as such sadly unclear in places, and

General feedback

the potential clashes with other parts of the NSCV and nannyish requirements in here are obvious. Suggest you re-work this and don't rush its introduction.

- 1. Readability: I believe the format is difficult to follow. As I have provided in the past it is difficult to follow legislation when it references other sections, tables, Acts, Standards that are not found within the publication. You end up with a lot of supporting documents open to try and determine the actual requirements and leave a lot open to interpretation of legislation which is not AMSA's to control (i.e. DDA etc). It makes the document difficult to follow and leaves the reader unable to get a quick and easy answer.
- 2. Cost implications: I believe it would cost more to construct a vessel to these standards and for vessels over 24 metres consideration would need to be given to the aesthetic design due to the forward facing windows, not always a practical option on high speed vessels where space in these areas may be limited.
- 3. Safety Benefits: Yes, there are some areas where there will be increased safety standards and some where there will be increased cost for not a lot of additional benefit.
- 4. Risks: There may be some areas for AMSA to consider with regard to transitional vessels as the grandfathered fleet eventually trigger transitional requirements due to upgrades.
- 5. Gaps: Purely comments from my own experience however Section 3.5.14 (table) would it be considered in areas where visibility may be restricted or limited by design, could CCTV systems be used as an alternative for improving fields of vision? And one more in Section 3.6 (8) vessels with hydatic controls (albeit an old system not in use much these days) those types of systems are unable to disengage the control system when not in use. Perhaps the wording could include secured/covered so as not to be able to be accessed by general public or other crew, or other such wording? This would be particularly beneficial if this legislation covers off for transitional vessels.
- 6. Grammatical: Page 15 J (E) On Board vs ONBOARD there are multiple references which are not consistent.

Transdev Sydney Ferries recognise the opportunity that has been taken for continual change and improvement to the NSCV standards for future-build vessels.

General Feedback is that as usual there is too much consideration given to larger vessels, and application of various international codes that are designed for much larger vessels and ships:

e.g. MLC, Solas, Noise and Vibration, etc.

The vast majority of NSCV vessel are in smaller sizes - below 24m and below 100GT. more practical consideration should be made for these smaller vessels and the focus should be removed from the larger ships.

As the peak body for the western rock lobster industry in Western Australia, WRL thanks you for the opportunity to provide feedback in relation to AMSA's consultation on wheelhouse visibility, escape, accommodation, and personal safety. WRL wishes to convey our full support for the WA Fishing Industry Council's (WAFIC) submission on this matter

General feedback

and agree with the points raised in their whole-of-industry submission. Thank you for giving our organisation an opportunity to provide a submission on this matter.

2) Fore deck on smaller vessels

Railings around the foredeck of smaller charter or fishing boats have been a point of discussion with varying opinions among the surveyor community.

They would be accessible to Crew only; generally many vessels can be seen as having some basic railing only (+with grab rails around top of the deckhouses) and anchors or winches could be accessed without actually stepping on the deck through fwd. hatches.

Do all decks irrespectively need to meet the rail height req's as either 'general purpose', 'special purpose or working' decks or are they flexible in situations like these?

If a Crew is required to climb on the roof of a cabin to access any equipment? does the vessel need to have railing around the roof of the deckhouse as well?

They might need to step over the G'wale in most cases, so they require a ladder too being > 750 mm height difference?

A little more clarity on where to draw the line would be helpful.

B4 General requirements

- 1) Signs and markings must be the minimum following sizes set out in Table B1 and pictorially the same or equivalent to figure B1.
- 2) Alternatively, compliance with the ISO 24409 series of standards, IMO Resolution A.1116(30) or AS1319, Safety Signs for the Occupational Environment is a deemed to satisfy solution.
- 3) Must be maintained, serviced, and replaced in accordance with manufacturers recommendations

Conclusion

The proposed changers for NSCV section C1 included adopting part C1+edition 2 provides more safe and accuracies access to vessels structural maintenance, stabilities and sea worthy of vessels comply with IMO standard.

Submissions received separately to the online submission form and questions

AMSA received 1 submission separately from the online submission form. The submission has been summarised in Table A8.

Table A9: Additional feedback

Additional feedback themes received not covered by the consultation questions

I have had a quick look at the draft consultation documents but need to highlight a concern.

The document refers to proposed changes and basically provides an issues register to move forward with but there is no detail at all around the recommendations of the TAC? For example, 'Toilet and ship sanitation facilities – voyage time and requirements changes'. – What are those proposed requirements and changes? The document is quite vague.

Can we get some clarification please?

<Email response sent to on 17 February 2022>

Thank you for your feedback. The consultation paper was designed to work with the draft proposed standard, of which AMSA has prepared two versions. A clean copy and a copy with all policy changes highlighted yellow (now attached).

These documents highlighting the policy changes in the draft NSCV Part C1 will also be available on the consultation page.

Using the example provided in the NSC email:

a minor relaxation of when toilet and ship sanitation facilities must be fitted.

The proposed key changes table specifies that Chapter 1 and 4 have been amended with regards to toilets and ship sanitation requirements. Readers interested in the specific changes are encouraged to review the proposed standard (Changes highlighted yellow version)

This change is based on industry feedback. AMSA also seeks to absorb exemptions where possible, as this reduces the administration burden on industry and helps create a more level playing field. The proposed minor relaxation of when toilet and ship sanitation facilities must be fitted to a new vessel, received strong industry support during preconsultation with the technical advisory panel.

For more detail, please see the NSCV C1 External draft February (Changes highlighted yellow) clause 1.5 Definitions - *toilet (marine)* and Clause 4.2 - Sanitary facilities and Table 12.

I hope this clarifies your question. We will ensure the linkages of key changes to the NSCV C1 External draft February (Changes highlighted yellow) are clear on the AMSA consultation webpage.

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