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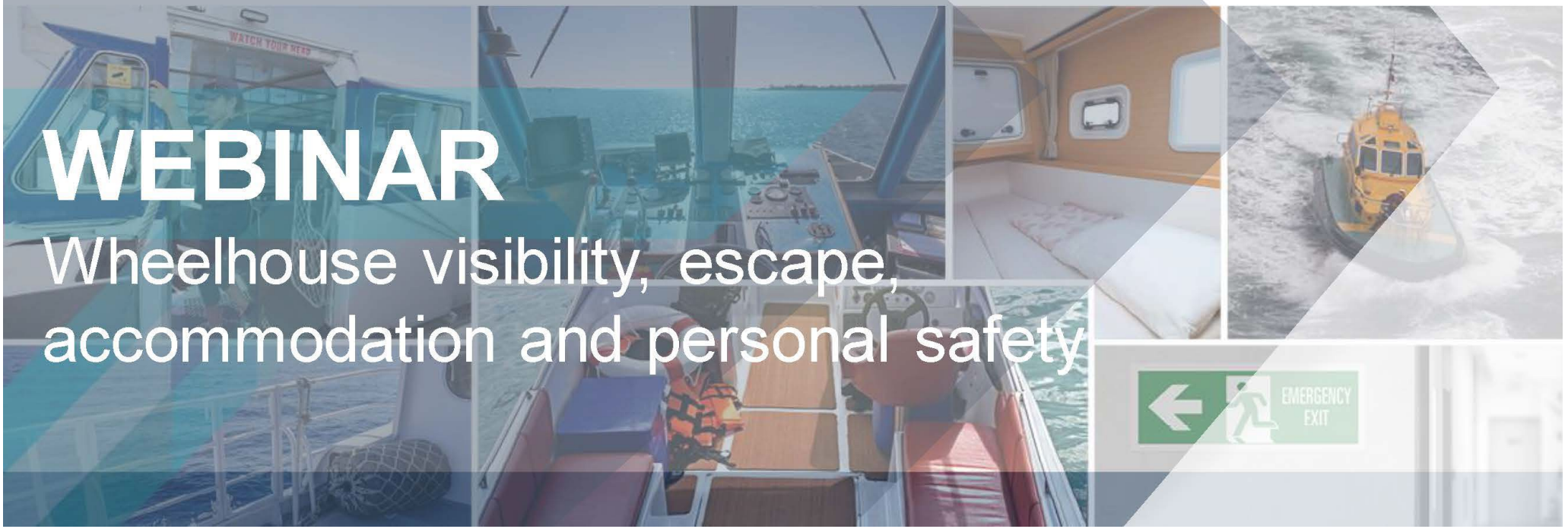
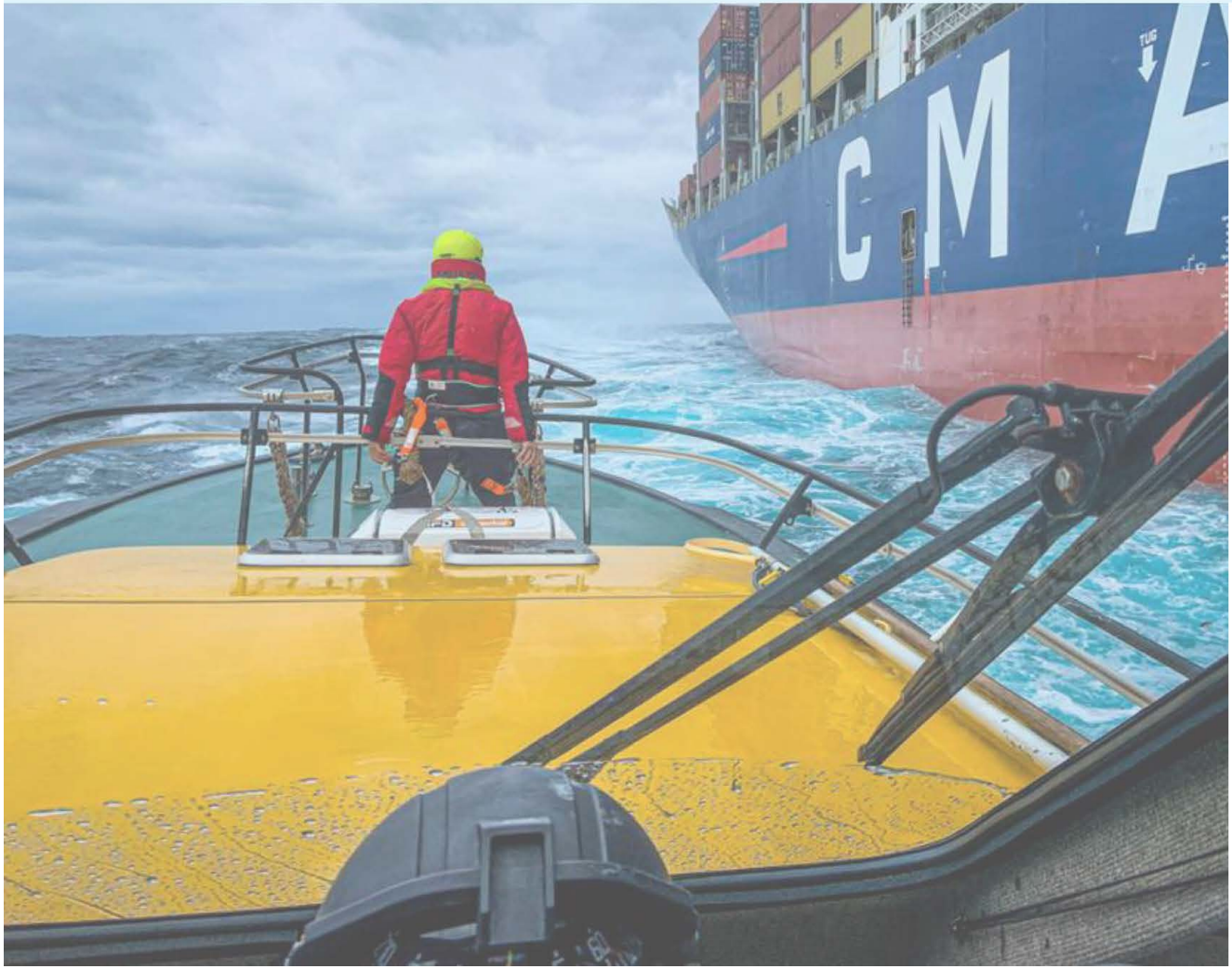


WEBINAR

Wheelhouse visibility, escape, accommodation and personal safety



Welcome and housekeeping

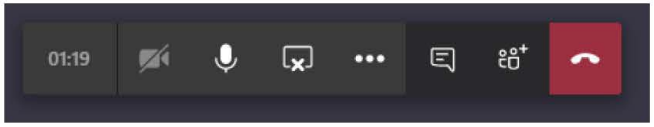
Presenter
Craig Elliott
Senior Advisor, Vessel Standards

About the webinar

Questions will be moderated as this is a live public event

30 second delay in transmission

Click here to ask a live question



- Stakeholder feedback that the standard is overly complex and difficult to understand and apply
- Reflect changes in technology
- Align with current national and international standards
- Seek best practice
- Address safety risks and recent serious incident trends.

? WHY

HISTORY

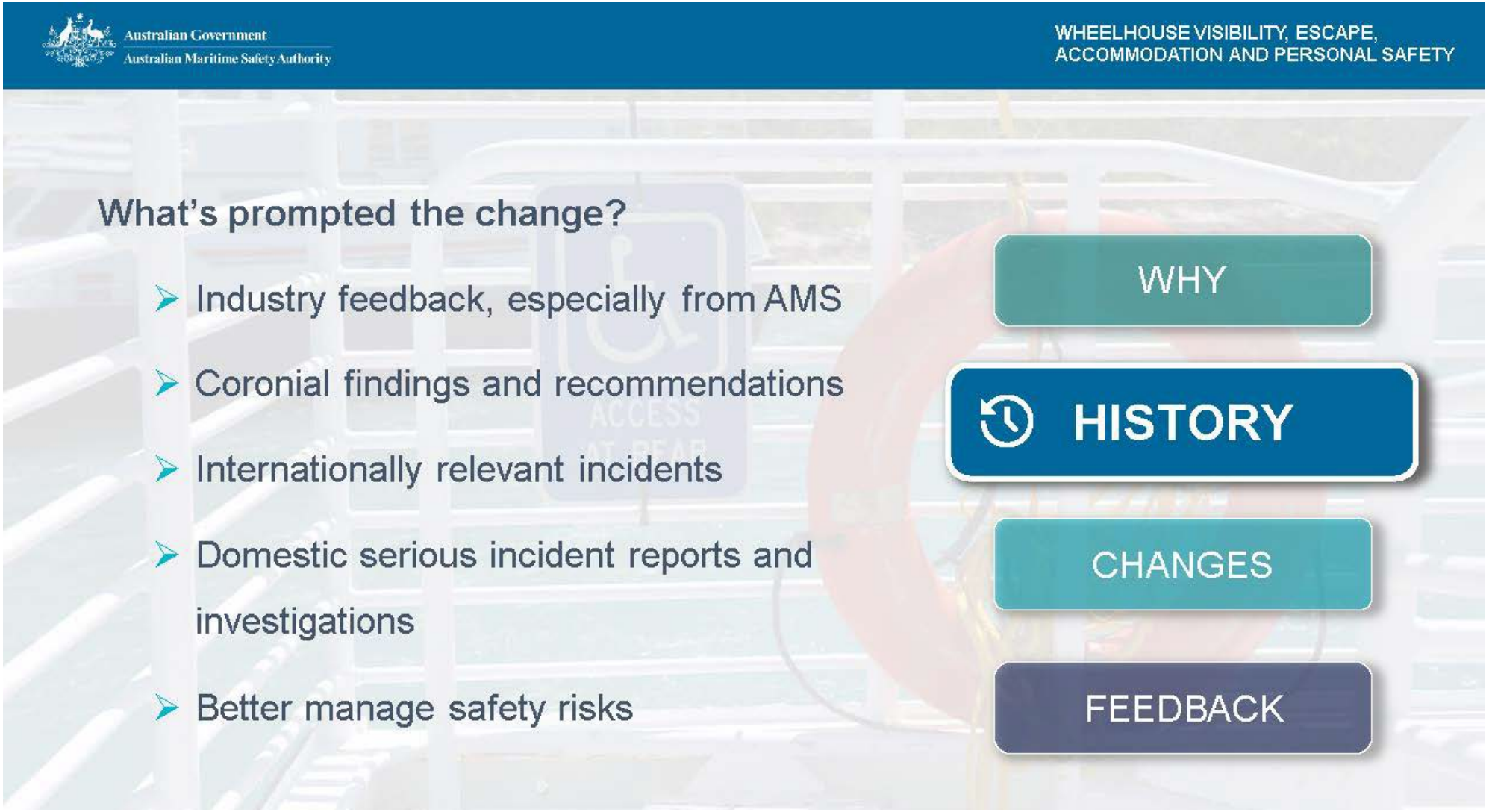
CHANGES

FEEDBACK

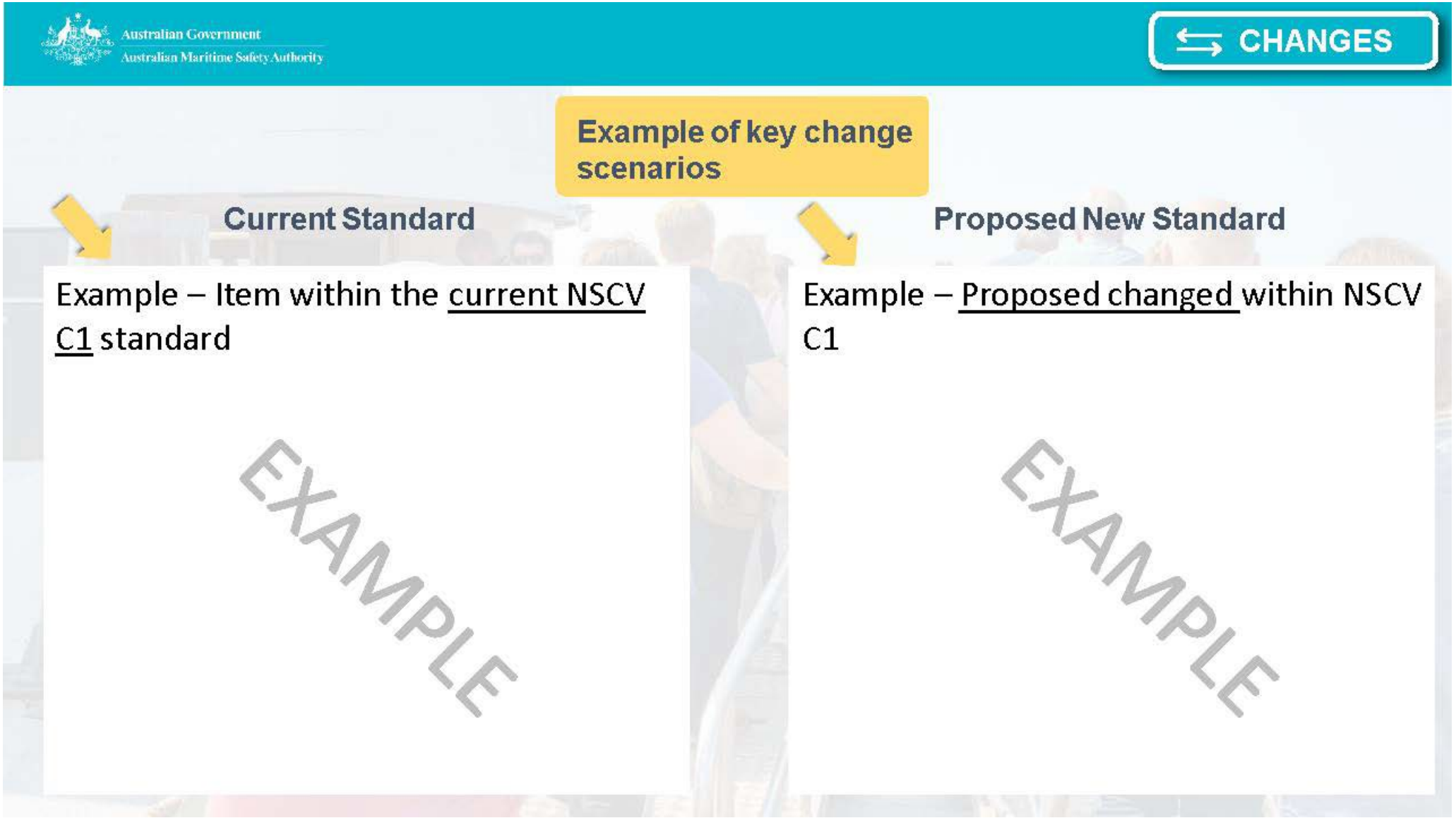
Why are we proposing changes?

We had over a dozen issues raised with us around issues with the standard by industry. Common themes were the standard needs to be clarified and become less complex and easier to apply. While changes or improvements in technology, such as low location lighting and improving escape marking, are not new technology within international shipping, its wide-scale use within the domestic commercial vessel (DCV) sector is relatively new. A few examples of how we are improving alignment with national and international standards include:

- Escape safety signs — by allowing flexible options for compliance with the ISO 24409 series of standards, IMO Resolution A.1116(30) or AS1319, Safety Signs for the Occupational Environment as a deemed to satisfy solution.
- Table 24 — Dimensions of steps in a stairway, depending on the capacity aligned with the National construction Code volume 2 or AS 1657- 2018
- The *Disability Discrimination Act 1992* (the Act**)** seeks to eliminate discrimination against people with disability. The Transport Standards explain the obligations of transport operators and providers under the Act. The *Disability Standards for Accessible Public Transport 2002* (Transport Standards) were developed to make public transport accessible, this along with AS 1428.1:2021 Design for access and mobility, Part 1: General requirements for access are now referenced to make it easier to apply understand and apply the obligations of the *Disability Discrimination Act 1992* (the Act).
- Seek best practice — Harnesses, safely lines, clipping points and jack-stays section has been updated for vessels ≤24m, to include ISO 12401:2209 Small craft - Deck safety harness and safety line (harnesses can be purchased to this standard from a retailer).
- Pilot vessel uninterrupted, continuous safety rail system; (i) which a lanyard or webbing strap capable of withstanding a load of 6 kN, or complying with AS 2227 or ISO 12401.
- Address safety risks — Coronial recommendation about improving emergency exit signage and escape strip lighting. Guardrail interaction with children pax seating without the reduction of the performance of guardrails. Incident data identifies RIB's are being overrepresented to person overboard. All these items have proposed changes. One example is figure 5 of the proposed C1 standard, which illustrates a collared vessel seating and points of attachment have been added to assist in clarifying how to apply the current standard.



- Feedback from Accredited Marine Surveyors and industry
- Coronial findings and recommendations (some minor changes to escape, pop out windows, sliding doors and low location lighting etc)
- Internationally relevant incidents, we scan for international incidents and review the relevance to Australia domestic commercial vessel fleet
- Domestic serious incident reports and investigations, we look at incident data, causes and marine inspector investigations of serious incidents
- We look at and review if we can improve how we manage safety risks, lessons we may have learned etc.



On the coming slides, the current standard or requirements will generally be on the left and the proposed new standard and requirements will be on the right. If that is not the case a heading of just 'Proposed new standard' will indicate that we are only looking at just the proposed changes.

Modernise the format and make the standard easier to read and apply

Current Standard

5.8.3 Type, number and size of escapes serving a space

5.8.3.1 Types of escapes to be appropriate

5.8.3.1.1 Suitability of escapes

The design of an escape must take into account:

(a) the number of persons who may need to use it; and

(b) whether it is to be used by passengers or by crew.

5.8.3.1.2 Requirements for escapes

The escapes for each space must comply with **Table 17** or **Table 18.**

5.8.3.2 Unsuitable means of escape

The following are not means of escape:

(a) a lift;

(b) unless it has a viable evacuation path to the survival craft embarkation deck or an assembly area — the following spaces:

(i) an accessway;

(ii) a balcony.

Proposed New Standard

5.4 Design of escapes serving a space

(1) The design of an escape must:

(a) take into account the number of persons who may need to use it; and

(b) take into account whether it is to be used by passengers or by crew;

(c) for escapes in the form or doors or windows – the doors or windows must be capable of being opened from either side; and

(d) comply with the requirements of this clause 5.4.

NOTE The number of persons who may need to use the escape must take into account the number of persons who may need to use the evacuation path that the escape forms part of.

(2) The access and escapes for each space are either low-capacity or high-capacity, as set out in Table 16 and Table 17.

(3) A high-capacity escape must comply with Table 18.

(4) A low-capacity escape must comply with Table 19.

(5) The following are not means of escape:

(a) a lift; and

(b) unless it has a viable evacuation path to the survival craft embarkation deck or an assembly area - the following spaces:

(i) an accessway;

(ii) a balcony; and

(iii) open decks.

In this example the old standard had five title headings, whereas the proposed standard has just one, making is easier to search and navigate. The font has been amended to make the standard easier to read. The proposed changes to the format have been developed using the principles of usability engineering and the reading score has been subsequently reduced.

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CHANGES

Clarification around the definition of special working decks and working decks

Proposed New Standard

special purpose deck means an open deck:

(a) that can be accessed by passengers; and

(b) that is used for the special purpose of the vessel; and

(c) for which full height bulwarks would significantly interfere with the special purpose or cause safety risks from the special purpose.

EXAMPLE of vessels that may have a special purpose deck:

- A boarding platform for snorkelling and diving operations
- Foredeck on a sailing vessel

EXAMPLE of a vessel that does not have a deck that meets the definition of a special purpose deck:

- Whale and dolphin watching ecotourism vessels.

special working deck means an open deck:

(a) for which full height bulwarks or guardrails would significantly interfere with the special purpose of the vessel or cause safety risks arising from the special purpose; and

(b) that is only accessed by crew or special personnel.

EXAMPLE of vessels that may have a special working deck:

- Commercial net fishing vessels
- Tugs and vessels engaged in towing opertions

We have proposed a very minor change to the definition of ‘special working deck’ and no change to ‘special purpose deck’. We have however, tried to provide examples of each type of deck.

Minor changes to the threshold voyage times and requirements to fit a toilet

Proposed New Standard

Table 12 — Requirements for fitting of toilets and wash basins on vessels

Vessel use category	Number of passengers	Threshold passage time before toilet facilities and washbasins required
Class 1	≥201	15 minutes.
	37 to 200	15 minutes. However, for vessels not considered public transport, toilets and washbasins are not required if the vessel is engaged on voyages of less than 30 minutes duration where the vessel operates between dedicated ferry terminals, wharves or a parent vessel with adequate public sanitary facilities provided.
	13 to 36	30 minutes. However, for vessels not considered public transport, toilets and washbasins are not required if the vessel is engaged on voyages of less than 45 minutes duration where the vessel operates between dedicated ferry terminals or wharves or a parent vessel with adequate public sanitary facilities provided.
Class 2	1 to 12	2 hours

Minor changes to the threshold time before a toilet and wash basin is required for vessels not considered public transport. Examples where this might apply could include a small water taxi, a small private charter boat, or a resort vessel conducting passenger transfers on short voyages etc. Vessels wanting to use the proposed changes must ensure adequate public toilets are provided near the embarkation and disembarkation points.

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CHANGES

Simplifying the operating station requirements

Current Standard

Table 2 — Field of vision from the operating compartment

Item	Criteria
View forward from the operating position	
2.11.1	The view from the operating position, of the sea surface forward of the bow, must be clear and unobstructed for at least the lesser of 500 m or a distance that is twice the vessel's measured length. The view must be clear for at least 10° on either side of the bow under all conditions of draft, trim and deck cargo.
2.11.2	The clear sectors between blind sectors must be at least 5°. However, in the view mentioned in item 2.11.1, each individual blind sector must not exceed 5°.
2.11.3	Framing between operating compartment windows must not be installed immediately forward of any operating position.

Table 3 — Alternative criteria for field of vision from the operating compartment on vessels less than 45 m measured length

Item	Criteria
View forward from operating position	
2.12.5.1	A clear sector of visibility of at least 30° must be provided directly in front of the operating position that extends throughout the vertical range of visibility mentioned in item 2.12.5.2 and extends horizontally from straight ahead at least 15° to the left and at least 15° to the right of the eye positions (both low and high).
2.12.5.2	The vertical range of visibility in the forward clear 30° sector of visibility must extend: (a) from a horizontal line from the high eye position at the operating position; to (b) a line between a point on the surface of the water, a distance D_{ve} ahead of the vessel and measured from the bow, through the highest point of lower obstructed visibility within the forward clear 30° sector of visibility to the low eye position.

For paragraph (b), D_{FS} is:

Measured length (L_M) of the vessel (m)	Distance D_{FS} measured from the fore part of the vessel to the sea surface (m)		
	Powered vessels that do not set sail	Vessels that set sail, when under power alone	
		≥ 12 knots	< 12 knots
< 12.5	4 x L_M	4 x L_M	8 x L_M
12.5 to < 25	50 m	50 m	100 m
25 to < 45	2 x L_M	2 x L_M	100 m

2.12.5.3 Fixed obstructions to vision from the operating position within the forward 30° sector of visibility must be limited to essential hardware, eg clears, deck stanchions, navigation lights and windshield wipers.

2.12.5.4 Obstructions to visibility within the forward 30° sector must be arranged to avoid significant enlargement by overlapping when viewed at positions within the range of high to low eye positions.

2.12.5.5 Outside the clear sector of visibility from the operating position throughout the horizontal arc measured from 90° to port and 112.5° to starboard, obstructions must be kept to a minimum such that normal movements of the operator's head

Figure 1 — Field of vision from the operating station (clause 2.11)

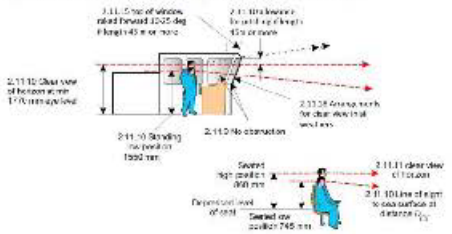
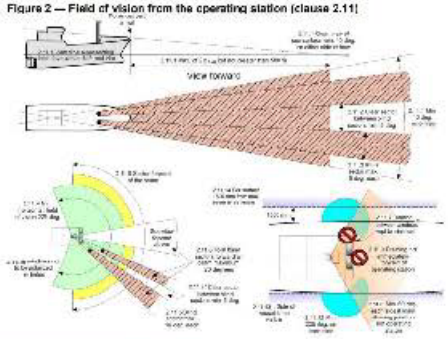


Figure 2 — Field of vision from the operating station (clause 2.11)

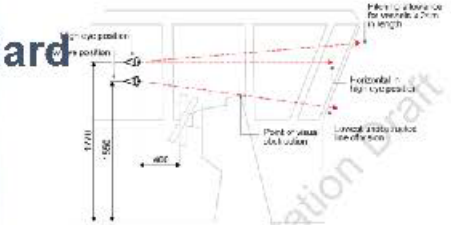


Proposed New Standard

Table 2 — Field of vision from the primary operating on vessels

Item	Criteria <24m Vessels	Criteria ≥24m Vessels
View forward from operating position		
3.4.1	The view of the sea surface from the operating position must not be obscured for a distance of more than: a) L_M ≤12.5 m four times the vessel's measured length b) L_M >12.5 m to ≤25 m, 50 m; c) L_M >25 m, twice the vessel's measured length The view must be clear for at least 10° on either side of the bow under all conditions of draft, trim and deck cargo (see figure 3.1).	
3.4.2	Outside the clear sector of visibility from the operating position throughout the horizontal arc measured from 112.5° to port and 112.5° to starboard, obstructions must be kept to a minimum such that normal movements of the operator's head will permit unobstructed visibility (see figure 2).	The clear sectors between blind sectors must be at least 5°.
3.5.3	Not applicable.	Framing between operating compartment windows must not be installed immediately forward of any operating position.

Figure 2 — Field of vision for vessels ≥24m from the operating station (clause 3.4)



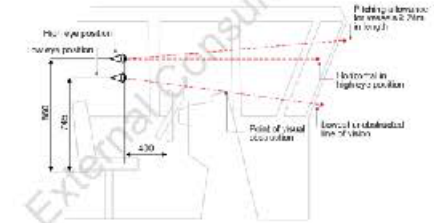
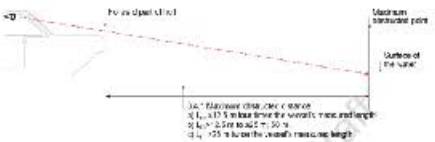
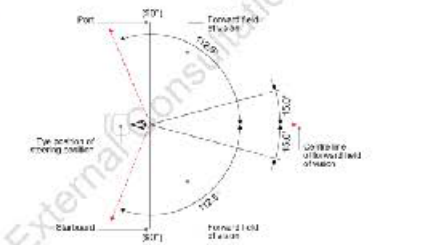


Figure 3 — Field of vision from the operating station (clause 3.4)





The proposed change seeks to make minimal technical changes. The main driver of change for the operating stations was to simplify the standard and make it easier to understand and apply.

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CHANGES

Simplifying and reducing duplication

Proposed to delete Chapter 3 in the current NSCV C1

Chapter 3 Arrangements for provision of navigation signals

3.1 Scope

This Chapter specifies minimum requirements for the the arrangement of a vessel to provide for the navigation signals mentioned in COLREGS.

3.2 Application

This Chapter applies to each vessel that is subject to COLREGS.

Required outcome

3.3 Required outcome — collision avoidance

A vessel must have means to inform other vessels of its location, nature, size, course and status, to help avoid collision or contact.

Deemed-to-satisfy solutions

3.4 Provision of masts and positions for signals

A vessel must be arranged to exhibit the lights and shapes mentioned in COLREGS for the vessel's intended operations.

Proposed consequential amendment to Navigation equipment standard

Schedule 1- Amendment to NSCV Part C: Design and construction,

Section C7C: Equipment

Sub-section C7C: Navigation equipment

[1] In Deemed-to-satisfy solution 4.4 NAVIGATION LIGHTS, SHAPES AND SOUND SIGNALS

Insert after clause 4.4:

(1) The navigation lights, navigation shapes and sound signalling equipment fitted to or carried on a vessel must comply with the provisions of Marine Order 30 (Prevention of collisions) 2016.

(2) The location and vertical separation of the navigation lights on a vessel must comply with the requirements of the COLREGs.

NOTE: Marine Order 30 (Prevention of collisions) 2009 is the Australian implementation of the International Regulations for Preventing Collisions at Sea (COLREGs). This reference is to the performance requirements for navigation lights, navigation shapes and sound signalling equipment in accordance with Marine Order 30 (Prevention of collisions) 2016.

draft

The proposed C1 deletes the current Chapter 3, as it's duplicated in NSCV C7C: Navigation equipment. A small consequential amendment has been proposed to C7C as a result : identified in the presentation under the Proposed consequential amendment at (1) and (2).

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CHANGES

Making the standard easier to apply and minor changes to headroom

Current Standard

4.8 General requirements for accommodation where fitted

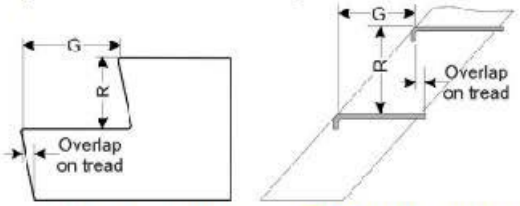
4.8.1 Minimum headroom

An accommodation space on a vessel must have a minimum headroom of at least:

(a) for a vessel of at least 35m measured length — 1.98m;

(b for a vessel of less than 35m measured length — 1.9m.

Figure 7 — Dimensions of steps in stairways



5.13.3.5 Minimum clear height above stairways

The clear height above the top of each stair that forms a stairway must be at least 2 m.

Proposed New Standard

4.4 Headroom

(1) An accommodation space on a vessel must have headroom of at least:

(a) for a vessel less than 24m in measured length – minimum of 1.9m;

(b) for a vessel of at least 24m but less than 35m in measured length – minimum of 1.98m; and

(c) for a vessel of at least 35m measured length – minimum of 2.03m.

NOTE Accommodation space is a defined term within NSCV Part B. To ensure vessels achieve the minimum headroom designers may need to consider things like lights, sensors and smoke detectors that can encroach on the minimum headroom.

(2) Headroom in an accommodation space may be reduced on Class 2 and Class 3 in compartments that are not designed for permanent sustained occupation.

EXAMPLE Compartments not designed for permanent sustained occupation – heads or toilets on AL <12 vessels.

(3) The clear height above the top of each stair that forms a stairway must be;

(a) For a vessel less than 35m measured length – minimum of 2m; and

(b) For a vessel at least 35m measured length – minimum 2.08m.

NOTE This additional clear height above stairs allows for people moving up or down and horizontally in a dynamic fashion.

- No proposed changes for less than 24 m vessels.
- For a vessel between 24 m to 35 m, a minor proposed increase to 1.98 m (or 80mm) has been included.
- Vessels of at least 35 m have a proposed increase in headroom to 2.03 m (or 130mm) and are now MLC compliant and vessels at least 24 m in length being sustainably equivalent to MLC.
- AMSA understands the minimum clear height above stairs to be a prevalent issue based on injury data and feedback. We have moved this within the standard, so all headroom data is in the same location.

Australian Government
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CHANGES

Improvements to ventilation, natural and mechanical to improve air quality.

Proposed New Standard

4.6 Ventilation

(1) All enclosed accommodation spaces must be ventilated at all times as follows:

(a) the system of ventilation must supply air free of engine exhaust and other contaminants;

(b) Mechanical ventilation of the capability specified must be provided to all accommodation spaces on the following vessels:

i. Class 1 vessels – Capable of providing 10 changes of air per hour.

ii. Class 2 and 3 vessels – Capable of providing 6 changes of air per hour; or

(c) Natural ventilation of the capability specified must be provided at all accommodations spaces on the following vessels;

i. Class 1 vessels – at least 2 openable windows or similar apertures (one inlet and one outlet) where the total area of the two is required to be at least 5% of the compartment air volume in that particular space.

ii. Class 2 and 3 vessels – at least 2 openable windows or similar apertures (one inlet and one outlet) where the total area of the two is required to be at least 4% of the compartment air volume in that particular space.

NOTE 1 Changes of air per hour is calculated when all access and other openings (other than ventilation intakes) to the spaces are closed.

NOTE 2 Open vessels or small vessels with a superstructure and opening windows may rely on natural ventilation only if the requirements of 4.6 and 4.7 can be satisfied.

(d) all sanitary spaces shall have ventilation to the open air, independently of any other part of the accommodation; and

(e) power for the operation of mechanical ventilation must be available at all times when the crew is living or working on board.

BE COVIDSAFE

AHPPC STATEMENT

The spread of certain respiratory diseases such as COVID-19 in indoor environments may be limited through improved ventilation. This is noted by the Australian Health Principal Protection Committee (AHPPC). Improved ventilation is a potential additional control measure within a hierarchy of controls. However, ventilation controls cannot replace other infection prevention and control mechanisms. The AHPPC states that factors that help to manage the risk of transmission of COVID-19 include:

World Health Organization

Roadmap to improve and ensure good indoor ventilation in the context of COVID-19

The Australian Health Principal Protection Committee (AHPPC) and the World Health Organisation (WHO) have issued guidance on improved ventilation as an additional control measure for the management of viruses (like COVID-19). We have used their guidance as a basis, while retaining practical application of natural ventilation for many small boats.

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CHANGES

Concurrent legislation and clarifying noise levels on DCV's

Current Standard

Table 5 — Application of deemed-to-satisfy clauses for different accommodation levels

Clause	AL<12	AL12-36	AL36-72	AL72+
4.8 General requirements for accommodation where fitted				
4.8.1 Minimum headroom	Applies	Applies	Applies	Applies
4.8.2 Control of vermin and disease	Applies	Applies	Applies	Applies
4.8.3 Ventilation	Applies	Applies	Applies	Applies
4.8.4 Temperature control			Applies	Applies
4.8.5 Lighting	Applies	Applies	Applies	Applies
4.8.6 Noise and vibration	Applies	Applies	Applies	Applies

6.15 Protection from excessive noise levels

A person on board a vessel must not be exposed to noise levels that exceed the levels permitted under the *Code on Noise Levels On Board Ships*.

4.8.6 Noise and vibration

Accommodation spaces on a vessel must be arranged and equipped to comply with the *Code on Noise Levels On Board Ships*.

4.10.4.2 Noise

Sleeping accommodation must comply with the *Code on Noise Levels On Board Ships*.

1.3 Application

1.3.1 The Code applies to new ships of a gross tonnage of 1,600 and above.

1.3.2 The specific provisions relating to potentially hazardous noise levels, mitigation and personal protective gear contained in the Code may be applied to existing ships of a gross tonnage of 1,600 and above, as far as reasonable and practical, to the satisfaction of the Administration.

1.3.3 The Code may be applied to new ships of a gross tonnage of less than 1,600 as far as reasonable and practical, to the satisfaction of the Administration.

Proposed New Standard

Table 4 — Application of requirements for accommodation spaces

Clause	AL<12	AL12-36	AL36-72	AL72+
4.4 Headroom	Applies	Applies	Applies	Applies
4.5 Control of vermin and disease	Applies	Applies	Applies	Applies
4.6 Ventilation	Applies	Applies	Applies	Applies
4.7 Temperature control			Applies	Applies
4.8 Lighting	Applies	Applies	Applies	Applies
4.9 Noise and vibration	Applies	Applies	Applies	Applies

4.9 Noise and vibration

(1) Where there is the potential for exposure to noise that can contribute to hearing loss, spaces on a vessel must be arranged and equipped to comply with the following work health and safety requirements:

(a) for vessels <1600 gross tonnage in operational area categories B, C, D and E – the *Code of Practice for managing noise and preventing hearing loss at work*, produced by Safe Work Australia;

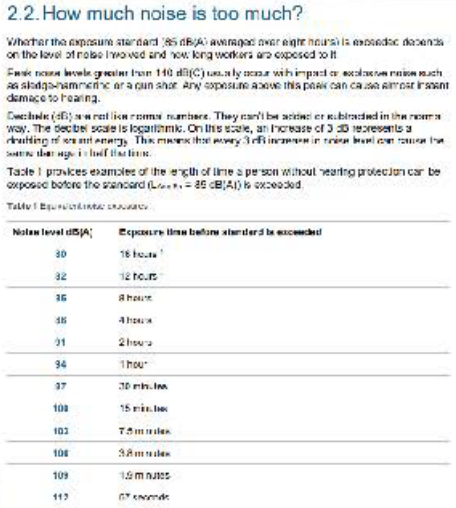
i. exposure durations greater than 8 hours must consider the effects of extended exposure.

NOTE 1 The *Code of Practice for managing noise and preventing hearing loss at work* includes provisions for: 1. Noise and its effects on health and safety; 2. The risk management process; 3. Assessing the risk; 4. Controlling the risk; and 5. The role of designers, manufacturers, importers, suppliers and installers of plant, substances or structures.

NOTE 2 As a guide, vessels over 50 m in length may exceed 1600 gross tonnage.

(b) for vessels ≥1600 gross tonnage or vessels of operational categories A or B extenced – SOLAS Chapter II-1 Regulation 3-12 – Protection against noise.

NOTE SOLAS Regulation 3-12 calls up the *Code on noise levels on board ships* as adopted by the Maritime Safety Committee by resolution MSC.337(91).


2.2. How much noise is too much?

Whether the exposure standard (85 dB(A) averaged over eight hours) is exceeded depends on the level of noise involved and how long workers are exposed to it.

Peak noise levels greater than 140 dB(C) usually occur with impact or explosive noise such as sledgehammering or a gun shot. Any exposure above this peak can cause almost instant damage to hearing.

Decibels (dB) are not like normal numbers. They can't be added or subtracted in the normal way. The decibel scale is logarithmic. On this scale, an increase of 3 dB represents a doubling of sound energy. This means that every 3 dB increase in noise level can cause the same damage in half the time.

Table 1 provides examples of the length of time a person without hearing protection can be exposed before the standard ($L_{eq,8h}$ = 85 dB(A)) is exceeded.

Table 1 Equivalent noise exposure

Noise level dB(A)	Exposure time before standard is exceeded
80	16 hours
82	12 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.5 minutes
106	3.8 minutes
109	1.9 minutes
112	57 seconds

The code on *Noise levels on board ships* only applies to vessels of 1600 gross tonnage and above (so not most DCVs). As DCVs are workplaces, concurrent legislation already exists, the proposed standard simply points to the existing *Code of Practice for managing noise and preventing hearing loss at work,* which is produced by Safe Work Australia. This applies to vessels under 1600 GT—most DCVs.

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CHANGES

Incorporate national & international standards. Improving accessibility on vessels considered public transport

Proposed New Standard

ACCESS FOR PERSONS WITH DISABILITIES

4.16 Vessels considered public transport must be accessible to persons with disabilities

Public transport operators have an obligation under the *Disability Discrimination Act 1992 (Cth)* public transport standards to provide an accessible environment for passengers with disabilities to conveyances, including ferries.

NOTE 1 The transport standards are known as the *Disability Standards for Accessible Public Transport 2002*.The *Disability Standards for Accessible Public Transport Guidelines 2004* provide additional guidelines.

NOTE 2 Additional guidance is provided by – *Guidelines: Equivalent Access under the Disability Standards for Accessible Public Transport 2002* (Cth) that designer may need to be aware of at the design stage.

NOTE 3 AS 1428.1:2021 Design for access and mobility Part 1: General requirements for access - New building work, maybe applicable.

The proposed standard has been updated to reflect the obligations of public transport operators under the *Disability Discrimination Act 1992* and to reference the transport standards and other guidelines to make them easier to apply.

Australian Government
Australian Maritime Safety Authority

CHANGES

Proposed New Standard

Escape signage requirements for all class 1, 2 and 3 vessels.

ANNEX B MARKING AND SIGNAGE

B1 Scope

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 marki 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

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.

Table 26 - Requirements for marking of escapes

Type of marking	Areas requiring marking 1. Escapes; 2. Assembly stations; 3. Entrances to evacuation routes; 4. Evacuation paths
Low location lighting supplied by a central emergency power source (Example: Generator)	Class 1 vessels ≥ 36 pax or 12 berthed pax Optional for class 2 and 3 vessels
Low location lighting supplied by a self-contained emergency power source (Example: Battery)	
Photoluminescent marking (minimum luminance of 30 mcd/m² for not less than 90 minutes)	Class 1 vessels <36 pax and Class 2 and 3 vessels

(7) Markings must remain visible for at least the greater of:

(a) the time mentioned for emergency lighting in Part C Subsection 5B; or

(b) 2 hours.

(8) Markings for escape and evacuation must comply with either:

(a) For Class 1 vessels carrying more than 12 berthed passengers or more than 36 day passengers;

i. SOLAS Chapter II-2 – Construction – Fire Protection, Fire Detection and Fire Extinction - Part D – Escape; and

ii. *IMO Resolution A.1116(30)*.

(b) For Class 2 and 3 vessels carrying less than 12 passengers.

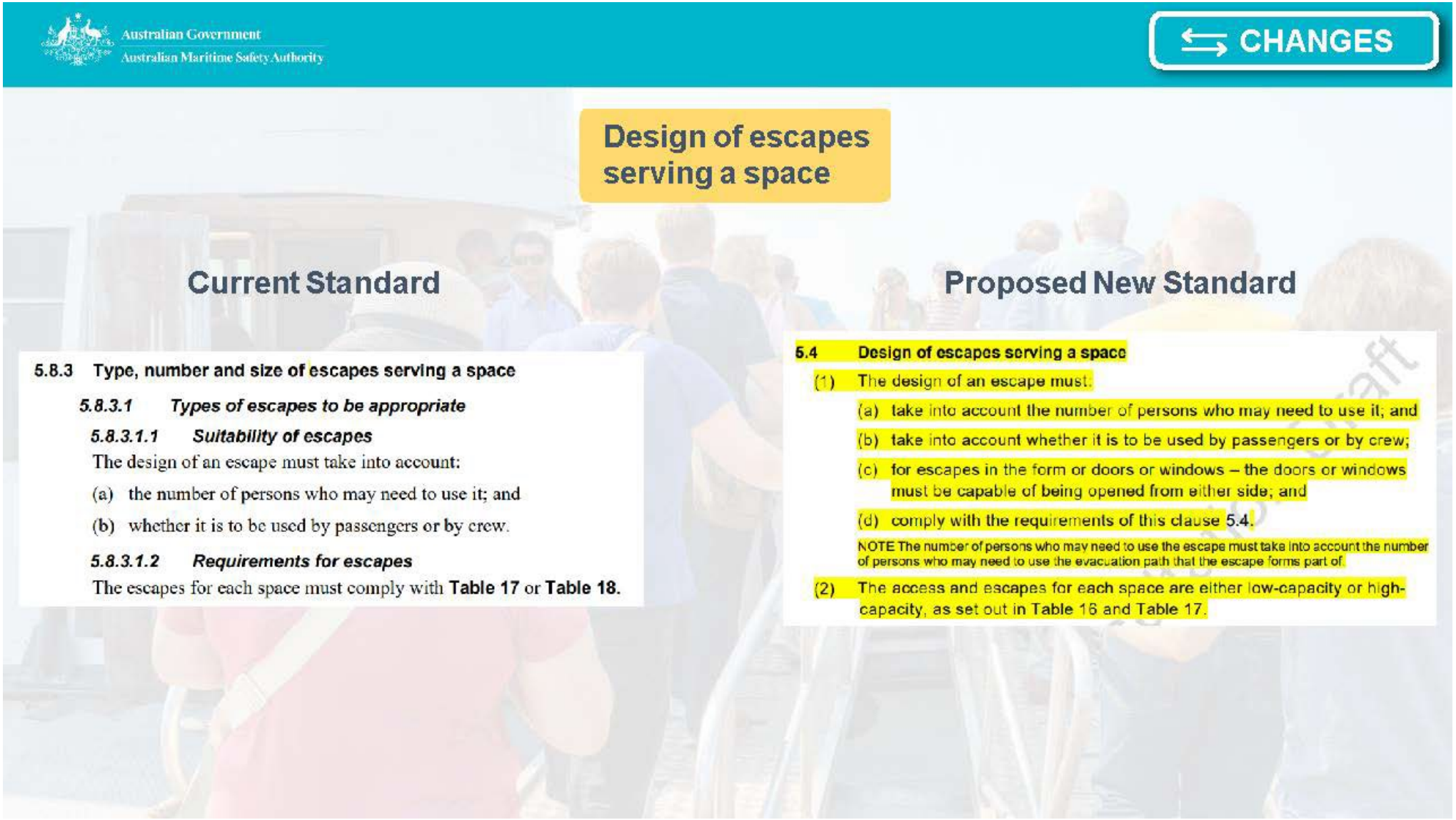
i. Comply with Annex B.

Figure B1 Exit and escape signs

NOTE 1 Photoluminescent signs have different ratings for indoor and outdoor use and different service and replacement intervals depending on the rating/quality of the sign/marking.

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

Improving escape marking (both signage and lighting) is a major component of the proposed C1 standard.
Annex B provides basic information for small-to-medium operators to be able to purchase the correct escape markings. We have also provided some additional compliance pathways via ISO and Australia standards to increase flexibility etc.



The proposed changes for the design of escapes serving a space, are mostly minor drafting updates to improve the readability and make the standard easier to apply.

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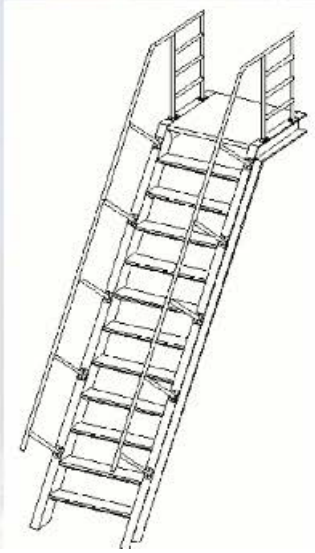
CHANGES

Minor Improvements to Low-capacity escapes

Current Standard

Table 17 — Types of escapes from accommodation spaces

Nominal number of persons within the space (sum of number of passengers and 2/3 number of crew)	Primary access	Alternative escapes
0 to 4	Low capacity acceptable, rung ladders limited to use by crew only and not more than 1.5 m high	Low capacity acceptable
5 to 12	Low capacity door, stairway, passageway or walkway acceptable (but not rung ladder), step ladders limited to not more than 1.5 m high	Low capacity acceptable
13 to 72	High capacity	Single high capacity, or low capacity counted at 18 persons each
>72	High capacity	High capacity and up to 4 low capacity counted at 18 persons each



Proposed New Standard

Table 16 — Types of escapes from accommodation spaces

Nominal number of persons within the space The nominal number of persons in the space is: - for Class 1: the sum of the number of passengers and 2/3 number of crew; and - for Class 2 and 3: the sum of the number of passengers and the number of crew.	Primary access	Alternative escapes
0 to 4	Low-capacity acceptable, rung ladders limited to use by crew only and not more than 2.2 m high	Low-capacity acceptable
0 to 4	Low capacity acceptable, ladders limited to between 60 and 75 degrees with handrails either side and not more than 2.2 m high	Low-capacity acceptable
5 to 12	Low-capacity door, stairway, passageway or walkway acceptable (but not rung ladder), step ladders limited to not more than 2.2 m high	Low-capacity acceptable

We have proposed an increase in some low-capacity ladders, like ones you would commonly see on a flybridge, or even perhaps a tug or large naval ship. The existing standard only allows these types of ladders up to 1.5 m, which is not even the tween deck height of most vessels.

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CHANGES

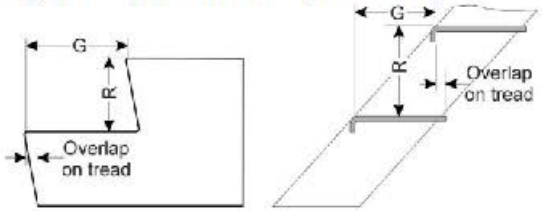
Minor update to steps in a stairway

Current Standard

Table 25 — Dimensions of steps in stairways

Characteristic	Steps for high capacity escapes (mm)	Steps for low capacity escapes (mm)	Preferred values (mm)
Rise (R)	115 to 205	≤230	190
Going (G)	240 to 355	≥150	275
R to G relationship	550 ≤(2R + G) ≤700	550 ≤(2R + G) ≤700	600 ≤(2R + G) ≤660
Overlap on tread	≥ 25 if G <254 0 if G ≥ 254		

Figure 7 — Dimensions of steps in stairways

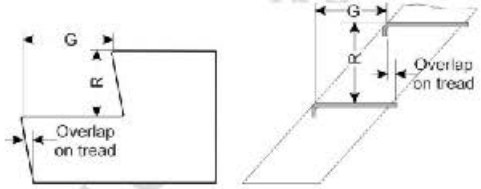


Proposed New Standard

Table 24 — Required dimensions of steps in stairways

Characteristic	Steps for high-capacity escapes (mm) (Based on NCC Vol 2 safe movement and access)	Steps for low-capacity escapes (mm) (Based on AS 1657- 2018)	Spiral Steps (mm) (Based on NCC Vol 2 safe movement and access)	Preferred values (mm)
Rise (R)	115 to 190	130 to 225	140 to 220	190
Going (G)	240 to 355	215 to 355	210 to 370	275
Slope relations (2R + G)	550 Min 700 Max	540 Min 700 Max	590 Min 680 Max	625
Tread depth (min)	185	185	See NCC Vol 2 safe movement and access	n/a
Overlap on tread	≥ 30 if G <254. 0 if G ≥ 254			n/a

Figure 8 - Dimensions of steps in stairways



Very minor proposed changes to the dimensions of steps in stairways (based on updates to the NCC and AS).

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CHANGES

Addition of a "No Climb Zone" to mitigate persons overboard on passenger vessels.

Proposed New Standard

(2) Seating for passengers on a vessel:

(a) must be located in a position:

(i) protected from the force of the sea; and

(ii) where the likelihood of falling overboard or injury is minimal; and

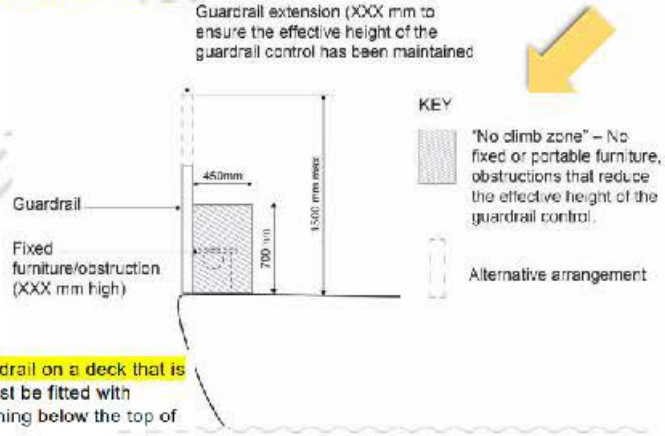
(b) where a seat does not have an adequate backrest or support, adequate hand holds must be provided and seating or obstructions in the "no climb zone" must not reduce the height and performance of person overboard preventions mentioned in clause 6.4.

EXAMPLE OF OBSTRUCTIONS Pipes, hatches etc.

NOTE Seating may be placed in the no climb zone with increased guardrail height to ensure the performance requirements of 6.4 are maintained.

"No climb zone" is applicable to Passenger vessels which can be reasonably expected to carry children. – We can improve the drafting in the standard to reflect this

Figure 4 – No climb zone



"No climb zone" – No fixed or portable furniture, obstructions that reduce the effective height of the guardrail control

(5) On a Class 1 vessel, an opening in a bulwark or guardrail on a deck that is accessible by passengers less than 12 years old, must be fitted with arrangements that limit the size of a single clear opening below the top of

Introduction of a 'No climb zone' for class 1 passenger vessels on decks accessible by passengers less than 12 years old. We are keen to hear you feedback on this and improve the drafting of the provision to incorporate the above point.

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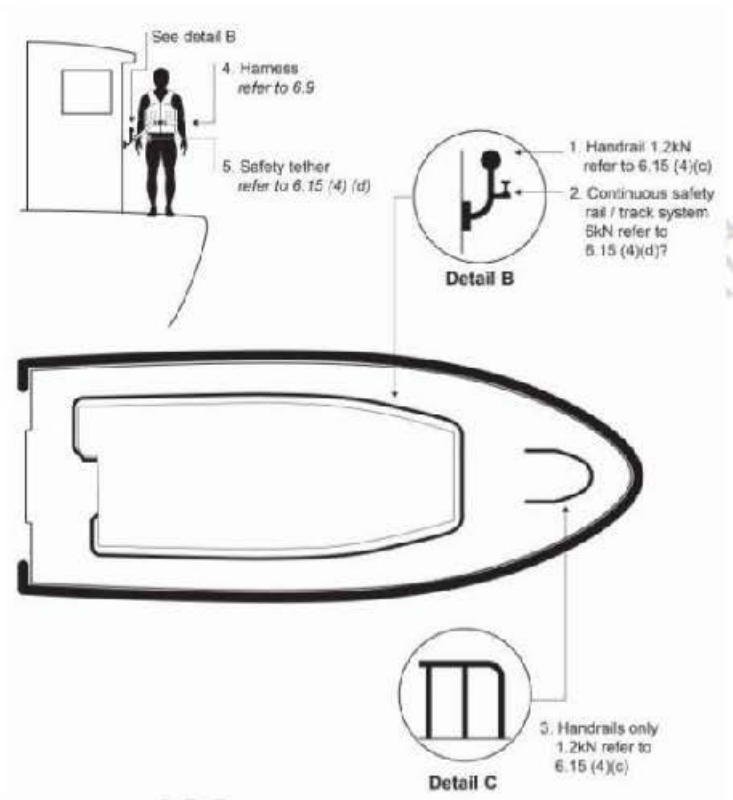
CHANGES

Proposed New Standard

Pilot vessel continuous safety rails clarified and minor amendments.

Figure 11 — Pilot vessel uninterrupted, continuous safety rail system and clipping point illustration



Continuous safety rail for pilot vessels—proposed to increase track system to 6kN and maintain 1.2kN for handrails.

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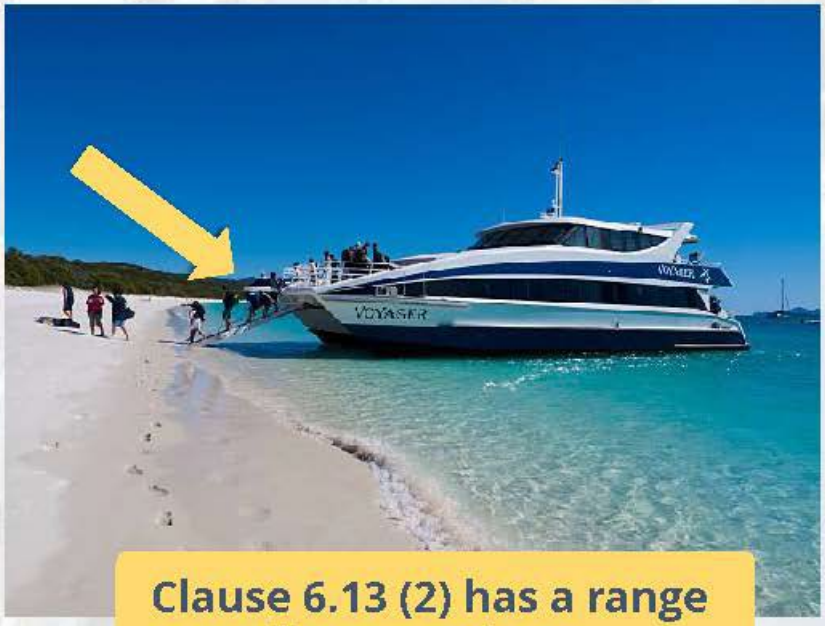
CHANGES

Wharf supplied access 'vs' vessel fitted gangways.

Fixed access – Wharf or Port Authority supplied

Clause 6.12 and work health and safety requirements – Safe Work Australia

Vessel access – Part of the vessel equipment



Clause 6.13 (2) has a range compliance options

Vessel-supplied access and gangways are proposed to stay in the standard as they are a surveyed item.

Questions?

Visit the consultation webpage for:

- **Recording of this webinar**
- **Answers to your frequently asked questions**
- **Consultation closes 24 April 2022**

https://www.amsa.gov.au/wheelhouse-visibility-escape-accommodation-and-personal-safety-have-your-say-proposed-changes

Thank you

WHY

HISTORY

CHANGES

FEEDBACK

Questions and answers

Question 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?

Answer — 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 the current NSCV Section C1 (Edition 1.2, dated 24 July 2018) or Edition 2 of NSCV Section C1.
1 January 2025	Vessels constructed or modified must comply with Edition 2 of NSCV Section C1.

Question 2 — Would a portable toilet be considered as a toilet suitable for NSCV C1 requirements?

Answer — A toilet has been defined as part of the proposed changes and a portable toilet could be engineered and 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).

Question 3 — NA's cannot realistically assess wheelhouses as per the current C1 document. is this to be removed or able to be assessed by other surveyors?

Answer — 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.

Question 4 — No its about disability access requirements vs sill heights (there is a conflict) and can you please answer our question on vessel lengths?

Answer — 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.

Question 5 — Does AMSA provide guidance for the design standard for gangways, which are fitted as part of vessel?

Answer — Yes, in clause 6.13 of the new proposed NSCV C1 the notes provide some guidance, also to external resources.

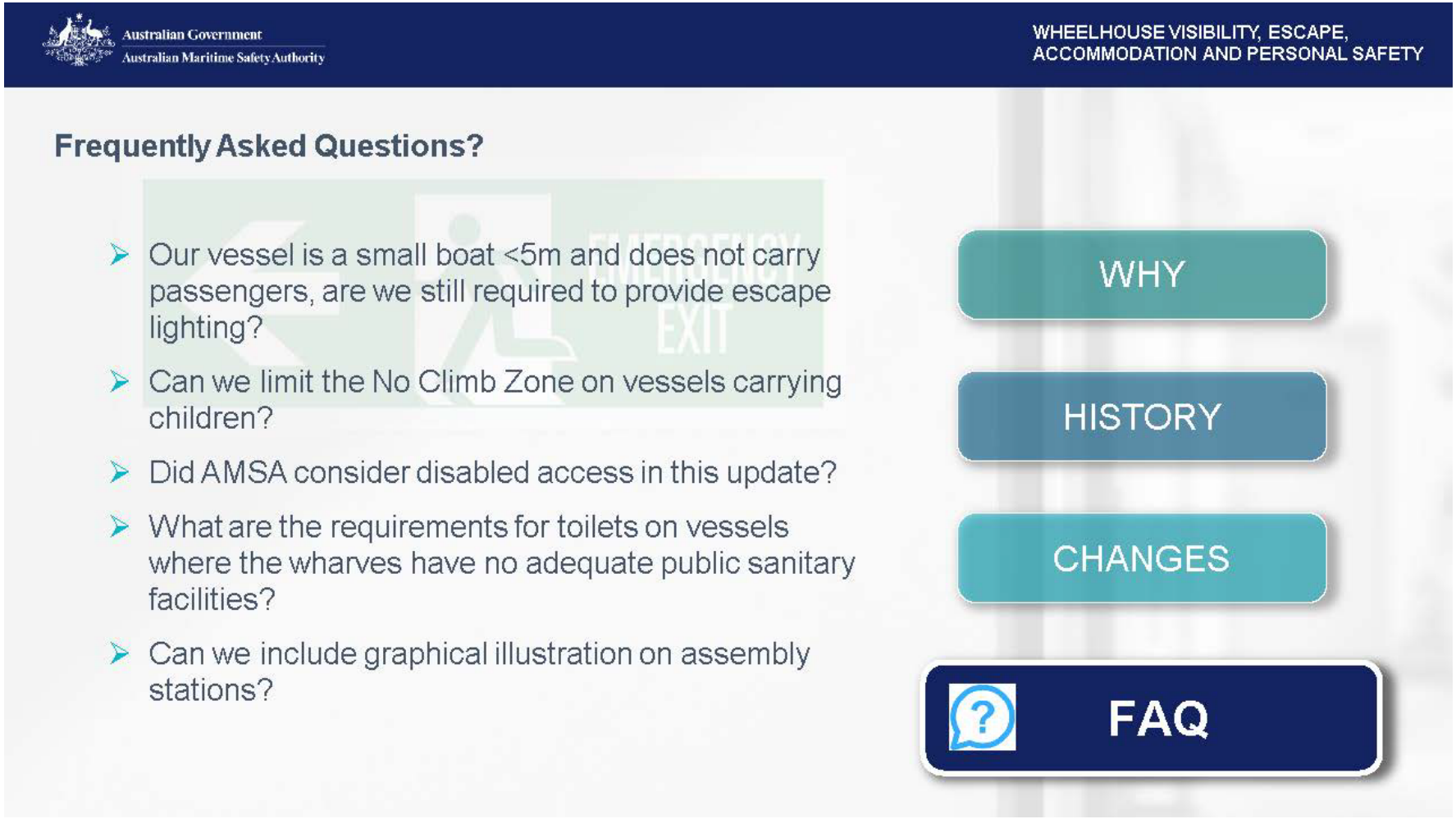
Question 6 — You'd better make it easier to build ferries over 35m if you are proposing to limit the area available for seating per the 'no climb zone' proposal. Surely parents have some responsibility to supervise.

Answer — 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.

Question 7 — Without C2 being finished how do you propose to reconcile this with current sill height requirements etc?

Answer — It is anticipated that NSCV C2 will be available before the end of 2022, which is before NSCV C1 is proposed to commence.

And finally, thank you for your attendance and I look forward to your feedback. This is the end of the presentation. See you next time.



Answers

- Probably not, small open boats we will consider further. MO504 still has 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)
- Yes, that's already implied by having the no clime zone only applicable to passenger vessels (we will review the drafting of the provision and make the link clearer)
- Yes, the accessibility sections of this standard have been updated, the Human rights commission was consulted as a subject matter expert.
- Same as the current standard, no changes have been proposed.
- We will look at defining an assembly station and we may provide an illustration as part of the definition.

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