

Part 3I: Accommodation, Access, Escape and Personal Safety Rules

Proposal Summary for Consultation

This document is part of a series of documents to support consultation on changes to the existing Design, Construction and Equipment rules (the DCE rules). Other documents that form part of the consultation package include:

- *Invitation to Comment* - An overview of the consultation package and summary of the proposals, including information on how to have your say on the proposals.
- *Proposal summaries* - Details of the proposed changes for each of the five Rule topics being consulted on in this package: Survey and Certification; Navigation Systems and Equipment; Lifting Appliances and Working Gear. This document is the proposal summary for Accommodation, Access, Escape and Personal Safety.
- The draft Part 3I Rules and Maritime Transport Instrument for Part 3I include provisions for disabled passengers and other passengers requiring special assistance. A separate proposal summary is available for those sections.
- *Draft Maritime Rules* and *draft Maritime Transport Instruments (MTIs)* – a set of rules and MTIs for each of the four Rule topics.
- A template to support preparation of your submission.

These documents, and other supporting information, can be accessed at
<https://www.maritimenz.govt.nz/about-us/consultations/dce-40-series-package-3>

Note: This document refers to maritime incidents where people were injured or died- specifically the loss of the fishing vessel Jubilee.

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Purpose of this document

1. Maritime NZ is proposing significant reform of the Maritime Rules for vessel design, construction and equipment (the DCE Rules) for domestic commercial vessels.
2. This document provides the detailed analysis of the proposed new Accommodation, Access, Escape, and Personal Safety Rules and Maritime Transport Instrument (MTI). It explains our understanding of the issues and current situation (the 'status quo') under the present rules and sets out the analysis and rationale behind the proposed changes. Any potential impacts we have identified from the proposed amendments are also described. The information included is intended to meet the Government's Regulatory Impact Analysis requirements.
3. This document should be read in combination with the Invitation to Comment (which provides an overview of the proposed changes) and other documents that form part of the consultation package, available on Maritime NZ's website at <https://www.maritimenz.govt.nz/about-us/consultations/dce-40-series-package-3>

Note: The word 'ship' is used in the Maritime Transport Act 1994 and the proposed Rules and MTIs. This term is used to refer to any kind of boat or craft and does not refer to a craft of a specific size. For the avoidance of doubt, the terms vessel, ship and boat can be used interchangeably. This document uses the term 'vessel'.

Introduction to Accommodation, Access, Escape, and Personal Safety

4. Accommodation, access, escape, and personal safety arrangements on a commercial vessel are fundamental to protecting the wellbeing and safety of people on board. They help ensure that crew and passengers can carry out daily activities, work, move around the vessel, and evacuate safely in both normal and emergency situations. Poor accommodation standards, and ineffective safety measures or means of escape can result in harm to people on board. The risk of harm increases with factors such as voyage duration, occupancy, vessel layout, and exposure to hazardous conditions.
5. The current rules addressing accommodation, access, escape, and personal safety are spread across multiple vessel-specific Parts and have developed incrementally over time. While many requirements are broadly aligned, the rules have inconsistencies in thresholds, terminology, and the level of prescription applied to similar spaces and risks. In some areas, the rules rely heavily on surveyor discretion without adequate guidance, which can lead to variation in interpretation and reduced certainty at the design, build, and survey stages.
6. The proposed approach seeks to modernise and consolidate current requirements by introducing a more consistent, risk-based framework across vessel types. The proposals seek to clarify expectations for new vessels at the design stage, improve alignment between requirements and actual risk, and strengthen minimum standards where appropriate. At the same time, the proposals do not require retrofitting, which would impose disproportionate impacts on the existing fleet. Where practical, the proposals build on established requirements

that already apply to some vessels and extend these in a targeted way to improve clarity, consistency, and safety outcomes.

Main proposals

7. The main proposals are outlined below:

- **Proposal 1: Thresholds for crew toilets and washbasins.** Would introduce a new, consistent threshold requiring crew toilets and washbasins on new vessels that normally undertake voyages of four hours or more. This would improve hygiene and crew welfare on longer trips while avoiding retrofit requirements for existing vessels.
- **Proposal 2: Thresholds for crew accommodation (excluding toilets and washbasins).** This would require crew accommodation (such as sleeping, cooking, eating and wash facilities) on new vessels that normally undertake voyages of 24 hours or more. Accommodation requirements would be based more closely on fatigue and welfare risks rather than vessel type or length.
- **Proposal 3: Heights of safety barriers on passenger ships.** This would introduce a minimum safety-barrier height of one metre for new passenger vessels. Defined exceptions would apply for smaller vessels operating in enclosed waters where alternative safety measures provide an equivalent level of protection.
- **Proposal 4: Lower or no safety barriers if normal operations are impeded.** This would replace fragmented, vessel-specific provisions with a clear and consistent framework. Lower or no safety barriers would be allowed where normal vessel operations would be impeded, provided specified alternative safety measures are in place and the conditions are clearly recorded.
- **Proposal 5: Measures to protect children from falling.** This would introduce new requirements in spaces that permit access by children on new passenger vessels. These requirements would include limits on gaps in barriers and features that facilitate climbing, to reduce the risk of children falling or passing through safety barriers. The available evidence does not currently support a clear assessment of the safety benefits and costs of this proposal. We are seeking stakeholder input to inform our final decisions.
- **Proposal 6: Harmonisation of personal safety requirements.** This would harmonise personal safety requirements for new vessels across vessel types, including clearer and more consistent rules for guardrails, taut wire, barrier spacing, cockpit openings, and handholds. Existing vessels would be able to retain safe and fit-for-purpose arrangements.
- **Proposal 7: Means of escape and watertight doors.** This would require spaces below the bulkhead deck on new vessels to have at least one means of escape that does not rely on a watertight door. This proposal would recognise the risk that watertight doors may be unavailable during flooding emergencies. Exceptions would apply for existing vessels where compliance is impracticable, if criteria to mitigate the risks are met.
- **Proposal 8: Exceptions to requirements for two means of escape.** This would introduce a risk-based framework setting out criteria for when a second means of escape

is not required. It would replace multiple vessel-specific exceptions with a consistent approach that would apply across different types of vessel types and different spaces.

- **Proposal 9: Number and type of means of access and escape.** This proposal would clarify what constitutes primary means of access and alternative means of escape. Requirements would distinguish between accommodation spaces and operational workspaces, and between spaces with capacity for 12 or fewer persons and spaces with higher occupancy.
- **Proposal 10: Capacity and dimensions of means of access and escape.** This proposal would apply the established dimensional standards currently used for passenger accommodation to new vessels. It would set minimum widths, heights, slopes, and capacities for escape routes, while allowing existing arrangements to continue where a surveyor considers them viable and safe.

New versus existing vessels

8. Most of the proposals in this document include different requirements for “new” and “existing” vessels, as the costs of requiring an existing vessel to comply with the proposals would be disproportionate to the benefits:
 - “New vessels” are newly constructed and enter service after the commencement date, and also include second-hand imported vessels that enter service after the commencement date
 - “Existing vessels” were already operating as domestic commercial vessels prior to commencement date, and also includes vessels that are mid-build at commencement date.¹
9. More detail on the distinction between new and existing vessels, including the treatment of certain Australian vessels and vessels surveyed to class that enter service after commencement date, is available in the accompanying Policy Proposal for Survey and Certification.
10. For some proposals, the impact on existing vessels is uncertain, particularly proposals 8 and 9. We welcome any information that stakeholders can provide on these proposals, as well as suggestions about how any differences should be accommodated.

Harmonisation

11. The proposals aim to harmonise requirements across vessel types where it makes sense to do so, but not where there are sound reasons to retain differences.

¹ Provided that its keel was laid, or was at a similar stage of construction, within the period beginning 2 years before the commencement date and ending 1 year after the commencement date.

12. Sailing ship characteristics, including constrained internal space, heeling, and dynamic vessel motion, give rise to some justifiable differences in accommodation and safety features, which have been retained. For instance:
- While other vessel types are required to have one toilet for every 8 crew, sailing ships would continue to have a ratio of 1:12.
 - Various other accommodation differences, such as seating and bunk dimensions.
 - Retaining the current one metre minimum height of safety barriers irrespective of vessel length.
 - Additional galley requirements to ensure safe cooking as a sailing ship heels or rolls.
13. We welcome feedback on any of the ship specific requirements in the proposed Rule and MTI, as well as whether there are current differences that are not in the Rules and MTI that should be retained.

What do the changes mean for my ship/vessel/boat?

14. A 'snapshot' of the proposed changes to the radio rules is included in Appendix 1 to this document.

Please note that this document sets out the main changes that are proposed but does not include all changes that may have an impact on an operation. Therefore, we strongly recommend you also refer to the draft rule and maritime transport instrument.

Proposal 1: Thresholds for crew toilets and wash basins

What we are proposing

We propose setting a new threshold for when a ship must have toilets and wash basins for crew. The proposed new threshold would apply if a ship normally undertakes voyages of four hours or more in duration.

This proposal would only apply to new ships. Existing vessels would be unaffected by the proposal and could continue to meet current requirements. Exceptions for some vessels (e.g. open boats) would continue to apply. Chemical toilets would continue to be an option.

Status quo

Thresholds for when a ship is required to have crew accommodation, including toilet and wash basins, vary across vessel types and are summarised below.

Passenger ships (40A)	Non-passenger ships (40C)	Fishing ships (40D)	Sailing ships (40E) ²
– 12 metres or more in length AND – Normally engaged on voyages of 36 hours or more, or crew required to sleep on board		– Voyages of more than 24 hours	

What is the problem / rationale for the change?

Inconsistent requirements

Current accommodation thresholds differ across vessel classes in ways that do not reflect meaningful differences in vessel risks or operations. These inconsistencies create confusion and unequal treatment of crew performing similar work.

Sanitation and hygiene

While crew can manage without full facilities for short periods, extended durations without access to adequate sanitary facilities create avoidable health and safety risks. These include:

- Reduced hygiene standards and associated illness risks
- Crew discomfort and distraction from safety-critical duties
- Unsafe improvised toileting practices, including the risk of falling overboard

The current rules also diverge from land-based workplace expectations, where workers must have continual access to toilets. They are also increasingly out of step with comparable

² 40E ships are not explicitly required to have crew accommodation. However, they are required to have passenger accommodation on voyages of more than 24 hours, and these would also be used by crew. In addition, it requires sleeping accommodation for “every person on board” during a voyage of 24 hours or more.

international maritime regulations. For example, Australia's NSCV requires toilets on crew-only vessels after four hours.

Impact of the proposed change

Requiring toilets for crew on more vessels will improve crew welfare and hygiene on new vessels while avoiding costly retrofits for the existing fleet.

It is not possible to definitively estimate the costs of the proposal due to uncertainty about:

- The number and type of new domestic commercial vessels entering service in the future
- Their typical voyage duration
- Whether they would have had crew toilets without this change.

For a new build, the additional cost of a toilet and washbasin would vary depending on the type, quality and ship design. Based on retail prices,³ for a single toilet,⁴ and excluding installation costs:

- \$700 - \$1500 for an electric marine (basic electric flush toilet)
- \$550 - \$1000 for a manual (hand-pump) marine toilet
- \$120 - \$330 for a chemical toilet, with modest additional ongoing costs (e.g. waste breakdown chemicals, rinse chemicals, tank cleaners) that vary with use and type (not quantified below).

A washbasin would add approximately \$410 - \$510. Including labour costs, we estimate the costs to be as shown in the table below.

Configuration	Equipment range	Labour estimate	Total incremental cost
Chemical toilet and wash basin	\$530–\$840	\$350–\$700	\$880–\$1,540
Manual toilet and basin	\$960–\$1,510	\$1,000–\$1,600	\$2,000–\$3,100
Electric toilet and basin	\$1,110–\$2,010	\$1,200–\$2,200	\$2,300–\$4,200

Options analysis

Three options were considered:

Option 1 (status quo): Retain the existing requirements for crew toilets. These are generally aligned with accommodation thresholds based on vessel length, overnight operations, or extended voyage duration, and differ across vessel classes.

³ A boat builder typically has access to materials at a lower price than retail.

⁴ Most domestic commercial vessels have less than 8 crew, so for the majority of vessels only one toilet and washbasin would be required. Additional toilets come with modest cost reductions through use of shared components (i.e. shared wiring, plumbing manifolds, water pumps etc).

Option 2: Crew toilets required on all vessels undertaking voyages of four hours or more. All vessels that normally undertake voyages of four hours or more would be required to provide crew toilet facilities, irrespective of whether the vessel is new or existing.

Option 3 (preferred option): Crew toilets required on new vessels undertaking voyages of four hours or more (preferred option). Crew toilets would be required only on new vessels that normally undertake voyages of four hours or more. Existing vessels would remain subject to current requirements, and existing exceptions (for example, for open vessels) would continue to apply.

How the options compare with the status quo

The following criteria were used to assess the options:

<i>Provides flexible and adaptive regulation:</i>	Both the status quo and Option 2 are inflexible. Option 3 is more adaptive, as it lifts standards for new vessels while allowing existing vessels to continue operating under current requirements, enabling incremental and proportionate change over time.
<i>Rules that are clear and easier to understand and apply:</i>	The status quo is complex, with different thresholds applying across vessels. Both Options 2 and 3 would simplify the framework by introducing a clear threshold.
<i>Maritime safety is maintained or enhanced:</i>	The status quo performs poorly, as it does not manage known hygiene, distraction, and unsafe toileting risks on longer voyages. Options 2 and 3 both enhance safety by addressing these risks directly. Option 2 would achieve this more quickly.
<i>Changes are practical and economically viable:</i>	Option 3 is practical and economically viable because requirements apply only to new vessels and would be incorporated at the design and build stage, where installation is simpler and costs are more predictable, while avoiding retrofit impacts on the existing fleet.

Table 1: Comparing options against the status quo. Thresholds for crew toilets and wash basins

	1. Status Quo	2: Crew toilets must be provided on any ship that normally undertakes voyages of four hours or more in duration	3. Crew toilets must be provided on any <u>new</u> ship that normally undertakes voyages of four hours or more in duration
Provides flexible and adaptive regulation	0	0	0
Rules that are clear and easier to understand and apply	0	+	+
Maritime safety is maintained or enhanced	0	++	+
Changes are practical and economically viable	0	-	++
Overall assessment	0	++	++

Key for qualitative judgements:

- ++** Much better than doing nothing/the status quo/counterfactual
- +** Better than doing nothing/the status quo/counterfactual
- 0** About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual

Preferred option

Option 3 is the preferred option. It harmonises requirements, making them easier to understand and apply, while incrementally enhancing maritime safety without creating costs and disruptions for existing vessels.

What are the marginal costs and benefits of the preferred option?**Table 2: Marginal costs and benefits of proposed four-hour voyage duration threshold for requirements for crew toilets and washbasins**

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
New fishing and sailing ships that typically undertake voyages between 4		~\$500 – \$4,000	Medium

hours and 24 hours duration			Number of vessels affected uncertain, many likely to have these facilities anyway
New passenger and non-passenger ships more than 12 metres in length that undertake voyages of between 4 and 36 hours duration	Most vessels have less than 8 crew, so in most cases a single toilet and washbasin would be required		
New passenger and non-passenger ships less than 12 metres that undertake voyages of more than 4 hours			
Additional benefits of the preferred option compared to taking no action			
Crew on passenger and non-passenger vessels on voyage of 4 hours or more but less than 36 hours	Improved hygiene standards, reduced associated illness risks. Crew comfort improved.		Medium
Crew on fishing and sailing ships on voyages of 4 hours or more but less than 24 hours	Unsafe improvised toileting practices avoided	Low to medium.	Number of vessels affected uncertain, many likely to have these facilities anyway
New passenger and non-passenger ships less than 12 metres that undertake voyages of more than 4 hours			

Questions:

A 1.1 Do you agree that four hours should be is the threshold for when crew toilets should be required?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

A 1.2 Are there any other factors that should affect when crew toilets should be required?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

- A1.3 Are there vessel types, operating profiles, or circumstances where this threshold would be impractical or inappropriate? Please explain.

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Proposal 2: Thresholds for crew accommodation (excluding toilets and washbasins)

What we are proposing

We propose that a ship would need to provide crew accommodation, such as sleeping accommodation, cooking, eating and wash facilities if the ship normally engages in voyages of 24 hours or more. (Note that toilets and wash basins are discussed separately, above.)

Existing vessels would not be affected by this proposal and could continue to meet current requirements. Exceptions for some vessels (e.g. open boats) would continue to apply.

Status quo

Thresholds for all crew accommodation across vessel types are summarised below. Note that these thresholds apply to all accommodation (eating, cooking, wash facilities, sleeping, toilets).

Passenger ships (40A)	Non-passenger ships (40C)	Fishing ships (40D)	Sailing ships (40E)
12 metres or more in length AND - Normally engaged on voyages of 36 hours or more, or crew required to sleep on board		Voyages of more than 24 hours	

What is the problem / rationale for the change?

Inconsistent requirements

Thresholds for requiring crew accommodation currently differ across vessel types in ways that do not reflect meaningful differences in vessel risks or operations. Different requirements can apply to similar voyages depending on vessel type, creating confusion and unequal treatment for crew performing comparable work.

Sustenance and rest

Longer voyages without opportunities for crew to access to rest areas and cooking facilities directly affect crew welfare and safety. Fatigue research shows that:

- Fatigue risk increases significantly once duty periods extend beyond approximately 24 hours; and
- Access to appropriate sleeping accommodation and food-preparation facilities are among the most effective ways to mitigate fatigue-related risk.

The current accommodation requirements in Rules Parts 40A and 40C are only triggered if:

- Voyages extend to 36 hours or more or crew are required to sleep on board; and
- The vessel is 12 metres or more in length.

- Vessel length thresholds do not reliably correlate with fatigue risk, which arises from the duration and nature of operations.

Impact of the proposed change

For vessels affected by the proposal, fatigue risk would be reduced and crew wellbeing and safety improved.

Because this proposal would only apply to new vessels, it is unclear how many will be impacted due to uncertainty around:

- The number and type of new domestic commercial vessels entering service in the future
- Their typical voyage duration
- Some affected vessels under the status quo would be unaffected anyway; owners may choose to have crew accommodation even if not required.

The main cost impact of this proposal would be sleeping accommodation. Most passenger and non-passenger vessels on voyages of 24 hours or more but less than 36 hours have some form of mess and dining facilities that are proportionate to the length of voyage.

A sleeping room for 2 crew, including the cost of bunks, mattresses, fittings, ventilation, lighting, and access ladder/stair and doors, could add \$35,000 to \$50,000, or around 1% to 3% of a small vessel build cost of \$1 - \$3 million.⁵ This assumes:

- A small vessel with few crew (typical of the majority of the domestic commercial fleet).
- Basic shared accommodation with stacked bunks⁶ in a dedicated room.
- A door to access it and stairs or inclined ladder if below deck.
- Insulation, internal wiring, and ventilation.
- Around \$5,000 per square metre square metre of additional space (at or near the lower end of generally accepted cost estimates for new builds).

Options analysis

What options were considered

Three options are being considered:

Option 1 (Status quo): Retain the existing thresholds for accommodation requirements.

Option 2: Crew accommodation requirements apply if a ship normally engages in voyages 24 hours or more. This includes both new and existing vessels.

⁵ Costs rise with additional crew but do so at a reducing rate, e.g. for 3 crew the estimated cost is \$40,000 - \$60,000.

⁶ Bunk dimensions would be as specified in the draft MTI.

Option 3 (preferred option): Crew accommodation requirements apply to a new ship if it normally engages in voyages 24 hours or more. For existing vessels, current thresholds apply.

How the options compare with the status quo

The following criteria were used to assess the options:

<i>Provides flexible and adaptive regulation:</i>	The status quo and Option 2 are either inflexible or not adaptive. Option 3 is more adaptive, as it would lift standards for new vessels while allowing existing vessels to continue operating under current requirements, enabling incremental change over time.
<i>Rules that are clear and easier to understand and apply:</i>	The status quo is complex and inconsistent, with different thresholds applying across vessel types without a clear rationale. Options 2 and 3 would both improve clarity by introducing a single, duration-based threshold for setting requirements.
<i>Maritime safety is maintained or enhanced:</i>	The status quo performs poorly as the rules require accommodation at a point well after fatigue risks are known to increase. Options 2 and 3 would both enhance safety by aligning accommodation requirements with recognised fatigue thresholds. Option 2 would deliver the greatest immediate safety uplift, but Option 3 would still improve outcomes over time.
<i>Changes are practical and economically viable:</i>	The status quo avoids new costs. Option 3 is practical and economically viable because requirements would apply only to new vessels. New requirements can be incorporated at the design and build stage, when installation is more straightforward and costs are more predictable. Option 3 would avoid imposing retrofit costs on existing vessels.

Table 3: Comparing options against the status quo. Thresholds for crew accommodation (excluding toilets and washbasins)

	1. Status Quo	2: Crew accommodation required if voyages normally ≥24 hours: new and existing ships	3. Crew accommodation required if voyages normally ≥24 hours: new ships only
Provides flexible and adaptive regulation	0	0	+
Rules that are clear and easier to understand and apply	0	+	+

Maritime safety is maintained or enhanced	0	++	+
Changes are practical and economically viable	0	-	++
Overall assessment	0	+	++

Key for qualitative judgements:

- ++ Much better than doing nothing/the status quo/counterfactual
- + Better than doing nothing/the status quo/counterfactual
- 0 About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred option

Option 3 is the preferred option. It harmonises requirements, making them easier to understand and apply, while incrementally enhancing maritime safety without creating costs and disruptions for existing vessels.

What are the marginal benefits and costs of the preferred option?

Table 4: Marginal costs and benefits of proposed 24 hour voyage duration threshold to require crew accommodation (excluding toilets and washbasins)

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
New passenger and non-passenger ships on voyages of more than 24 but less than 36 hours	A number of ships will not be impacted as they will have these facilities regardless	Impact depends on number of crew and whether facilities would have been provided regardless.	Medium
New passenger and non-passenger vessels of less than 12 metres on voyages of more than 24 hours		Majority vessels have 1 – 3 crew, cost impact \$0 - \$60,000	
Additional benefits of the preferred option compared to taking no action			
Crew on new passenger and non-passenger vessels	Improved crew wellbeing from access to rest, sleeping, and food preparation facilities,	Low	Medium

Crew and passengers on new passenger and non-passenger vessels	Reduced crew fatigue decreases risk of safety incidents	Medium	Medium
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Questions:

A 2.1 Do you agree that voyages of 24 hours or more should be the threshold for when crew accommodation (excluding toilets and washbasins) should be required?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

A 2.2 Are there other factors (such as crew size, work patterns, or operating area) that should be considered when determining when crew accommodation is required? Why?

A2.3 Are there vessel types that should have different thresholds? Why?

Proposal 3: Heights of safety barriers on passenger vessels

What we are proposing

Minimum barrier height of one metre

We propose a minimum height of safety barriers (bulwarks, guardrails, courses of taut wire) on passenger vessels of one metre.

This requirement would not apply to existing vessels and would be subject to the exceptions in Proposal 4 and exceptions for smaller vessels discussed below.

Exception for vessels of less than 12 metres in enclosed waters

Lower safety rails would be permitted on a vessel if it:

- is less than 12 metres in length; and
- operates within enclosed water limits; and
- a surveyor is satisfied that safety alternatives – such as handrails, centreline rails, electronic man-overboard devices, or controls on passenger access to exposed decks – provide a sufficient level of protection against risks associated with slipping or falling overboard.

Status quo

Rules Part 40A currently requires that bulwarks or fixed guardrails must be fitted near the edge of every exposed deck to which passengers and crew have normal access and be of the heights specified below.

Length overall of ship	Minimum height
20 metres or more	1000 mm
16 metres or more but less than 20 metres	850 mm
10 metres or more but less than 16 metres	750 mm
less than 10 metres	To be determined by surveyor in each case having regard to the safety of the passengers and crew.

What is the problem / rationale for the change?

There are several problems with the status quo:

- **Length is a poor threshold:** The risk of falling overboard on passenger vessels is not closely linked to vessel length. It is driven more by factors such as vessel motion, weather, deck layout, and passenger behaviour.
- **Barrier height and fall risk:** Barriers at or below waist height are less effective at preventing people from tipping or falling over, particularly when the vessel moves, decks are wet, or passengers stumble, lean, or crowd together.
- **Outdated assumptions and inconsistent standards:** New Zealanders are taller than when the barrier heights used in the current rules were first described. Low barriers are less effective for people who have a higher centre of gravity. Most comparable maritime jurisdictions and the New Zealand Building Code apply a minimum barrier height of one metre for comparable public-space risks.
- **Vessels under 10 metres:** For vessels under 10 metres, the rules do not specify a minimum height and allow a high level of surveyor discretion with little guidance. This creates uncertainty and inconsistent outcomes, particularly for new vessels.

The proposal to require a one-metre minimum barrier height for new passenger ships would improve fall protection and align requirements with modern safety expectations. It would retain flexibility for smaller vessels in enclosed waters with greater guidance for surveyors. Retrofit costs for existing vessels would be avoided by applying these changes only to new vessels.

Impact of the proposed change

Estimated incremental cost of increasing barrier height are below, and assume an additional guardrail is required along with slightly higher stanchions, wholesale steel costs of \$20 - \$40 and around one hour of labour for every two metres of open deck.

Vessel length band	Height increase	Typical open deck edge length	Additional new build cost
12.0–13.99 m	750 mm to 1000 mm	~14–16 m	\$900 – \$1300
14.0–15.99 m	750 to 1000 mm	~17–19 m	\$1200 – \$1700
16.0–17.99 m	850 mm to 1,000 mm	~20–22 m	\$1300 – \$1800
18.0–19.99 m	850 mm to 1,000 mm	~23–25 m	\$1400 – \$2000
20+ m	None	N/A	-

Options analysis

The following options were considered:

Option 1 (status quo): Retain the existing graduated heights of safety barriers.

Option 2 (preferred option): New passenger vessels would require safety barriers of at least 1 metre in height. There would be surveyor discretion to allow lower heights for smaller vessels in enclosed waters that have additional safety measures. Current requirements would continue to apply to existing vessels.

Option 3: The requirements in option 2 apply to all vessels, new and existing.

How the options compare with the status quo

The following criteria were used to assess the options:

Provides flexible and adaptive regulation:

The status quo and Option 3 are relatively inflexible. The status quo relies on fixed, length-based thresholds with broad but weakly guided discretion, while Option 3 applies new requirements uniformly to all vessels. Option 2 is more adaptive, as it lifts standards for new vessels while allowing clearly bounded surveyor discretion for smaller vessels in lower-risk enclosed waters.

Rules that are clear and easier to understand and apply:

The status quo is complex, with multiple height thresholds and significant reliance on discretion, particularly for smaller vessels. Options 2 and 3 improve clarity by introducing a single minimum barrier height of one metre, with clear guidelines for when exceptions can be granted for smaller vessels.

Maritime safety is maintained or enhanced:

Options 2 and 3 both enhance safety by setting a higher minimum barrier height that better reflects contemporary expectations for fall prevention. Option 3 delivers faster safety uplift across the fleet, while Option 2 improves safety progressively as new vessels enter service.

Changes are practical and economically viable:

The status quo avoids new costs. Option 2 creates costs but only for new vessels, which is much less costly than retrofitting. Option 3 is much less practical and economically viable due to retrofit costs and disruptions.

Table 5: Comparing options against the status quo. Heights of safety barriers on passenger ships

	1. Status Quo	2: New vessel safety barriers at least 1 metre in height. Bounded surveyor discretion for smaller vessels in enclosed waters	3. The requirements in 2 apply to both new and existing vessels
Provides flexible and adaptive regulation	0	0	-
Rules that are clear and easier to understand and apply	0	++	++
Maritime safety is maintained or enhanced	0	+	++
Changes are practical and economically viable	0	-	--
Overall assessment	0	++	+
Key for qualitative judgements: ++ Much better than doing nothing/the status quo/counterfactual + Better than doing nothing/the status quo/counterfactual 0 About the same as doing nothing/the status quo/counterfactual - Worse than doing nothing/the status quo/counterfactual -- Much worse than doing nothing /the status quo/counterfactual			
Preferred Option Option 2 is the preferred option. It incrementally raises safety standards without requiring costly retrofits of existing vessels, and improves regulatory clarity by setting clear boundaries for the use of discretion while maintaining flexibility for smaller, lower-risk vessels.			

What are the marginal benefits and costs of the preferred option?

Table 6: Marginal costs and benefits of proposed minimum safety barrier height on new passenger vessels

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Owners and operators of new passenger ships.	Many would be designed with higher safety barriers without change. Costs minimised by incorporating at design stage.	\$0 - \$7,000 depending on voluntary compliance, type of barrier, vessel length, length of open decks.	Medium
Additional benefits of the preferred option compared to taking no action			
Passengers on new ships.	Higher barriers provide more effective physical protection.	Improved passenger safety outcomes.	Medium

Questions

- A 3.1 Do you agree with introducing a minimum safety-barrier height of one metre for new passenger vessels?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 3.2 Do you agree that the proposed exceptions for smaller vessels in enclosed waters appropriate, or should the criteria for allowing lower barriers be changed?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why

Proposal 4: Lower or no safety barriers if normal operations would be impeded

What we are proposing

The current rules allow lower or no safety barriers where the prescribed height would impede normal operations and specified conditions are met.

We propose to rationalise these provisions and make them more transparent. Where used, the surveyor would be required to record the additional safety measures on the vessel's certificate of survey.

Lower safety barriers

Safety barriers would be able to be reduced to 600 millimetres if the height normally required would impede the normal operations of the vessel, subject to the following conditions:

- The deck would require a slip-resistant surface (If physical fall protection is reduced, the walking surface needs to reduce the likelihood of a fall)
- A readily available means of reboarding the vessel would need to be provided. (If falls do occur, recovery needs to be achievable)
- If the vessel carries passengers and proceeds beyond restricted limits, then fixed seating would need to be provided for all passengers
- The surveyor would be able to determine any other measures they consider necessary to prevent people falling overboard or reduce the impact of falls.

No safety barriers

No safety barriers would be allowed if the lower level of safety barrier (above) would impede the normal operation of the vessel, subject to:

- All of the additional measures required for a lower-than-normal safety barrier (as described above) are in place
- In addition, the surveyor must require one or more of the following measures that they consider necessary to reduce the risk of falls in the absence of safety barriers:
 - Toe rails at least 25 millimetres high or a continuous wire 25 millimetres above the deck fitted around the perimeter of the deck
 - A safety harness and safety line for every person who requires access to the exposed deck
 - If the ship is proceeding beyond restricted limits, all persons would need to wear personal AIS MOB alert beacons while on an open deck
 - A person accessing the deck would need to always wear a lifejacket while on deck
 - Any other measures determined by a surveyor to be necessary to reduce the likelihood of falling overboard or to reduce the impact of falls.

Existing vessels

Current arrangements for existing vessels would continue, provided the surveyor records on the vessel's certificate of survey the compensating safety measures relied on to manage the risk of slips or falls.

Vessels engaged solely in recreational fishing

The current rules allow vessels engaged only in recreational fishing excursions that have no more than 12 passengers to have bulwarks and guardrails of no less than 850 millimetres. We propose removing this for new vessels and instead have any reduction in height assessed under the exceptions proposed above.

Status quo

Allowing lower safety barriers

	Threshold	Conditions / specifications
Passenger and non-passenger vessels (40A and 40C)	If a surveyor considers a lesser height to be safe.	None specified.
Fishing vessels (40D)	Where the prescribed heights would interfere with the normal fishing operations of the vessel, a lesser height may be approved by the surveyor.	A reduction in height is not permitted in way of wheelhouse and deckhouse doors; and A fixed bulwark must not be less than 450 mm in height.
Sailing vessels (40E)	If a surveyor is satisfied that compliance with paragraph (a) would impede the proper working of the vessels.	Bulwarks or courses of wire at 600 millimetres.

Allowing safety barriers to be absent

	Threshold	Conditions
Passenger and non-passenger vessels (40A and 40C)	Because of special circumstances the fitting of guardrails and bulwarks is impracticable.	A surveyor may permit the omission if adequate grab rails, toe rails and safe footing are provided.
Fishing vessels (40D)	A bulwark or guardrail would impede the safe navigation of the vessel.	Other means of protecting the safety of the crew may be used.
Sailing ships (40E)	A surveyor is satisfied that it would be impractical for a ship to have safety barriers	Fixed or portable jackstays to enable any person, wearing a safety harness, to traverse the length of the exposed deck without unclipping it.

What is the problem / rationale for the change?

Alternative safety measures may be insufficient

For both passenger and non-passenger ships (40A and 40C), the current alternative safety measures may be insufficient:

- Where reduced heights are allowed there is no requirement to apply alternative controls. The sole test is whether a surveyor considers the lesser height to be safe.
- Where barriers may be omitted entirely, the only requirement is the provision of toe rails, grab rails, or safe footing. Depending on vessel characteristics and operating area, these measures may be inadequate alone to minimise all risk.

These shortcomings are a particular concern for passenger vessels, as passengers are untrained and have varying levels of knowledge and physical competence.

Heavy reliance on discretion with limited guidance

The current rules allow high levels of surveyor discretion, but they:

- Provide limited guidance to support consistent and risk-based decision-making
- Rely on undefined, subjective concepts such as “satisfied”, “impracticable”, and whether a reduced height is “safe”.

Inconsistent outcomes and reduced predictability

Decisions that depend on surveyor judgement are likely to reflect the subjective risk tolerance of individual surveyors rather than a shared regulatory standard. Similar vessels and similar operating contexts may be treated differently, reducing predictability and consistency across the regulatory system.

Low transparency and weak enforceability

The rules do not currently require surveyors to document when exceptions to barrier rules are allowed, or the conditions that apply. This may result in:

- Uncertainty for operators about what conditions apply and when.
- Exceptions being treated as permanent entitlements rather than conditional allowances.
- Difficulty determining non-compliance, both during operations and in post-incident investigations, or when an operator changes surveyor.

Case for clearer and more consistent rules

The proposal would address these concerns by introducing consistent requirements across vessel types, clearer guidance on the exercise of discretion and acceptable alternative safety measures, and a requirement to document the basis for any exceptions.

Impact of the proposed change

The proposed change would improve clarity and consistency by clearly defining when alternative approaches to standard requirements may be acceptable and how they should be

assessed. This supports a transparent, risk-based application of the rules while maintaining a clear focus on safe outcomes.

For new vessels, the proposal would provide greater certainty for designers and surveyors by clarifying how equivalent safety outcomes may be achieved where prescriptive requirements are not appropriate, supporting vessel-specific solutions without undermining safety intent.

For existing vessels, the proposal largely reflects current practice but strengthens transparency by requiring that any reliance on alternative measures or exceptions is clearly recorded as part of the survey and approval process. This supports consistency over time and ensures that decisions and their rationale are clear to owners and operators.

Overall, the proposal is expected to reduce ambiguity, improve confidence in regulatory decisions, and support safer and more predictable outcomes.

Analysis of options

What options are being considered

Three options are being considered:

Option 1 (status quo): The current rules continue to apply.

Option 2: Wide surveyor discretion to allow lower of no safety barriers if they determine it interferes with normal operations of the ship, no other specific constraints.

Option 3 (preferred option): Focused surveyor discretion to allow lower or no safety barriers provided.

How the options compare with the status quo

The following criteria were used to assess the options:

Provides flexible and adaptive regulation:

The status quo allows a high level of unchecked surveyor discretion, which would increase under Option 2. Option 3 is adaptive because it would retain discretion but introduce more controls.

Rules that are clear and easier to understand and apply:

The status quo performs poorly, relying on vague concepts to guide discretion. Option 2 would marginally improve on Option 1 by setting a threshold (interferes with normal operations) that would apply across all vessel types but would retain significant discretion without guidance.

Option 3 would set clear thresholds and conditions that are significantly easier to understand and apply.

Maritime safety is maintained or enhanced:

The status quo requires few additional safety measures to compensate for lower/no safety rails. Option 2 would be only marginally better, as safety outcomes would depend largely on individual judgement. Option 3 would enhance safety by

ensuring that reductions in barrier height are offset by measures that mitigate risk.

Changes are practical and economically viable:

The status quo avoids new compliance costs but creates uncertainty and inconsistent outcomes. Option 2 would avoid prescribed costs but could increase transaction costs due to unclear expectations. Option 3 is practical and economically viable because it would not require retrofitting, would allow operationally appropriate alternatives, and would provide greater certainty for designers, operators, and surveyors.

Table 7: Comparing options against the status quo. Lower or no safety barriers if normal operations impeded

	1. Status Quo	2: Wide surveyor discretion	3. Focused surveyor discretion
Provides flexible and adaptive regulation	0	+	+
Rules that are clear and easier to understand and apply	0	+	++
Maritime safety is maintained or enhanced	0	+	++
Changes are practical and economically viable	0	-	+
Overall assessment	0	+	++

Key for qualitative judgements:

- ++** Much better than doing nothing/the status quo/counterfactual
- +** Better than doing nothing/the status quo/counterfactual
- 0** About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred Option

Option 3 is the preferred option. It sets clear thresholds and conditions that are significantly easier to understand and which enhance safety by ensuring reductions in barrier heights are offset by measures that mitigate risks. Expensive retrofits are avoided.

What are the marginal costs and benefits of the proposed option

Table 8: Marginal costs and benefits of proposed requirements for when lower or no safety barriers are allowed if normal operations impeded

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Owners and operators of new vessels seeking lower or no safety barriers	Additional safety measures (e.g. reboarding arrangements, slip-resistant surfaces, personal AIS devices, documentation of conditions) may be required	Low. Costs are generally modest and applied only where standard barriers are reduced or removed	Medium
Owners/operators of existing vessels relying on current arrangements	Requirement to document existing alternative measures on certificate of survey	Low. Primarily administrative; does not require retrofit	High
Additional benefits of the preferred option compared to taking no action			
Passengers and crew on vessels with reduced or no barriers	Alternative safety measures required, improving protection against slips, falls, and overboard incidents	Medium. Benefits depend on operating context and implementation of measures	Medium
Owners and operators of new vessels	Clearer expectations and criteria for when lower or no barriers are acceptable reduces ambiguity and inconsistency	Medium. Improved predictability and reduced design uncertainty	High

Questions

- A 4.1 Do you agree with the proposed framework for allowing lower or no safety barriers where normal vessel operations would be impeded?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 4.2 Do you agree that the proposed alternative safety measures and documentation requirements sufficient to provide confidence that risks are being appropriately managed?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

Proposal 5: Measures to protect children from falling

What we are proposing

This proposal would introduce two new requirements for safety barriers or decks where children under 12 years of age are permitted access:

- Any gap below the top of the safety barrier would need to be small enough to stop the passage of a sphere with a diameter greater than 125 millimetres; and
- Barriers would not be able to have gaps that could serve as footholds at heights between 150 and 760 millimetres.

The proposal would not apply to existing vessels.

The available evidence does not currently support a clear assessment of the safety benefits and costs of this proposal. We are seeking stakeholder input to inform our final decisions.

Status quo

The rules currently have no measures specifically targeting child fall risks.

What is the problem / rationale for the change?

Risk of children being swept overboard through gaps in safety barriers

Current safety barrier requirements are primarily designed to prevent adults from falling or being washed overboard and do not explicitly account for the smaller bodies of infants and young children.

The proposed limit on gaps (125 mm sphere) reflects the average head-breadth of infants and toddlers. Comparable requirements apply in other regulatory contexts. For example:

- Australia's National Standard for Commercial Vessels (NSCV) prohibits passenger-accessible decks having barriers a 125 mm sphere could pass through
- In the United States, small ferry and excursion vessels limit openings to approximately 100 mm, using chain-link fencing, wire mesh, or similar arrangements.
- Land-based building regulations in both New Zealand and Australia include similar controls to prevent children passing through balcony, deck, and stairway barriers.

Risk of children climbing and falling

Current rules allow safety barriers with features that children could climb, increasing the risk of falling overboard.

The proposed restriction on climbable features between 150 mm and 760 mm above deck level would reduce this risk and aligns with land-based building standards (the New Zealand Building Code Acceptable Solution F4/AS1 includes measures to prevent climbing in areas likely to be used by children under 6 years of age).

Discussion

Falls from commercial passenger vessels are not uncommon, but reported incidents involving children are rare. It is worth noting that limited domestic data does not necessarily mean the underlying risk is low, because New Zealand has a relatively small population and small number of commercial vessels carrying passengers. Maritime rules overseas and New Zealand's land-based building standards provide useful points of comparison. These indicate that the risks have been considered significant enough to regulate.

However, mitigating factors may lessen the need to impose design requirements:

- Unlike buildings (especially residential), young children do not generally spend prolonged periods on commercial vessels.
- Young children on commercial vessels are typically supervised by a parent or guardian. Unsafe behaviour can usually be quickly identified and addressed.
- Access to deck spaces can be controlled, for example by signage.
- Very young children may lack the strength to navigate self-closing doors providing access to decks or have difficulty navigating exterior door sill heights.

Impact of the proposed change

Many passenger vessels are constructed with solid bulwarks and would not require anything additional to comply with these proposed requirements.

For vessels with guardrails the most cost-effective way to meet both proposed requirements would be through the installation of fine marine grade welded wire mesh infill between rails. This can be obtained for around \$30 - \$40. With labour added, cost estimates are in the tables below.

Higher-quality mesh products are also available and may be preferred in practice, but come at higher costs.

Vessel length	Assumed passenger accessible deck length	Additional cost
5 m – 15 m	6 m – 12 m	\$600 – \$900
15 m – 25 m	12 m – 25 m	\$1300 – \$2000
25 m – 35 m	25 m – 40 m	\$2400 – \$3200

Options analysis

Three options are being considered:

Option 1 (Status quo): No specific measures to prevent children from climbing or falling through barriers.

Option 2: Measures to prevent children from climbing or falling through barriers on new passenger vessels.

Option 3: Measures to prevent children from climbing and falling through barriers on all passenger vessels (new and existing).

How the options compare with the status quo

The following criteria were used to assess the options:

Provides flexible and adaptive regulation:

The status quo is flexible in the sense that it sets a minimum standard that does not prevent owners and operators from fitting barriers that increase safety for children. However, it is not adaptive as it does not address potential safety risks. Option 2 and Option 3 are both inflexible because they would prescribe requirements, but would both be adaptive in responding to risk.

Rules that are clear and easier to understand and apply:

Requiring or not requiring measures to prevent children from climbing or falling overboard are equally clear.

Maritime safety is maintained or enhanced:

Options 2 and 3 may offer some safety improvements. Note that the evidence of incidents is limited. However, both options could prevent serious harm or deaths.

Changes are practical and economically viable:

The status quo avoids new costs. Option 2 could add costs for some new vessels, by requiring barriers with smaller openings and no toe holds. Option 3 would be less practical and economically viable as existing vessels would require retrofitting and face disruptions.

Table 9: Comparing options against the status quo. Measures to stop children from falling.

	1. Status Quo	2. Measures to prevent children climbing or falling for new vessels only	3. Measures to prevent children climbing or falling for new and existing vessels
Provides flexible and adaptive regulation	0	+	+

Rules that are clear and easier to understand and apply	0	0	0
Maritime safety is maintained or enhanced	0	+	+
Changes are practical and economically viable	0	+	-
Overall assessment	0	+	0

Key for qualitative judgements:

- ++ Much better than doing nothing/the status quo/counterfactual
- + Better than doing nothing/the status quo/counterfactual
- 0 About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred Option

Our analysis indicates that the status quo and option 2 are evenly balanced but both are superior to option 3 due to retrofit costs. We consider the safety benefits of option 2 to be modest, as are the costs for new vessels.

What are the marginal costs and benefits of the preferred option

Table 10: Marginal costs and benefits of proposed requirements to stop children from falling

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Owners and operators of new passenger vessels	Many new vessels will comply at zero or near zero cost as new vessels often designed in this way already.	Low in comparison to overall new build costs	Medium
Additional benefits of the preferred option compared to taking no action			
Operators of new passenger vessels carrying children	Additional design constraints in child accessible areas	Potential incremental safety improvement for children	Low–Medium

Questions

- A 5.1 Do you agree that additional safety-barrier measures are needed to reduce risks of children on passenger vessels falling or being swept overboard?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

Proposal 6: Harmonisation of personal safety requirements

What we are proposing

New vessels

We propose harmonising personal safety provisions by introducing consistent requirements that would:

- Permit taut wire courses to be used as safety barriers (alongside bulwarks and guardrails)
- Require guardrails and taut wire to be supported at intervals of no more than 2.2 metres
- Require taut wire safety barriers to consist of three courses
- Require guardrails on cockpits opening aft to sea so that no vertical gap exceeds 380 mm
- Require storm rails or hand grabs where a surveyor considers them necessary to ensure safe movement in passageways, along deckhouse sides, and at ladders and hatches

Some rules are not harmonised where ship type relevant safety or operational factors justify retaining different requirements (e.g. jackstays, lines and harnesses for sailing ships, alternatives to safety barriers on inflatable and rigid hull inflatable boats).

Existing vessels

Existing vessels would not be required to comply with these changes, provided that a surveyor is satisfied that existing arrangements are safe and fit for purpose.

Taut wire

We welcome submitter views on whether there are any safety considerations with allowing taut wire more widely than sailing ships, and whether there should be conditions imposed to address these.

Status quo

The table below summarises current requirements by vessel type

	40A	40C	40D	40E
Allowing taut wire	Not allowed	Not allowed	Not allowed	Allowed
Intervals of 2.2 m	No minimum	No minimum	1.5 m intervals	2.2 m
Three courses of guardrails/ taut wire	Not required	Not required	Not required	Required

Gaps in cockpit opening aft to sea ≤ 380 mm	Not required	Maximum gap of 500 mm	Not a current requirement	Required
Storm rails or hand grabs if necessary for safe movement	Required	Required	For deckhouse and casings only	Not required

What is the problem / rationale for the change?

The differences across vessel types above are relatively small but lead to inconsistent outcomes for vessels with similar layouts, risks, and operating profiles.

In many cases, the variations do not reflect clear differences in safety risk. This can result in different requirements applying to vessels undertaking similar activities, creating regulatory inconsistency and complexity for designers, builders, surveyors, and operators.

The fragmented framework also limits the ability of the rules to promote consistent minimum safety outcomes, particularly for new vessels, and increases reliance on vessel-specific interpretation rather than clear, shared standards.

Harmonising requirements for new vessels improves consistency and clarity, improves safety while avoiding unnecessary impacts on the existing fleet. Surveyor discretion for existing ships ensures any changes are practical and pragmatic, avoiding retrofits.

Impact of the proposed change

Overall, harmonising improves clarity, consistency, and predictability, while supporting safer new vessel design without creating excessive costs for existing vessels.

High level benefits for vessels that each element are extended to include:

- **Allowing taut wire safety barriers:** Increases design flexibility and may result in modest upfront cost savings⁷
- **Consistent spacing of safety-barrier supports (≤ 2.2 m):** Improves strength and reliability of guardrails and taut wire by ensuring loads are more evenly distributed, reducing risk of failure and people slipping or falling overboard.
- **Requiring three courses of guardrails or taut wire:** Reduces risk of falling or being swept beneath or through safety barriers.
- **Limiting gaps in cockpits opening aft to the sea:** Reduces risk of people being knocked or washed out of the cockpit
- **Extending surveyor discretion to require storm rail and hand-grab requirements:** Improves safety when moving around vessels, especially in adverse weather or heavy motion.

⁷ There are modest ongoing maintenance costs, for instance ensuring that taut wire remains tensive

High-level cost estimates for new vessels are summarised in the table of Appendix 2.

Options analysis

What options are being considered

Three options are being considered:

Option 1 (status quo): Retain differences across vessel types.

Option 2: Harmonised rules, applied to new and existing vessels.

Option 3 (preferred option): Harmonised rules, but with bounded surveyor discretion for existing vessels where change would be impractical or costly.

Provides flexible and adaptive regulation:

Option 2 is less flexible than the status quo, as it applies harmonised requirements to both new and existing vessels, with no ability to retain or recognise differences between vessel types, designs, or operating profiles where this would be reasonable or justified.

Option 3 is more flexible and adaptive, as it retains limited, targeted differences where justified by risk or vessel operations, and provides flexibility for existing vessels.

Rules that are clear and easier to understand and apply:

Both Option 2 and Option 3 are clearer and easier to apply than the status quo. They replace small but material differences across Rules Parts with a more coherent and largely harmonised set of personal safety requirements, improving consistency and reducing complexity for designers, surveyors, and operators.

Maritime safety is maintained or enhanced:

Option 2 enhances safety relative to the status quo by applying consistent minimum personal safety requirements across the fleet.

Option 3 also enhances safety relative to the status quo by strengthening and aligning requirements for new vessels, while allowing limited differentiation where risk profiles or vessel operations justify this, and avoiding unnecessary or impracticable changes to existing vessels.

Changes are practical and economically viable:

Option 2 is less practical and economically viable than the status quo, as applying harmonised requirements to existing vessels may require structural modifications with disproportionate costs.

Option 3 is more practical and economically viable, as requirements apply primarily at the design and build stage for new vessels, while avoiding retrofit impacts on the existing fleet and allowing justified variation based on vessel operations.

Table 11: Comparing options against the status quo. Harmonising personal safety requirements

	1. Status Quo	2: Harmonised rules, applied to new and existing vessels	3. Harmonised rules, discretion for existing vessels
Provides flexible and adaptive regulation	0	-	+
Rules that are clear and easier to understand and apply	0	+	+
Maritime safety is maintained or enhanced	0	++	+
Changes are practical and economically viable	0	-	+
Overall assessment	0	+	++

Key for qualitative judgements:

- ++** Much better than doing nothing/the status quo/counterfactual
- +** Better than doing nothing/the status quo/counterfactual
- 0** About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred Option

Option 3 is the preferred option. It improves clarity by harmonising requirements across vessel types, improves safety incrementally through by requiring new vessels to meet higher standards, while not imposing costs on existing vessels.

What are the marginal costs and benefits of the preferred option

Table 12: Marginal costs and benefits of proposed harmonisation of personal safety requirements

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action⁸			
Operators of new passenger vessels	Incremental costs vary by vessel size and design;	~\$0 – \$6,000 per vessel, vessel length and status quo dependant	Medium. Unclear the extent to which new vessel design would already include these measures without being required.
Operators of new non-passenger vessels	Similar impacts to passenger vessels, lower due to no passenger access	~\$0 – \$6,000 per vessel, vessel length and status quo dependant	
Operators of new fishing vessels	Some increases from spacing and third-course requirements; many fishing vessels already exceed minimums	~\$0 – \$6,500 per vessel, vessel length and status quo dependant	
Operators of new sailing ships	Generally limited impact, as many requirements already align with existing sailing ship rules	~\$0 - \$2000	High
Additional benefits of the preferred option compared to taking no action			
Crew and passengers on new ships	Harmonisation measures either improve safety or are safety neutral	Low to Medium	High

Questions

A 6.1 Do you agree with harmonising personal safety requirements across vessel types for new vessels?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

A 6.2 Are there specific vessel types or operating contexts where retaining different requirements would be justified on safety or operational grounds?

⁸ Savings from use of taut wire are not included. There are advantages and disadvantages of using taut wire and only some operators will elect to use it.

[Answers: Yes; No; It depends]

Which vessels? Why?

- A6.3 Are there vessel types, sizes, or characteristics that taut wire is not suitable to use as a safety barrier?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Which vessels and why?

Proposal 7: Means of escape and watertight doors

What we are proposing

We propose that in spaces below the bulkhead deck at least one of the two required means of escape must not be through a watertight door. This is because people on board may not be able to exit through a watertight door in an emergency.

The proposal recognises that alterations to an existing vessel to achieve this proposal may be impractical. Where this is the case, an exception for existing vessels would be allowed, provided the following criteria are met:

- A surveyor would need to determine that meeting the requirement would be impracticable or would unduly interfere with the ship's operation; and
- The space would need to be a space that is rarely accessed; and
- It would need to be possible to operate the watertight door or hatch from both sides; and
- Crew would need to be trained in the operation of watertight doors.

Some operators of existing vessels use operational controls to mitigate escape risks associated with watertight doors. We are seeking information on those measures and their effectiveness.

Status quo

Currently, Rule Parts 40A, 40C, 40D and 40E do not require that, for spaces below the bulkhead deck, one of the two means of escape must not pass through a watertight door.

It is likely that some existing vessels already have at least one means of escape that is not through a watertight door, particularly newer or larger vessels. However, the extent to which this is the case across the commercial fleet is not known.

What is the problem / rationale for the change?

In spaces below the bulkhead deck, at least one means of escape should not rely on a watertight door or hatch. This is because watertight doors or hatches may close automatically or become inoperable during flooding or damage. An independent escape route ensures that personnel can evacuate safely even when the ship's watertight integrity is compromised.

The Transport Accident Investigation Commission (TAIC) discussed these risks in its report on the loss of the fishing vessel Jubilee and all hands. TAIC noted that it was very unlikely that crew would have been able to use the secondary means of escape from the wheelhouse as it required passing through multiple watertight hatches and compartments.⁹

⁹ <https://taic.org.nz/inquiry/mo-2015-203>

Although some newer vessels may already incorporate alternative escape routes, the absence of a clear requirement means that vessels may be designed without a reliable means of escape when watertight doors cannot be used.

Impact of the proposed change

The proposal reduces the risk of entrapment during flooding emergencies by reducing reliance on watertight doors or hatches as critical elements of emergency escape routes.

For new vessels, the proposal is expected to have little to no material cost impact, as compliance can typically be achieved through layout and escape-route design decisions made early in the design process. This is unlikely to result in additional structure or specialised equipment and represents a minor proportion of total build cost.

For existing vessels, the proposed change is expected to have limited cost impacts, as the exception would apply if compliance is impracticable or would unduly interfere with operations. In most cases, no structural modifications are anticipated. The impacts would mainly be limited to survey assessment and confirmation of crew training and door operability.

Options analysis

What options were considered

Option 1 (status quo): No restrictions on both means of escape through watertight doors.

Option 2: All vessels (new and existing) would require at least one means of escape that does not pass through a watertight door.

Option 3 (preferred option): New vessels would require at least one means of escape that does not pass through a watertight door. For existing vessels, an exception would apply if a surveyor has determined that meeting the requirement is impracticable, the space is rarely used, the watertight door or hatch can be operated from both sides, and crew are trained in the operation of watertight doors.

Provides flexible and adaptive regulation:

Option 2 is inflexible as it would create a requirement for all ships without providing flexibility for existing ships for which retrofit costs could be prohibitive. Option 3 provides flexible alternatives for existing ships to avoid this.

Rules that are clear and easier to understand and apply:

Option 1 is silent on whether escape routes may rely on watertight doors, which may create a misleading sense of safety and provides no clear guidance to designers, builders, or surveyors. Under options 2 and 3 the rules would be very clear.

Option 2 would provide clarity by applying a single, unqualified requirement across the fleet, but could be difficult to apply consistently where physical constraints limit compliance.

Option 3 clearly establishes the principle that at least one escape route should avoid reliance on a watertight door, while setting out explicit conditions under which existing vessels may

	rely on an exception. This provides clarity while recognising practical limitations.
Maritime safety is maintained or enhanced:	Under Option 1, safety outcomes depend on individual vessel design and circumstance, with no assurance that an escape route is viable in flooding or damage scenarios. Option 2 would ensure safety. Option 3 would incrementally improve safety by raising standards for new vessels and providing practical solutions to reduce risk for existing vessels.
Changes are practical and economically viable:	Option 1 would create no cost. Option 2 would create potentially large retrofit costs. Option 3 would apply a balanced approach by applying to new vessels and providing practical alternatives for existing vessels.

Table 13: Comparing options against the status quo. Means of escape and watertight doors

	1. Status Quo	2. All vessels must have at least one means of escape that does not pass through a watertight door.	3. New vessels must have at least one escape route that does not pass through a watertight door. Exceptions for vessels if impracticable and appropriate safeguards are in place.
Provides flexible and adaptive regulation	0	-	+
Rules that are clear and easier to understand and apply	0	++	++
Maritime safety is maintained or enhanced	0	++	+
Changes are practical and economically viable	0	-	+
Overall assessment	0	+	++

Key for qualitative judgements:

++	Much better than doing nothing/the status quo/counterfactual
+	Better than doing nothing/the status quo/counterfactual
0	About the same as doing nothing/the status quo/counterfactual
-	Worse than doing nothing/the status quo/counterfactual
--	Much worse than doing nothing /the status quo/counterfactual

Preferred option

Option 3 is the preferred option. The requirements would be very clear and would incrementally improve the safety of the domestic commercial fleet over time while providing flexibility for existing vessels to avoid costly retrofits.

What are the marginal costs and benefits of the preferred option?

Table 14: Marginal costs and benefits of proposed requirements for means of escape and watertight doors

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Owners of new vessels	Increased design and build costs	Usually met at no to low cost at design stage but exceptions are possible	Medium
Additional benefits of the preferred option compared to taking no action			
Passengers and crew on new vessels	Reduced reliance on watertight doors during emergencies	Improved survivability in flooding scenarios	Medium

Questions

- A 7.1 Do you agree that new ships should not have both means of escape from a space being through a watertight door?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 7.2 Are the proposed exception criteria for existing vessels appropriate and workable in practice? If not, what changes would you suggest?

[Answers: Yes; No; It depends]

Why/why not?

- A7.3 Are you aware of operators who have other practices in place to mitigate escape risks associated with watertight doors? How effective are these?

Proposal 8: Exceptions to requirements to have two means of escape

What we are proposing

We propose a consistent set of criteria across vessel types for applying exceptions to the requirement that a space must have two means of escape.

The table below summarises the key elements of the proposal.

We are proposing that these criteria would apply to new and existing vessels, but this is something that we are interested in receiving stakeholder feedback on.

Space type	When a second means of escape is not required
Accommodation spaces	A second means of escape would not be required where all of the following conditions are met: – The space accommodates no more than 6 passengers or 8 persons in total – The space is not a moderate fire hazard area or a major fire hazard area – The primary means of access does not: – pass through a watertight door – lead to a space without direct access to an open deck – lead to a moderate or major fire hazard area – the horizontal travel distance to a point of safety, measured from the furthest point in the space, does not exceed: – 5 metres for passenger accommodation – 7 metres for crew accommodation
Operational workspaces	– A second means of escape would not be required where all of the following conditions are met: – The space is not normally occupied – The horizontal travel distance to a point of safety, measured from the furthest point in the space, does not exceed 5 metres – The primary means of access does not lead to a moderate or major fire hazard area – The primary means of access does not pass through a watertight door

- The primary means of access does not lead to a space without direct access to an open deck.

Status Quo

Current exceptions to two means of escape vary by vessel type and the type of space:

Passenger vessels (Part 40A) and non-passenger vessels (Part 40C)

- There are no exceptions for crew accommodation.
- For machinery spaces of Category A, a surveyor may permit a single means of escape if it does not lead to other areas of major fire hazard and the space is an unmanned machinery space not exceeding 5 metres in length.
- An exception exists for means of escape from passenger accommodation that matches the proposed requirements in the table above - refer 40A.19(6)(c).

Fishing vessels (Part 40D). Exceptions vary somewhat depending on vessel length and age, but in general:

- A surveyor may permit a single means of escape from accommodation spaces and machinery spaces that are not of category A, after considering the nature and location of the spaces and the number of people who are normally accommodated or employed there
- For some vessels, a surveyor may allow a single means of escape from a machinery space of category A if they consider two means of escape impractical due to the size of the space.

Sailing vessels (Part 40E)

- Less than 24 metres in length: A single means of escape from a space not used for sleeping or rest may be allowed if, in the opinion of a surveyor, the space is not at risk from fire and there are smoke detectors sufficient to give early warning of a fire that could cut off the single means of escape. There are no exceptions for other spaces.
- 24 metres or more in length: There are no exceptions.

What is the problem / rationale for change

The current rules include multiple, vessel-specific exceptions to the requirement to have two means of escape. While these exceptions are broadly similar in intent and motivation (allowing flexibility for small, low-risk, or infrequently occupied spaces), their coverage is incomplete, fragmented, and inconsistent, and the rules provide limited guidance on how surveyor discretion should be applied.

Incomplete coverage

For some spaces on some vessels (e.g. crew accommodation under Part 40A and 40C) the rules allow no flexibility at all, regardless of factors such as the size of the space, the number of people using it, or the distance to a point of safety.

Fragmentation and inconsistency

The current provisions were, in most cases, developed independently and at different times. This fragmentation has led to ships with similar layouts, levels of risk, and patterns of use being subject to different requirements.

Poorly defined discretion

Many of the existing exceptions rely on surveyor discretion, but include limited guidance on how this should be applied. This can result in:

- Discretion being exercised in ways that do not align with the original policy intent;
- different outcomes for similar ships and spaces;
- uncertainty for designers and operators at the design or refit stage; and
- reduced transparency about how safety decisions are reached.

Impact of the proposed change

Replacing the range of existing, vessel-specific exceptions with a targeted framework that applies consistently across vessel types would:

- Improve consistency and clarity by applying the same exception criteria to similar spaces, regardless of vessel type
- Better align escape requirements with actual levels of risk, rather than vessel category alone
- Reduce reliance on broad or loosely defined discretionary provisions
- Provide greater certainty and predictability for designers, owners, and operators, particularly at the design and refit stage.

For new vessels, the proposal is expected to have little to no cost impact, as it does not introduce additional physical requirements. Instead, it provides clearer guidance on when a second means of escape is necessary, which may avoid unnecessary or over-engineered escape arrangements in small or low-risk spaces, particularly for vessels where exceptions are not currently available.

For existing vessels, we anticipate that the exercise of surveyor discretion under the current rules generally aligns with the proposed exceptions, and that any discrepancies are rare. Where differences do arise, an exemption application demonstrating other effective safety measures may be required.

We are particularly interested in hearing from stakeholders and surveyors about whether the proposed framework would meet the range of situations they deal with, or whether additional conditions are needed.

Options analysis

Three options have been considered:

Option 1 (status quo): Limited provisions for less than two means of escape that rely on surveyor discretion but provide limited guidance.

Option 2: A surveyor would have wide discretion to allow a single means of escape for any space provided that they consider it safe.

Option 3 (preferred option): Clearly stated criteria for when two means of escape may apply, applicable to any space on any ship.

How the options compare with the status quo

Provides flexible and adaptive regulation:

Option 1 provides flexibility but only for some vessels and in some spaces. Option 2 has extreme flexibility, while Option 3 provides wide flexibility subject to clear criteria being met.

Rules that are clear and easier to understand and apply:

Option 1 is very unclear because it has multiple inconsistent, vessel specific exceptions spread across Rule Parts with limited guidance for surveyors. Option 2 would provide little guidance on the exercise of discretion. Option 3 would provide a clear risk-based framework that would be easier for designers, surveyors and operators to understand and apply.

Maritime safety is maintained or enhanced:

Option 3 would set clear, risk-based criteria. The limited guidance and broad discretion available under Options 1 and 2 could potentially result in unsafe escape arrangements.

Changes are practical and economically viable:

Option 1 permits a single means of escape in limited circumstances, constraining otherwise safe and cost-efficient designs. Option 2 may enable cost-efficient designs, but uncertainty due to limited guidance may add cost to the design process. Option 3 would allow a single means of escape where defined criteria are met, supporting cost-efficient design with greater certainty.

Table 15: Comparing options against the status quo. Exceptions to the requirement for two means of escape

	1. Status Quo	2. Wide surveyor discretion if a surveyor considers a single means of escape safe	3. A space can have a single means of escape if clearly defined criteria are met
Provides flexible and adaptive regulation	0	++	+
Rules that are clear and easier to understand and apply	0	-	++
Maritime safety is maintained or enhanced	0	-	+

Changes are practical and economically viable	0	+	++
Overall assessment	0	+	++
Key for qualitative judgements:			
++ Much better than doing nothing/the status quo/counterfactual + Better than doing nothing/the status quo/counterfactual 0 About the same as doing nothing/the status quo/counterfactual - Worse than doing nothing/the status quo/counterfactual -- Much worse than doing nothing /the status quo/counterfactual			
Preferred option			
Option 3 is the preferred option. It enables cost-efficient design while ensuring maritime safety is maintained, has inherent flexibility and is very clear and easy to understand.			
What are the marginal costs and benefits of the preferred option?			
Table 16: Marginal costs and benefits of proposed exceptions to requirements for two means of escape			
Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Existing vessel operators	Most existing discretionary decisions expected to align	Limited marginal impact; exemptions may be needed in rare cases – scale uncertain	Low–Medium
Additional costs of the preferred option compared to taking no action			
Owners, designers and builders of new vessels where rules currently do not allow exceptions	Avoids unnecessary or over-engineered escape arrangements in small or low-risk spaces	Reduced design and build costs	Medium
Owners, designers and builders of new vessels where rules currently allow exceptions	Explicit criteria makes it easier to understand and apply exceptions	Greater certainty reduces time interpreting vague exception requirements	Medium

Questions:

- A 8.1 Do you agree with replacing multiple vessel-specific exceptions with a single, risk-based framework for when a second means of escape is not required?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 8.2 Are the proposed exception criteria appropriate and workable in practice for existing vessels? Are there situations where the criteria would not work?

Proposal 9: Number and type of means of access and escape

What we are proposing

We propose that all areas on a ship that are accessible to passengers or crew would require two means of escape unless an exception applies (see Proposal 8, above). This is generally the case under the current rules.

The two means of escape would be comprised of:

A primary means of access.	This is the normal way that people move in and out of a space. It is designed to provide convenient, efficient, and reliable movement.
An alternative means of escape.	This may serve as a complement to the primary means of access, but is designed for emergency use (e.g. fire, smoke, flooding, loss of light) where the primary means of access may be unavailable. It is designed to provide redundancy rather than convenience.

The types of access and escape would differentiate between the type of space:

Accommodation spaces	May include passengers unfamiliar with the ship, or people who are sleeping or resting and may be fatigued or disoriented in an emergency.
Operational workspaces	Spaces where trained crew are present who are familiar with the ship and means of escape and are alert and on duty while there.

The types of access and escape would also differentiate between the numbers of occupants:

Spaces permitted to have more than 12 occupants	Larger numbers of people require more robust escape routes.
Spaces permitted to have up to 12 occupants	Less robust means of escape are required when fewer people are likely to rely on them.

The types of escape depending on each of these are summarised in the table below.

Primary means of access

Space type	Capacity (persons)	Permitted primary means of access
Accommodation space	Any	Doorway; passageway; corridor; stairway; walkway
Operational workspace	> 12 crew	Doorway; passageway; corridor; stairway; walkway
Operational workspace	≤ 12 persons	Doorway; passageway; corridor; stairway; walkway; fixed step ladder; fixed rung ladder

Alternative means of escape

Space type	Capacity (persons)	Permitted alternative means of escape
Accommodation space	> 12	Doorway; passageway; corridor; stairway; walkway; fixed step ladder*; fixed ladder*
Accommodation space	≤ 12	Doorway; passageway; corridor; stairway; walkway; fixed step ladder*; fixed ladder*; escape hatch; sliding window; pop-out window; breakable window
Operational workspace	> 12 persons	Same as accommodation space > 12
Operational workspace	≤ 12 persons	Same as accommodation space ≤ 12

* Fixed ladders (step or rung) would only be permitted where the space is not permitted to accommodate passengers.

Exceptions for existing sailing ships

The current rules for spaces in sailing ships of less than 24 metres in length are more specific than for other ship types (except for passenger ships). These existing differences would be retained under this proposal for existing. We would be interested in submitters views as to whether these differences should also be extended to new sailing ships and why.

Status Quo

Currently, the most detailed requirements for access and escape are for passenger accommodation in Rules Part 40A. The requirements in this Proposal are based on those provisions.

Other rules include varying and inconsistent requirements:

- Rule Parts 40A and 40C require at least two means of escape from all levels of crew accommodation but are silent as to what that means.
- Part 40D has mixed requirements:¹⁰
 - The means of escape are explicit for some crew accommodation spaces and consistent with these proposals (40D.51 and 40D.57). In other spaces the primary means of access is unclear (40D.62)
 - Means of access and escape from operational workspaces either require two steel ladders or a mixture of ladders and doors (40D.51 and 40D.57) or ladders and portholes/hatches.
- Part 40E includes some different requirements:
 - Stairways are required as the main means of escape from compartments accommodating more than 12 people, but ladders are allowed if there are up to 12 occupants
 - Alternative means of escape from accommodation spaces can be stairways, ladderways, hatches, or skylights.

What is the problem / rationale for change

Current requirements for means of access and escape across Rules Parts 40A, 40C, 40D, and 40E are fragmented and inconsistent. Requirements for passenger accommodation are comparatively well specified, but some other rules are vague or unevenly expressed. As a result:

- Similar spaces can be subject to different requirements based on vessel type rather than risk or use
- Key concepts (e.g. access, escape, normal access, ready egress) are used inconsistently, making the rules hard to interpret and apply

In several instances, rules require two means of escape without clearly distinguishing between:

- A primary means of access intended for everyday use
- An alternative means of escape intended to provide redundancy where the primary route is compromised (e.g. fire, smoke, flooding, or loss of lighting).

This lack of clarity increases reliance on custom practice and discretionary judgement, which can lead to inconsistent outcomes between otherwise comparable vessels.

In addition, the existing rules do not consistently account for:

- Differences between accommodation spaces (where occupants may be sleeping, fatigued, unfamiliar, or disoriented) and operational workspaces (where trained crew are alert and familiar with the vessel); or

¹⁰ There are slight differences based on vessel age and vessel length.

- The number of people relying on an escape route, with some higher-occupancy spaces permitted to have escape arrangements no more robust than those serving smaller groups.

Collectively, these issues reduce regulatory clarity and undermine consistent, risk-appropriate safety outcomes. A more structured and aligned approach is needed to clearly define access and escape expectations across vessel types, space use, and occupancy.

Impact of the proposed change

The proposed changes would improve clarity and consistency by clearly defining what constitutes appropriate primary and alternative means of access and escape, based on how a space is used and how many people it accommodates. This would support more consistent survey decisions and allow designers and builders to make risk-appropriate arrangements without relying on assumptions or custom. Over time, this may also improve safety outcomes.

Existing vessels should be largely unaffected by this Proposal:

- The requirements already apply to passenger accommodation, so passenger vessels should not be impacted
- Most other vessels (~95%) carry fewer than 13 people. Under this Proposal the spaces occupied by fewer than 13 people have a wide range of permitted means of access and escape available.

It is possible that a small number of existing vessels may not comply with this Proposal. We are interested in identifying the number and type of vessels that might be affected so that the Proposal can be revised if necessary. We welcome feedback on this.

Options analysis

What options were considered

Option 1 (status quo): Requirements would continue to be fragmented and differ by vessel type. Rules for the most part would provide little guidance as to what kind of access / escape to be used for different spaces.

Option 2 (preferred option): Rules are harmonised with specific requirements depending on the type of space, how it is used, and the number and type of people that might use the means of access / escape.

Option 3: Rules are harmonised to generally require two means of escape but provide high flexibility and little guidance as to the form a means of access / escape should take.

How the options compare with the status quo

Provides flexible and adaptive regulation:

The status quo is often flexible but infrequently adapts access and escape requirements to the space. Option 3 would provide high flexibility but little structure. Option 2 would provide some flexibility within a framework that adapts to the nature of the space and its occupants.

Rules that are clear and easier to understand and apply:

The status quo is inconsistent and difficult to interpret. Option 3 would improve alignment but offer limited guidance on acceptable solutions. Option 2 would harmonise requirements and clearly distinguish what means of access and escape are appropriate options for a given space.

Maritime safety is maintained or enhanced:

The status quo and Option 3 could result in inconsistent safety outcomes due to vague and uneven requirements that rely on judgement without setting clear benchmarks. Option 2 would enhance safety by setting requirements that are proportionate to the use of a space and the number of people that rely on means of access and escape.

Changes are practical and economically viable:

The status quo and Option 3 would avoid imposing costs but their lack of specificity would create uncertainty, particularly for new builds. Option 2 would reduce uncertainty by providing practical guidelines. It is not expected to result in retrofit costs (although we need the sector to provide feedback on this).

Table 17: Comparison of options against the status quo. Number and type of means of access and escape

	1. Status Quo	2. Harmonised rules, specific requirements that depend on type of space, how it is used, number / type of people	3. Harmonised rules, but low specificity of the form a means of access / escape takes.
Provides flexible and adaptive regulation	0	+	+
Rules that are clear and easier to understand and apply	0	++	+
Maritime safety is maintained or enhanced	0	++	0
Changes are practical and economically viable	0	0	0
Overall assessment	0	++	+

Key for qualitative judgements:

- ++ Much better than doing nothing/the status quo/counterfactual
- + Better than doing nothing/the status quo/counterfactual
- 0 About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred Option

The preferred option is option 2. It provides clear and easy to understand rules that support safety outcomes and is not expected to impose retrofit costs for existing vessels.

What are the marginal costs and benefits of the preferred option?

Table 18: Marginal costs and benefits of proposed requirements for the number and type of means of access and escape

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Owners/operators of a small subset of existing vessels	Some vessels may have access or escape arrangements that differ from those proposed.	Potential need for exemption, alternative arrangements, or transitional provisions in limited cases.	Low–medium
Additional benefits of the preferred option compared to taking no action			
Owners, designers, and builders of new vessels	Clarity of what is a suitable means of access or escape reduces ambiguity at the design stage	Reduced time and cost at the design and build stage.	High
Passengers and crew on new vessels	Escape arrangements better aligned with how spaces are used, particularly in accommodation areas and higher occupancy spaces.	Improved ability to evacuate safely in emergency situations.	Medium

Questions:

- A 9.1 Do you agree with distinguishing between a primary means of access and an alternative means of escape?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 9.2 Do you agree that the proposed requirements appropriately differentiate between accommodation spaces and operational workspaces?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

A9.3 Do you think that there some vessel types that should have different access and escape requirements? Which vessels and why?

A9.4 For existing vessels, do you consider the proposed requirements for means of access and escape to be generally achievable without having to make significant changes?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

Proposal 10: Capacity and dimensions of means of access and escape

What we are proposing

We propose that the dimensions / geometry of means of escape that are currently in place for passenger accommodation in passenger vessels would apply to all new vessels.

This would include:

- Minimum clear widths, linked to the number of people in a space, for doors, passageways, walkways and stairs providing a means of access / escape.
- Maximum and minimum angles for ladderways and stairways.
- Minimum stair tread depths and acceptable ranges of tread height.
- Minimum clear vertical height and handrail heights for stairways and requirements for stairways to be illuminated day and night (by natural means or lighting).
- Minimum dimensions, access to, and opening of hatches and windows that are used as means of escape.

Existing vessels

Dimensions of egress/escape on existing ships would be unaffected, provided a surveyor considers that existing arrangements provide a viable and safe means of escape in emergency situations.

Sailing vessels

Sailing vessels face design constraints that other vessels do not. We are interested to hear from stakeholders whether the proposed dimension requirements would be suitable, and whether or what alternatives could be put in place.

Escape hatches

The current minimum dimensions for escape hatches in passenger ships is 460 millimetres by 460 millimetres. Many people would struggle to get through a hatch of those dimensions quickly. Common hatch sizes (e.g. 600 mm by 580 mm) on modern vessels are larger and we would be interested in submitters views as to whether larger hatches should be required for new vessels.

Status Quo

Currently Maritime Rule Part 40A.19 sets detailed requirements for the dimensions and arrangements of means of access and escape from passenger accommodation.

In contrast:

- Part 40A does not include these requirements for crew accommodation or operational workspaces.

- Parts 40C and 40D do not include these requirements for any space.
- Part 40E includes some specific requirements,¹¹ though these are less complete and are more permissive than Part 40A.

What is the problem / rationale for change

For a means of escape to facilitate quick and safe evacuation from an enclosed space it must:

- Be structurally robust and not prone to collapse or deformation.
- Reduce the risk of injury during use, through features such as handrails or handholds, non-slip surfaces, and adequate lighting.
- Have sufficient capacity and appropriate design (e.g. width, slope, and clearance) to allow the expected number of people to evacuate under emergency conditions.

Apart from Part 40A and limited elements of Part 40E, the maritime rules include few explicit dimensional requirements for means of access and escape. As a result:

- Assessments of adequacy are often left to judgement, particularly at the design stage
- Similar vessels can be approved with materially different escape arrangements
- Designers and operators may face uncertainty about what is required to comply.

The lack of clear benchmarks increase the risk that some escape routes provide insufficient capacity for safe evacuation, while others are over-engineered beyond what is necessary.

The requirements in current rule 40A.19 are consistent with accepted evacuation analysis principles.¹²

Impact of the proposed change

The proposed change would improve the safety and consistency of access and escape arrangements on new vessels by applying clear, effective standards that are already used for passenger accommodation. Setting minimum dimensions for doors, passageways, stairs, ladders, hatches, and windows would reduce reliance on judgement and help ensure escape routes have sufficient capacity and are safe to use in emergencies.

For new vessels, the impact on cost is expected to be low. Compliance would be achieved through early design and layout choices, without requiring additional systems or complex construction. For existing vessels, there should be no direct impact, as current arrangements may continue to be used where a surveyor considers them to provide a viable and safe means of escape.

¹¹ For instance, minimum clear widths linked to the number of people in a space, for doors, passageways, walkways and stairs, and angles and read depths of ladders and stairways.

¹² These show that how easily people can evacuate depends heavily on simple features such as how wide routes are, how steep they are, and whether there are narrow pinch points.

Overall, the proposal is expected to improve safety outcomes and regulatory clarity while avoiding retrofit costs for the existing fleet.

Options analysis

Three options were considered:

Option 1 (status quo): For the most part (with exceptions for passenger accommodation on passenger ships and for sailing ships) there are no detailed requirements for the dimensions of means of access / escape.

Option 2: Detailed requirements for the dimensions of means of access / escape that would apply to all vessels (new and existing).

Option 3 (preferred option): Option 2 would apply, but a surveyor would be able to allow dimensions that differ if they consider that existing arrangements provide a viable and safe means of escape.

How the options compare with the status quo

Provides flexible and adaptive regulation:

The status quo, by being largely silent on dimensions, provides a high level of flexibility. Option 2 is adaptive, with dimensions dependent on the type of space and occupation, but would inflexibly apply requirements to all vessels, regardless of age and feasibility. Option 3 is similar to Option 2 but would provide flexibility for existing vessels.

Rules that are clear and easier to understand and apply:

The status quo is unclear. For most ships there are no explicit dimensional requirements, leading to uncertainty and reliance on assumption and practice. Options 2 and 3 would both provide clear dimensional requirements for all spaces, however Option 3 would be slightly less clear as surveyor discretion would apply to individual existing vessels.

Maritime safety is maintained or enhanced:

Options 2 and 3 would both enhance safety compared with the status quo. The proposed dimensions are consistent with established evacuation principles that allow timely and safe use of escape routes in emergencies. Option 2 would have a more immediate impact than Option 3, as it would make no allowance for existing vessels.

Changes are practical and economically viable:

The status quo avoids new costs but creates uncertainty, particularly at the design stage. Option 2 is the least practical and economically viable option as it could require costly retrofits. Option 3 is practical and economically viable because requirements would be incorporated at the design stage for new vessels and should avoid retrofit costs for existing vessels.

Table 19: Comparison of options against the status quo. Capacity and dimensions of means of access and escape

	1. Status Quo	2. Detailed requirements for the dimensions of means of access /escape that apply to all vessels (new and existing)	3. Detailed requirements for new vessels, surveyor discretion for existing vessels
Provides flexible and adaptive regulation	0	-	+
Rules that are clear and easier to understand and apply	0	++	+
Maritime safety is maintained or enhanced	0	++	+
Changes are practical and economically viable	0	-	++
Overall assessment	0	+	++

Key for qualitative judgements:

- ++ Much better than doing nothing/the status quo/counterfactual
- + Better than doing nothing/the status quo/counterfactual
- 0 About the same as doing nothing/the status quo/counterfactual
- Worse than doing nothing/the status quo/counterfactual
- Much worse than doing nothing /the status quo/counterfactual

Preferred Option

Option 3 is the preferred option. It sets clear dimension requirements that are consistent with established evacuation principles that allow timely and safe use of escape routes in emergencies, without imposing impractical and economically unviable costs on existing vessels.

Marginal costs and benefits of the preferred option**Table 20: Marginal costs and benefits of proposed requirements for capacity and dimensions of means of access and escape**

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Existing vessel operators	Existing arrangements may continue if assessed as safe.	Low: Surveyor discretion unlikely to result in retrofit costs.	Medium

Additional benefits of the preferred option compared to taking no action			
Owners, operators, designers of new vessels	Application of clear dimensional standards.	Clear benchmarks reduce design uncertainty.	High
Passengers and crew on new vessels	Escape routes with adequate capacity and geometry.	Improved evacuation safety.	Medium

Questions

- A 10.1 Do you agree with applying the existing dimensional standards for passenger accommodation to other new vessels?

[Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

- A 10.2 Are there vessel types or layouts where the proposed dimensional requirements would be difficult to apply in practice, even at the design stage?

[Answers: Yes; No; Possibly]

Which vessels? Why?

- A10.3 Do you agree with the proposed approach of allowing surveyor discretion for existing vessels?

Answers: Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree; No comment]

Why/why not?

How to have your say

15. The deadline for providing comment on these proposals is *5pm on Friday 25 September 2026*.
16. This document is part of a package of documents on the proposed changes to the design, construction, and equipment rules. Information on this consultation will be available on Maritime NZ's website.
17. Subject to interest, Maritime NZ will hold online information sessions on the proposals during the weeks of *17 to 21 August and 7 to 11 September 2026*. Please contact us at the email address provided below if you would like to attend a session or if you would like us to contact you to discuss any of the proposals.
18. We welcome any feedback you would like to provide. Submissions can be made by completing the submission form on our website <https://www.maritimenz.govt.nz/about-us/consultations/dce-40-series-package-3> or in any other written form; and:
 - emailed to us at 40.series@maritimenz.govt.nz; or
 - posted to the Regulatory Reform Projects Team, Maritime NZ, PO Box 25620, Wellington 6140.
19. This document includes questions to help you focus your feedback. Answering the questions is optional.

Submissions are public information

20. Please let us know if your comments are commercially sensitive or if for some other reason you consider they should not be disclosed. If your submission is subject to an Official Information Act (OIA) request, Maritime NZ will consider your confidentiality request in accordance with the grounds for withholding information set out in the OIA.
21. In addition, if you are an individual (that is your comments are made personally and not on behalf of a company or an organisation), please let us know if you have reasons that your identity should not be disclosed.
22. We will acknowledge all submissions that we receive.

Appendix 1: ‘Snapshot’ of proposed Accommodation, Escape and Personal Safety Rules

Main changes	What would change	Rule reference
Crew toilets	- New ships that would normally undertake voyages of four hours or more would be required to have crew toilets.	Rules C2.3(4)
Crew accommodation	- New ships undertaking voyages of 24 hours or more would be required to provide basic crew accommodation such as sleeping, cooking, eating, and wash facilities.	Rules C2.3(4)
Means of escape	- Spaces below the bulkhead deck would be required to have at least one means of escape that is not through a watertight door. This change would apply to existing vessels, with some limited exceptions. - Requirements for all accessible spaces to have two means of escape would be standardised across all ship types. Exceptions to where two means of escape are required would also be standardised across all vessel types. The permitted type of means of escape would be determined by whether it is the primary or alternative means of escape, whether the area it serves is accommodation or a workspace, and whether the space has more than 12 occupants. These changes would apply to new and existing vessels, other than existing sailing ships - The current rules that provide for the required dimensions and geometry of means of escape from passenger accommodation would be expanded to apply to all new domestic commercial vessels.	C3.3(6) and (7) C3.2(3), C3.3(1) – (5) MTI 3.2, 3.3 Rule C3.4 and C4.5 MTI 3.4 and 3.5

Main changes	What would change	Rule reference
Personal safety	- Requirements for the design of safety barriers would be standardised across all vessel types. Existing vessels would not be required to comply with the changes, so long as a surveyor is satisfied that existing arrangements are safe and fit for purpose. - Also under consideration is whether additional safety barrier requirements should be applied in areas of open deck accessible to children under 12 years of age to prevent them from being swept overboard and to prevent climbing. - New passenger vessels would be required to have a minimum safety barrier height of one metre, with some exceptions for smaller vessels or where barriers would impede normal vessel operations if alternative safety measures are in place. - Existing abilities to have lower or no safety barriers if they would impeded a ship's normal operations are made more transparent by requiring surveyors to specify alternative safety measures and record these on the certificate of safety.	Rules C4.2(2) MTI 4.2(3) and (4) Rules C4.3 MTI 4.3(6) – (9) Rules C4.4 MTI 4.4(2) - (5) Rules C4.5 and C4.6 MTI 4.5 and 4.6

Appendix 2: Cost and savings of proposal 6: Harmonisation of personal safety requirements

Item	Vessel types affected	Assumptions	Key costs / savings	Notes	Costs (black) or savings (red) by length		
					5 – 15 m	15 – 25 m	25 – 35 m
Allowing taut wire as a safety barrier	40A, 40C, 40D	- Taut wire used instead of guardrails on exposed decks - Marine grade taut wire \$8 - \$15 per metre - Taut wire installation time 0.6 – 1 hour per metre of three rails	Lower material costs Partially offset by higher installation costs	Cost saving assumes taut wire chosen over guardrails. Actual savings depend on whether guardrail courses are made of galvanised steel or marine grade stainless steel	\$200 - \$2000 if replacing galvanised steel \$1000 - \$7000 if stainless steel	\$500 to \$3,000 if replacing galvanised steel \$3,000 - \$11000 if stainless steel	\$1,000 - \$4,500 if replacing galvanised steel guardrails \$5000 - \$15000 if stainless steel
Maximum spacing of supports	40A, 40C	- A small number (5 – 10 for larger vessels) of additional stanchions per vessel - Materials for each support: \$60 - \$100 1.5 – 2 hours installation each	Fabrication and installation of additional supports	Not relevant for vessels with bulwarks. Most imported or modern designs already comply. Numbers affected likely to be low	\$0 - \$500	\$120 - \$800	\$300 - \$1500

Part 3I Accommodation, Access, Escape and Personal Safety Rules: Proposal Summary

Three courses of guardrails or taut wire	40A, 40C, 40D	~\$20 per metre for galvanised steel rail, \$40 - \$100 for marine grade stainless steel. 0.2 -0.4 hours per metre to install	Additional rail and labour	Not relevant for vessels with bulwarks. Simple to incorporate at build stage; many vessels would already comply	\$300 to \$1700	\$700 to \$3,500	\$1500 to \$3,500
Limiting gaps in cockpits opening aft to the sea	New or more stringent for 40A, 40C, 40D	- Open cockpit length of 2 to 8 metres depending on length \$20 per metre for galvanised steel, \$40 - \$100 for marine grade stainless steel - Installation 1 – 3 hours depending on cockpit length	Additional rail or equivalent barrier	Expected to affect relatively few vessels	\$180 - \$600	\$220 - \$900	\$360 - \$1100
Storm rails and hand grabs	40D, 40E	Required only where surveyor considers them necessary	Cost of fittings and installation	Low cost, targeted, surveyor directed	\$0 to \$800	\$0 to \$1,200	\$0 to \$2,000

