

Interim Regulatory Impact Statement: Reforming Design Construction and Equipment rules for commercial vessels

Coversheet

Purpose of Document	
Decision sought:	This analysis has been produced to support the release of draft regulatory proposals for consultation.
Advising agencies:	Ministry of Transport and Maritime New Zealand
Proposing Ministers:	Hon Matt Doocey, Associate Minister of Transport
Date finalised:	5 April 2024
Problem Definition	
<p>1. The current Design, Construction and Equipment (DCE) rules for domestic commercial vessels are overly complex and prescriptive. As a result they:</p> <ul style="list-style-type: none">• lack clarity which can lead to disagreement and inconsistent interpretations, high transaction costs and a high number of rule exemptions• are difficult to update and so are unable to keep up with technological advances or changes in industry practice. <p>2. Safety standards in the DCE rules need to be reconsidered. Many existing vessels are operating under ‘old’ standards that need to be raised to ensure public safety is maintained. In other cases standards have been set too high and place an unnecessary burden on operators.</p>	
Executive Summary	
<p>3. The DCE rules for domestic commercial vessels are over 20 years old and many standards are now out of date. The rule structure has become overly complex and unwieldy which has meant rule changes and improvements have become difficult. Many existing vessels are operating well below modern standards because they have not been required to meet current standards due to grandparenting, or because the current rules set standards too low. Accidents and near misses are already occurring, in some instances resulting in the Transport Accident Investigation Commission (TAIC) recommending amendments to the DCE rules.</p> <p>4. This paper considers three options to solve these issues:</p> <ul style="list-style-type: none">(a) continuing with the status quo –addressing issues through minor rule changes, rule exemptions and guidance(b) reforming content of the DCE rule set within the existing rule structure(c) reforming both the content and structure of the DCE rule set.	

5. We consider reforming the structure and content of the DCE rule set will achieve the highest net benefits. This will reduce transaction costs for the sector, improve safety outcomes and make future changes easier. Improving safety standards will mean some existing vessels may face significant upgrade costs (particularly life-saving appliances and fire protection). We propose transition periods for operators to make those upgrades. Where changes are not safety critical, existing vessels will be able to continue to meet their existing requirements rather than upgrade to the new standard.
6. We consider that the alternative options, which involve rule changes within the existing the rule structure, will not significantly reduce rule complexity or duplication. The alternative options also do not allow for future changes to be made efficiently.
7. We have undertaken extensive stakeholder engagement on technical proposals prior to public consultation. As a result we anticipate that stakeholders will, in general, support our approach to reforming the DCE rules, but will have further feedback on specific technical proposals and the time the sector will need to fully comply with the new rule set.

Limitations and Constraints on Analysis

Limitations on data and evidence used to develop proposals

8. In many cases we lack detailed information about what standards existing vessels currently meet. Some operators will have already upgraded equipment to modern standards and new proposed requirements will have little or no impact. For others a change in requirements will mean they must invest in upgrades to continue operating.
9. The impacts of upgrade costs on existing operators will vary. The ability to upgrade may depend on the size of the operator (number of vessels they operate and size of business), the age of their vessel(s) and their financial situation. Raising safety requirements may encourage some operators to invest in new equipment or new vessels, while others may decide to cease operating if their vessel is old and the cost to upgrade is too high.
10. Costing of proposals is based on a mixture of expert opinion, discussion with operators, anecdote and internet research. Commercial vessels are not all the same and cost estimates may not be reasonable for all situations. We intend to seek more information through consultation.

Limitations on scope

11. These proposed reforms relate only to issues with the DCE rules (also known as the '40 series' rules). Rules relating to Maritime Operating Limits (Rule 20), Seafarer Licensing and Certification (Rule 32) and Surveyor Recognition (Rule 44 Sub Part A) were not considered as part of this reform project.
12. The reform covers 15 of the 17 DCE rules. Rules 40F (Hovercraft) and 40G (Novel Ships) were not included as they focus more on vessel operations rather than just design, construction and equipment. These are intended to be reviewed separately.

Assumptions

13. We assume that our new proposed rule structure will enable future changes to be made more easily. This is contingent on detailed requirements in maritime transport instruments¹ being able to be made and updated much more quickly than maritime rules.

Responsible Manager(s) (completed by relevant manager)

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5 April 2024

Quality Assurance (completed by QA panel)

Reviewing Agency:	Maritime New Zealand with support from the Ministry of Transport
Panel Assessment & Comment:	An overall interim Regulatory Impact Analysis (interim RIA) has been prepared for the purposes of consultation and reviewed by a panel convened for this purpose. The interim RIA has been assessed to meet the criteria for quality Regulatory Impact Statements set out by the Treasury.

¹ The Minister can also make provisions in maritime rules that allow maritime transport instruments to be made by the Director of Maritime New Zealand. Maritime transport instruments are a new form of secondary legislation that can prescribe technical detail for how to comply with a rule.

Section 1: Introduction

What is the context behind the policy problem?

New Zealand's domestic commercial fleet

14. There are about 1600 maritime transport operators, operating around 2,300 vessels in New Zealand's domestic commercial fleet. These vessels are generally less than 24 metres in length and over half are less than 12 metres. Most commercial operations are small businesses with three or fewer crew.

New Zealand's maritime regulatory system

15. The Maritime Transport Act 1994 (the Act) regulates maritime transport safety and the impacts of maritime transport on the marine environment within New Zealand. Under the Act, the Minister of Transport makes maritime rules to address a range of maritime safety matters for domestic commercial vessels. These rules address:

- vessel design, construction and equipment requirements so that a vessel is fit for its intended purpose and carries the appropriate safety equipment (these are known as the "DCE" rules)
- vessel operating plans (which set out how the operation is run safely and how risks are managed)
- who can work on vessels (i.e. the qualification and experience the master/skipper and crew are required to have to safely operate the vessel).

16. The Minister can also make provisions in maritime rules that allow maritime transport instruments to be made by the Director of Maritime New Zealand. Maritime transport instruments are a new form of secondary legislation that can prescribe technical detail for how to comply with a rule.

Vessel design, construction and equipment (DCE) rules address a range of requirements that ensure that a vessel can operate safely

17. Seventeen rule topics set DCE requirements for New Zealand domestic commercial vessels. This set of rules are often referred to as 'the 40-series rules'.

18. The DCE rules are detailed and technical. They prescribe a wide range of requirements covering diverse combinations of design, use, size and operating location.² A vessel must:

- Stay afloat and remain upright and stable
- Resist the forces of waves and weather, and keep water out
- Have safe and effective machinery to propel the vessel, operate the steering, generate electricity, pump out bilge water, winch anchors, haul fishing gear (fishing vessels), and lift equipment and cargo
- Be designed to prevent fires from starting and spreading

² Around 10,000 rules and sub-rules

- Maintain a safe and effective electrical power supply
- Have appropriate navigation, radiocommunication and life-safety equipment
- Have appropriate accommodation and facilities for people on board.

DCE rules are arranged by vessel ‘type’

19. The current DCE rules are arranged according to vessel type – most vessels in the fleet are either a ‘passenger’, ‘non-passenger’ or ‘fishing’ vessel. A set of rules covers all of the requirements for each vessel type – i.e. life-saving appliances, fire safety, stability, weathertight and watertight. Smaller sets of specific rules also address barges and other vessel types.

20. Many requirements for a topic are broadly similar and repetitive between vessel types, but contain some differences at the detailed level. The reason for these differences is often unclear and do not reflect underlying differences in safety risks.

Most rules are over 23 years old with many vessels are operating under older standards due to “grandparenting”

21. The DCE rules were introduced between 23 and 26 years ago (depending on the rule part). However, much of their content was based on regulations and codes from the 1970’s and 80’s. When the DCE rules were introduced existing commercial vessels could continue to meet their existing requirements rather than meet the new requirements (this is known as grandparenting). Three quarters of the fleet pre-date the current DCE rules.

Ad-hoc amendments have introduced more complexity to the rules over time

22. There have been more than 100 individual amendments to the DCE rules since their introduction. These were often ad-hoc ‘fixes’ and did not consider the cumulative effect of many small changes on the rule system. The prescriptive nature of the rules also meant that amendments often introduced qualifications and exclusions, which have reduced consistency and added complexity over time.

Section 2: Diagnosing the policy problem

What is the policy problem or opportunity?

The DCE rules are overly complex and lack consistency making them difficult for the sector to understand and apply

23. The size and structure of the current DCE rules make them difficult to understand and apply -

- each vessel type has its own rule set for each topic, making them bulky and repetitive
- the rules are prescriptive and detailed, often with many qualifications and exclusions making the policy rationale or intended outcome unclear
- there are often small differences between requirements for different vessel types which are not easily understandable.

24. This complexity and uncertainty has increased transaction costs for operators who must seek advice from professional vessel surveyors,³ and apply to Maritime NZ for exemptions where DCE rules are inappropriate.⁴ These avenues can be expensive, cause delays and divert attention from other duties.

Rules are unable to be updated quickly to keep up with industry change and innovation

25. Adding to or changing rule requirements is currently difficult and time consuming as:

- international standards frequently change and require a large number of updates to our existing rules
- whenever updates are required to the DCE rules, multiple changes are needed because there are rules for each category of vessel
- changes are often highly technical in nature and consume a disproportionate amount of Ministerial resources; e.g. minor changes, such as allowing a new type of fire extinguisher, needs approval to consult from the Minister and for the Minister to sign the amended rule.

26. This makes it difficult to keep up with changing industry practice or innovation, for example the introduction of electrically propelled vessels. The current rules are built around engines powered by hydrocarbons (coal, oil, diesel or petrol) and do not address the fire risks associated with lithium-ion batteries used to power electric vessels. Addressing these risks will require changing multiple sets of rules in the current rule set.

27. Assessing rule exemptions (that enable alternative approaches) is also difficult within the current rule set because rules do not provide a clear purpose or outcome to measure against.

Safety standards need to change

Safety standards for many vessels are low in several critical areas

28. A portion of the commercial fleet is likely to be operating at lower safety standards than the New Zealand public would expect, particularly when compared to comparable activities on land⁵. The Transport Accident Investigation Committee (TAIC)⁶ has published a number of reports on maritime incidents that identify issues with the required safety standards of DCE rules⁷. Safety issues that require attention include:

³ Vessel surveyors are independent persons recognised by the Director of Maritime NZ as having the technical knowledge and competence to periodically survey commercial vessels. Their role is similar to an inspector doing warrant of fitness checks for motor vehicles.

⁴ Exemptions from rule requirements are usually granted where a rule requirement is clearly inappropriate or the applicant can demonstrate their approach is as effective as meeting the rule. Around 60 applications are made each year.

⁵ The requirements for carrying and using lifejackets is much less stringent than for seat belts in cars, and fire alarms and suppression systems are not mandatory like they are in buildings.

⁶ TAIC is an independent Crown entity with broad powers to inquire into and determine circumstances and causes of accidents and incidents in the transport sector.

⁷ Topics include: Fire detection and suppression ([TAIC report December 2017](#)), aging fishing vessels (TAIC recommendation 009/19) stability assessments ([TAIC recommendation 013/20](#))

- **Lifejackets** – commercial passenger vessels are not required to carry a lifejacket for everyone on board
- **Liferafts** – many vessels do not carry a liferaft, which could dramatically increase the likelihood of survival if passengers have to abandon ship
- **Stability** – about a third of vessels lack stability information which is critical for understanding and reducing risk of capsizing
- **Fire safety** – most commercial vessels are not required to have fire alarms, and very few have built-in measures to prevent a fire from spreading once it starts
- **Alternative power supply** – most of the fleet are not required to meet the current standard for alternative power supply despite having many critical systems that require electricity to run (such as steering, propulsion, navigation).

Grandparenting existing requirements has enabled and encouraged the retention of old vessels operating significantly below modern standards

29. The current rules allow some vessels to meet lower standards in perpetuity due to 'grandparenting'. This appears to have enabled and encouraged the retention of old vessels operating significantly below modern standards. For example, fire safety measures (fire alarm and fire suppression systems) were introduced in 2004, but only apply to around 7% of the fleet, because three quarters of commercial vessels pre-date the rule change. For the same reason, almost no large fishing vessels require structural fire protection to prevent fire from spreading.

Other standards have been set too high and may be inappropriate for our fleet

30. In some cases we have adopted standards from other jurisdictions or from international codes that are unsuitable for our domestic fleet⁸. For example:

- **Certification of anchors and cables** – third party testing is required on vessels less than 24 metres in length. This is much more onerous than necessary (as the forces exerted on the chain and cables are exponentially lower for smaller vessels).
- **Inspection of lifting appliances** – third party inspection is required annually for all cargo lifting appliances regardless of their size and risk profile. This is unnecessary for vessels with small appliances which lift loads of only a few hundred kilograms and is an example of how large vessel rules have been applied to smaller vessels in the domestic fleet.

What objectives are sought in relation to the policy problem?

31. We propose the following objectives to address the problems we have identified with the DCE rules:

- provide for flexible and adaptive regulations that are responsive to industry and technological changes

⁸ Ninety-three percent of the fleet is less than 24 metres in length, and half are less than 15 metres in length. Most work close to shore. About 20% only operate in sheltered waters such as a harbour. Another two thirds of the fleet (including most fishing vessels) operate within 12 nautical miles of the shore.

- make the rules clearer and easier to understand to reduce transaction costs
- ensure that maritime safety is maintained or enhanced.

32. Maintaining and enhancing safety will come at a cost for many operators. This will need be balanced against potential safety benefits, to ensure that any changes are practical and economically viable.

Section 3: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

33. The following criteria will be used to evaluate options against the status quo:

Criteria	Explanation
The changes provide flexible and adaptable regulation	<p>Changes in technology, standards or knowledge can be incorporated into rules (including transport instruments in a timely manner.</p> <p>Where appropriate, surveyors are provided with options about the evidence that may be used and/or the standards that apply.</p> <p>Decision-making by surveyors and by Maritime NZ is supported and enhanced.</p>
Rules are clearer and easier to understand and apply	<p>Unnecessary bulk and complexity is reduced.</p> <p>Requirements in rules are consistent and predictable.</p> <p>The arrangement of rules makes sense to users and requirements are straightforward to locate.</p> <p>The purpose of the rules and what is required is clearly stated.</p>
Maritime safety is maintained or enhanced	<p>Current safety standards are reduced where analysis indicates that they are unnecessarily onerous.</p> <p>Current safety standards stay the same where analysis indicates they are sufficient.</p> <p>Safety standards will improve where analysis indicates that current standards are not sufficient.</p>
Changes are practical and economically viable	<p>The change is technically and practically feasible.</p> <p>Unnecessary costs are reduced.</p> <p>The change achieves a balance between the risks of harm to people and the costs of making improvements to safety.</p> <p>The requirements are the minimum necessary to ensure safe operation.</p>

What scope will options be considered within?

34. Not all DCE rules have been considered as part of the reform. Options for reform do not consider rules relating to Hovercraft (Rule 40F), Novel Craft (Rule 40G) or DCE rules contained in marine protection rules. These will be addressed at a later date. Options only address issues with DCE rules and do not seek to address other maritime safety issues (for example relating to seafarer certification, surveyor training and recognition).

What options are being considered?

Option One (status quo) – Manage issues through ad-hoc amendments to rules, rule exemptions and guidance

35. Under the Status Quo existing issues with the DCE rules are addressed through:
- discrete case by case rule amendments
 - rule exemptions
 - guidance and other supporting documentation (for example Position Statements).
36. This case by case rule making approach is slow, because it requires consultation and Ministerial sign off for each rule change. It also does not easily allow for a broader approach to reform multiple rules or their structure.
37. Where change is required more quickly, rule exemptions or guidance material are used, which is inefficient and at times costly.

Option Two – Comprehensive reform of DCE rule content within existing rule structure

38. Under this option issues with the DCE rules would be addressed through reviewing and reforming the content (i.e. safety requirements) of the DCE rules. Rule changes would be done as a package rather than through existing annual rule change processes.
39. Like with Option One, the existing structure of the rule set would not be changed. This would make it difficult to utilise maritime transport instruments as their content would either be duplicated for each vessel type to mirror the rule structure, or if directed to a single topic would require multiple enabling provisions.

Option Three – Comprehensive reform of structure and content of DCE rules

40. This option proposes a comprehensive reform to the structure and content of existing rules involving:
- updating safety requirements to ensure they are risk-based, fit-for-purpose and are aligned (where appropriate) with other comparable jurisdictions
 - consolidating and harmonising rules for different vessel types into one set of rules and re-arranging them by topic area
 - introducing 'General Requirement' statements to rules that provide a high level outcome a vessel must meet
 - devolving detailed requirements from rules to new maritime transport instruments so that they can be updated by the Director of Maritime NZ rather than the Minister.

How do the options compare to the status quo/counterfactual?

	Option One – Continue with minor rule changes, rule exemptions and guidance material	Option Two – Major Reform to content of rules but no change to structure	Option Three - Major reform to rule design and safety standards
Provides for flexible and adaptive regulations	- Ability for rules to keep up with industry change and to provide flexibility will continue to reduce over time. The increasing transaction and administrative costs act as a barrier to change.	0 Rule set still bulky and duplicative so any future rule changes required will be as costly and time consuming as status quo. Still overly reliant on exemptions due to lack of rule flexibility.	++ Removing rule duplication means changes can be more precise and efficient. Having technical detail devolved to maritime transport instruments means changes can be made more quickly.
Rules are clear and easy to understand	- Increasing rule exemptions and introducing further qualifications and exceptions to existing rules will make rules more complex and unclear.	+ Reforming existing rule content could clarify its policy intent, however existing structure still lacks coherence and is difficult to navigate.	++ Will reduce duplication and revise overly prescriptive requirements. Creating general requirements and moving technical detail to transport instruments will make rules clearer and easier to understand.
Maritime safety is enhanced or maintained	0 Discrete rule amendments and guidance will only provide minimal safety enhancements and are only a 'band-aid' solution.	+ Safety improvements will be made but is only a short term fix. Maintaining and enhancing standards into the future will be difficult.	++ Full comprehensive reform allows for enhanced safety standards in many areas and maintains current standards where they are sufficient and appropriate.
Changes are practical and economically viable	- Cost of ad-hoc rule changes and exemptions increases over longer term as more and more change is required.	+ Changes are more practical than the status quo but are not future proofed. Systemic issues with rule design are not addressed so there will be future exemption costs and administrative costs when rules become outdated.	++ Maritime transport instruments will enable more efficient updates to technical requirements. Use of transition periods will give time for operators of older vessels to meet new standards. Where change is impractical grandfathering will still apply.
Overall assessment	-	+	++

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

Option Three delivers the highest net benefits and is necessary to fix the existing problems

41. Option Three (comprehensive reform to structure and content of the rules) is our preferred option as it best addresses the problem, meets our policy objectives and delivers the highest net benefits:

- consolidating and harmonising similar rules will reduce rule duplication and complexity
- creating 'General Requirement' statements will help clarify the policy intent of the rules and provide a yardstick to measure exemption applications against
- reforming content of the rules in tandem with their structure will enable us to improve the rule design, raise safety standards where existing rules have fallen behind modern standards, and ensure that requirements are risk-based.

Option Three involves the biggest change from the status quo which may take time for parties to adjust to, but they will reap benefits over longer term.

42. Option Three will deliver the most long term benefits. Creating a clear structure and hierarchy where high-level requirements are found in rules and the detailed requirements are devolved to maritime transport instruments will enable technical updates to be made more easily in response to industry change. This approach will reduce the need for exemptions and will and reduce transaction costs for operators, making it easier for them to comply with their obligations.

43. It may take time for operators and surveyors to become familiar with a new rule structure. However, we can mitigate this risk through user-testing the rules before commencement, and providing guidance alongside the new rules to aid in their interpretation.

Transition periods will mitigate cost impacts of changing requirements for existing vessels

44. Where the costs to upgrade to new standards are significant, we will provide a transition period for operators to meet the new standard. This will allow operators to spread the cost to comply over a longer time period, so they are able to make upgrades before new requirements come in to place.

45. Where changes are not justified for existing vessels from a safety perspective grandparenting of existing requirements will continue (for example where change is as a result of harmonising rules and involves altering an integral part of the vessel – like the bilge system⁹).

Option Two will address low safety standards but will not allow the rules to be future proofed and adaptable to change

46. Option Two (reforming the content of rules within the existing rule structure) is the next best option. This option will address problems with low safety standards in the current rules and may reduce over prescriptiveness of some requirements.

⁹ A vessel's bilge system is responsible for collecting and pumping out any water that accumulates in the lowest part of the hull, known as the bilge.

47. However, keeping rules up-to-date as standards change will continue to be challenging within the current rule structure. The new requirements will overtime become out-of-date and the problems that the reforms sought to fix will reappear. For example, without the ability to make systemic changes more easily, ongoing amendments will continue to add complexity and transaction costs for the sector.

Option One will not address fundamental design issues and problems will get worse over time.

48. Option One (status quo) is not recommended as it does not address the majority of existing issues with the current rules. Carrying out rule changes 'piece by piece' will mean systemic and structural improvements are not possible. This approach will not keep pace with the number of changes required given this approach is very resource intensive. There will be a continued and increasing reliance on exemptions where rules are inappropriate which will increase transaction costs for operators. Overtime this will see the rules become further out of date and require reform at some stage in the future.

49. Operators and surveyors will require more guidance where rules remain unclear and rule changes are unable to be made. However guidance material is not a substitute for updating requirements as it does not have the same authority as a rule and cannot correct problems with existing requirements.

What are the marginal costs and benefits of the preferred option – non monetised

50. The marginal costs and benefits analysis and costing information below has considered the costs and benefits of both the proposed approach described above and the detailed costs and impacts of the technical and detailed proposals that result from selecting this option. The detailed cost and impact information has been included to help build an understanding of the consequences of the decision to significantly reform the DCE rules (Option 3).

Affected groups <i>(identify)</i>	Comment <i>nature of cost or benefit (eg, ongoing, one-off), evidence and assumption (eg, compliance rates), risks.</i>	Impact <i>\$m present value where appropriate, for monetised impacts; high, medium or low for non-monetised impacts.</i>	Evidence Certainty <i>High, medium, or low, and explain reasoning in comment column.</i>
Additional costs of the preferred option compared to taking no action			
Operators of existing vessels	<p>Costs to upgrade to meet new requirements where safety standards have been raised.</p> <p>Extent of upgrade costs will depend on whether an existing vessel is already meeting contemporary standards or not.</p> <p>Transition periods will allow time to make upgrades (2 to 5 years).</p> <p>Grandparenting of existing requirements will continue in some situations (where cost to upgrade are prohibitive or changes are a result of harmonising requirements rather than a pressing safety need).</p>	Low to High (see specific examples below)	<p>Low to Medium</p> <p>Unclear how many vessels may already meet new standards, how many elements on a vessel may require upgrade. We will test this through consultation.</p>
<ul style="list-style-type: none"> Operator of an existing small vessel - 6m or less in length 	Some may require stability information; and/or work to meet electrical safety standards; and/or some passenger vessels may require lifejackets.	Low	Medium. Data about the current status of existing vessels is uncertain
<ul style="list-style-type: none"> Operator of an existing small to medium vessel - more than 6m and less than 12m in length 	Some may require stability information and freeboard making; and/or work to meet electrical safety standards; and/or liferafts; and/or fire safety systems; and or some passenger vessels may require lifejackets.	Low to Medium	Medium. Data about the current status of existing vessels is uncertain
<ul style="list-style-type: none"> Operator of an existing medium to large vessel - more than 12m and less than 24m in length 	Some may require stability information and freeboard making; and/or work to meet electrical safety standards; and/or liferafts; and/or fire safety systems; and or some passenger vessels may require lifejackets or rescue boats.	Medium	Medium. Data about the current status of existing vessels is uncertain
<ul style="list-style-type: none"> Operator of an existing large vessel - more than 24m in length 	<p>Many vessels already meet or exceed the proposed new standards.</p> <p>Some existing vessels may require stability information; and/or work to meet electrical safety standards; and/or liferafts; and/or fire safety systems; and some passenger vessels may require lifejackets; and some fishing vessels may require structural fire protection or rescue boats.</p>	Low to High	Medium. Data about the current status of existing vessels is uncertain

Operators of new vessels	No or minor increase in costs for new vessels as many current standards are not changing. Where current standards are changing these will be able to be factored in at design stage at relatively low additional cost (if any).	Low	High
Surveyors	Minor increase in costs for surveyors (to become familiar with new rules – which will reduce over time).	Low	High
Vessel crew	None.	None	High
Consumers (e.g. passengers)	Operators may pass through some upgrade costs to consumers.	Costs pass-through likely to be small and vessel dependent.	Low – some cost pass through is possible
Regulator (Maritime New Zealand)	Initial increased resourcing cost to implement new rules but this will be offset by reduction in annual administration cost of rules over time (e.g. fewer exemptions required).	Low	Medium to High
Total costs		Low to High (depending on vessel)	Medium
Additional benefits of the preferred option compared to taking no action			
Operators of existing vessels	Raised safety standards will increase the longevity of the vessel or encourage investment in a new or replacement vessel and reduce risk of incidents. Transaction costs and uncertainty will reduce with clearer and more flexible rules. Reduction in exemption applications. Some costs will be reduced where current standards are reduced. For example certification requirements for anchors and cables.	Medium Reduction in exemption where processing cost is approximately: \$735 to \$1470 per exemption.	Medium
Operators of new vessels	Transaction costs and uncertainty will reduce with clearer and more flexible rules.	Medium	Medium
Surveyors	Reforms will improve usability of rules for surveyors.	Medium	High
Vessel crew	Improving safety standards will reduce risk of incident on vessel.	High - Likely reduction in loss of life	High
Consumers (passengers on commercial vessels)	Improving safety standards will reduce risk of incident on vessel. Time for rescue and ability to respond to an incident is increased (e.g structural fire protection or better life-saving appliances).	High - Likely reduction in loss of life	High
Emergency responders	Reduced likelihood of response required where incident caused by DCE failure (for example reduction in coastguard call out).	Medium	Medium

Regulator (Maritime New Zealand)	Administrative cost to process individual exemptions and develop class exemptions will reduce as proposals should address problems with rules.	Medium to High	High
Total benefits		High – highest benefits for crew and passengers. Also significant benefits for Operators and Surveyors.	

Potential monetised costs for operators of existing vessels

51. The cost of the proposals will vary between vessels. Some operators will have already upgraded equipment to modern standards and new proposed requirements will have little or no impact. For others, who have only been meeting existing minimum requirements or relying on grandparenting provisions, changes will mean they must invest in significant upgrades to continue operating.
52. Vessels have been grouped by four different length bands to demonstrate the estimated costs for different sized vessels. Both the estimated number of existing vessels impacted by each change and estimated costs are shown as a range.
53. Life-saving appliance costs are separated from the cost totals as they are highly variable. Multiple appliances may be required but alternative mitigations are also possible meaning the high costs might be avoidable. The cost of installing structural fire protection is also separated out because it is a large cost that is expected to apply to a very small number of vessels.
54. We have not attempted to estimate the total cost of the proposals at this stage because there is a high degree of uncertainty around what safety equipment vessels already have, and when combined with cost estimates for each item creates a compounding effect. We consider that presenting itemised costs gives a more accurate picture. Cost impacts will be tested through consultation and we will be able to provide a more accurate assessment once we have gathered more information from operators.

Table 1: Vessels 6 metres or less in length. Main costs that could apply

Rule part	Item	Est. cost per item
Life-saving appliances	Lifejackets (<i>passenger vessels</i>)	\$100
Stability	Baseline stability information	\$3,000 – \$3,900
Electrical	Minimum electrical safety standards	\$500 - \$650
	Navigation lights alternative power (<i>assumes this will be a separate battery</i>)	\$200 - \$260
	Dual batteries & changeover switch	\$500 - \$650
Maximum estimated cost to implement all changes if required (over 2-5 years) (<i>Excludes lifejackets as multiple items may be required</i>)		\$5,400 + \$100 per additional lifejacket

Table 2: Vessels more than 6m in length and less than 12m. Main costs that could apply

Topic	Item	Est. cost per item
Life-saving appliances	Lifejackets (<i>passenger vessels</i>)	\$100
	Liferafts (<i>size and number required will depend on the number of person on board</i>)	\$3,000 - \$6,000
Fire protection	Stand-alone smoke detector / alarm (<i>assumes less than 37 passengers</i>)	\$150 - \$195
	Fixed fire extinguishing system	\$4,500 - \$5,850

Machinery	Bilge level alarms	\$400 - \$600
	Bilge level alarms and submersible electric bilge pumps on separate circuits	\$500 - \$700
	Install engine alarms	\$500 - \$700
Stability	Baseline stability information	\$4,500 - \$5,850
	Freeboard marking	\$1,500 - \$1,950
Electrical	Minimum electrical safety standards	\$1,000 - \$1,300
	Alternative power supply to navigation lights	\$400 - \$520
	Dual batteries & changeover switch	\$500 - \$650
Maximum estimated cost to implement all changes if required (over 2-5 years) <i>(Does not include lifejackets and liferafts, as multiple items may be required depending on numbers of persons on board)</i>		\$18,300 + additional costs for lifejackets (\$100 each) and liferafts (\$3,000-\$6,000)

Table 3: Vessels of more than 12 metres in length and less than 24m. Main costs that could apply

Rule Part	Item	Est. cost per item
Life-saving appliances	Lifejackets (<i>passenger vessels</i>)	\$100
	Liferafts (<i>size and number required will depend on the number of person on board</i>)	\$3,500 - \$8,000
	Rescue boats (<i>passenger vessels</i>)	\$20,000 - \$26,000
Fire protection	Fire detection and alarm system (<i>vessels of 15 metres or more in length, or 37 or more passengers</i>)	\$12,000 - \$15,600
	Fixed fire extinguishing system (<i>vessels with inboard engine</i>)	\$9,000 - \$11,700
Machinery	Bilge level alarms	\$400 - \$600
	Bilge level alarms and submersible electric bilge pumps on separate circuits	\$500 - \$700
	Install engine alarms	\$500 - \$700
Stability	Baseline stability information	\$6,000 – \$7,800
	Freeboard marking	\$1,500 - \$1,950
Electrical	Minimum electrical safety standards	\$1,000 - \$1,300
	Accessible switchboard for navigation lights	\$1,000 - \$1,300
	Dual batteries & changeover switch	\$800 - \$1,000
	Alternative power for navigation lights (fishing)	\$400 - \$520
	Emergency lighting (fishing)	\$1000 - \$1,300
Maximum estimated cost to implement all changes if required (over 2-5 years)		\$39,000 + additional costs for lifejackets (\$100 each), liferafts (\$3,500-

<i>(Does not include life-saving appliances, as multiple items may be required, and rescue boat proposals include options)</i>	\$8,000), and rescue boat (\$20,000 - \$26,000)
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Table 4: Vessels of 24 metres or more and less than 45 metres in length. Main costs that could apply

Rule Part	Item	Est. cost per item
Life-saving appliances	Lifejackets <ul style="list-style-type: none"> • Passenger vessels • 150 newton lifejackets, non-passenger and fishing vessels 	\$100 pp \$125 pp
	Liferafts <i>(size and number required will depend on the number of persons on board)</i>	\$8,000 - \$50,000
	Rescue boats <i>(non-passenger vessels; possibly a fishing vessel)</i>	\$20,000 - \$26,000
Fire protection	Fire detection and alarm system <i>(vessels of 15 metres or more in length, or 37 or more passengers)</i>	\$33,000 - \$43,000
	Fixed fire extinguishing system	\$22,000 - \$30,000
	Structural fire protection <i>(fishing vessels)</i>	\$150,000 - \$195,000
Machinery	Bilge level alarms	\$400 - \$600
	Bilge level alarms and submersible electric bilge pumps on separate circuits	\$800 - \$1,200
	Install engine alarms	\$600 - \$1,000
Stability	Baseline stability information	\$7,000 – \$9,000
Electrical	Minimum electrical safety standards	\$2,000 - \$2,600
	Accessible switchboard for navigation lights	\$1,000 - \$1,300
	Items applying to fishing vessels: <ul style="list-style-type: none"> • Navigation light fail indicator • Emergency lighting • Navigation lights alternative power 	\$500 - \$5,000
Maximum estimated cost to implement all changes if required (over 2-5 years) <i>(Excludes life-saving appliances, as multiple items may be required, and rescue boat proposals include options. Excludes structural fire protection, which may only apply to a few vessels - e.g. less than 15)</i>		\$96,000 + additional costs for lifejackets (\$100-\$125 each), liferafts (\$8,000-\$50,000), and rescue boat (\$20,000 - \$26,000), and structural fire protection (\$150,000-\$195,000)

Section 4: Delivering an option

How will the new arrangements be implemented?

55. On behalf of the Minister, Maritime New Zealand intends to consult on rule changes to give effect to the preferred option (Option Three) in three stages from mid-2024 to mid-2025. The three stages are:
- Stage one – June 2024 (Life-saving Appliances, Fire Protection, Machinery and Ancillary Equipment, and Anchors and Cables)
 - Stage two – early 2025 (Survey, Stability, Watertight and Weathertight, Electrical, Radio and Navigation)
 - Stage three – mid 2025 (Accommodation and Egress, Lifting Appliances, Cape Town Agreement Consequential Amendments, Other Vessels, Conventions).
56. The draft rules and transport instruments will be ‘user tested’ by technical experts and maritime surveyors before and during the consultation period to ensure the rules are workable and safety standards are appropriate across different vessel types. This will enable Maritime New Zealand to identify whether any policy or drafting changes are needed and what supporting material is required for implementation.
57. Material to support implementation of new rules will be developed during 2025. This is likely to include education and guidance material, updated survey performance requirements, new forms and templates.
58. The new rules are intended to be made in 2026. Some rules will come into force immediately, some will have a transition period to enable existing operators time to upgrade to new requirements, while others may only apply to new vessels.

How will the new arrangements be monitored, evaluated, and reviewed?

59. Maritime operators, surveyors and other stakeholders will have the opportunity to provide feedback on the new proposals during the consultation period. Once in force, Maritime New Zealand will monitor and evaluate the rules through feedback from surveyors and operators. Exemption applications will also be monitored as these will provide a good indication of the success of the new rules.
60. Any required amendments to the rules will be considered through Maritime New Zealand’s annual omnibus rule update process.

Consultation and stakeholder views

61. The purpose of this analysis is to support the Minister and Cabinet’s decision to consult on rules that implement the preferred option. Maritime New Zealand has undertaken significant stakeholder engagement so far including:
- specific engagement on potential policy changes for each rule topic (known as an ‘exploring change’ process)
 - presenting at conferences
 - meetings with the sector.
62. This approach has allowed us to test key areas of potential change with stakeholders including surveyors, owners, operators, boat builders and equipment suppliers. In

particular specific engagement for each rule topic has provided opportunity to engage and raise issues before consultation and before new rules are formally drafted. In general the sector supports the proposed approach to reforming the DCE rules. There has been useful feedback on the detailed policy proposals which has often resulted in changes.

63. We anticipate that Iwi and Māori will have particular interest in proposed changes to DCE requirements for fishing vessels. We have offered commercial Iwi operators the opportunity to be involved in developing the proposals and intend to undertake specific engagement with Te Ohu Kaimoana and other Iwi groups with commercial fishing interests during the consultation period.