Snapshot of Proposed Changes

Design, Construction and Equipment Rule Reform Package 2 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 four Rule topics being consulted on in this package: Watertight and Weathertight, Stability, Electrical, and Radio Equipment.
- *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 www.maritimenz.govt.nz/public/consultation/DCE-40-series-package-2/

Note this snapshot not intended to be comprehensive. We encourage readers interested in a particular topic to look at the proposal summary and draft rules and MTI.

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Part 3B Stability, Drainage, Freeboard and Subdivision Rules

Main changes	What would change	Rule reference
Application	**For vessels already in the fleet** – decisions on how the proposed changes would apply to existing vessels have not been determined. Feedback is sought on how to balance a vessel's safety with the cost and practicality of requiring some vessels to meet the new requirements. This is discussed in Part A of the proposal summary document for the Stability, Drainage, Freeboard and Subdivision Rules. **For vessels new to the fleet** – the new rules would apply to all vessels that enter New Zealand's fleet.	
Categorising a vessel based on its complexity and characteristics	Vessels would be categorised as high or low complexity **and** either open or decked. How a vessel is categorised would generally determine what stability, drainage, freeboard and subdivision rules apply. • **High or low complexity:** - A high complexity vessel has one or more of the following features: 24m or more LLL; carries more than 50 persons, or more than 12 persons if it is an open vessel; operates beyond restricted limits or inshore fishing limits; carries cargo (other than catch) weighing more than 8% of lightship displacement; as part of its standard operation tows another vessel that is greater than twice its length; has a lifting appliance where the safe working load exceeds 1% of lightship displacement, or 300 kg, whichever is greater; is a fishing vessel or an open vessel of 12m or more in LOA; is a fishing vessel that engages in trawling, dredging, or other activities where heavy gear is towed, or is engaged in purse seining. - A low complexity vessel is not a high complexity vessel. • **Open or Decked.** A vessel would be categorised as either open or decked depending on its characteristics, as applicable: - residual stability with recesses swamped - the ability of the vessel to shed water from decks or drain water from recesses - the minimum freeboard of the vessel to the deck.	Rules C2.2, C2.3 and MTI Section

<table>
<tr><th>Main changes</th><th>What would change</th><th>Rule reference</th></tr>
<tr><td>Overview of stability, drainage, freeboard and subdivision requirements</td><td>
<table>
<tr><th></th><th>Open ship</th><th>Decked ship</th></tr>
<tr><td>Low complexity</td><td>Tests: Would require a swamp test; heel test; person rescue and recovery test; and damage test (for vessel with inflatable collars or air chambers)
General: Would need to meet general requirements for damage stability; and meet minimum assigned freeboard.</td><td>Tests: Would require a heel test; and damage test (applicable to inflatable collars and air chambers)
General: Would need to meet general requirements for damage stability; comply with drainage requirements; have minimum freeboard assigned; and comply with subdivision requirements if 12m or more LOA</td></tr>
<tr><td>High complexity</td><td>Tests: Would require comprehensive intact stability assessment; and damage test (for vessel with inflatable collars or air chambers)
General: Would need to meet general requirements for damage stability; drainage requirements (may use bilge pumps able to withstand swamp event); have minimum freeboard assigned and marked; and have draught marks if 12m of more LOA.</td><td>Tests: Would require comprehensive intact stability assessment; and damage test (for vessel with inflatable collars or air chambers)
General: Would need to meet damage stability requirements; drainage requirements; have minimum freeboard assigned and marked; and if 12m of more LOA have draught marks and comply with subdivision requirements</td></tr>
</table>
</td><td>Rules C1.1; Rules Subpart C, Sections 3, 4, 5, 6, 9, 10, 11 & 12. MTI Sections 3, 4, 5, 6, 9, 10, 11 & 12.</td></tr>
<tr><td>A vessel’s stability would need to be assessed if certain thresholds are met</td><td>A vessel’s stability would need to be assessed if a major alteration or a major change to a vessel’s operation or any other change causes a vessel’s lightship condition to differ, either individually or cumulatively, by equal to or greater than the following percentages:
4% lightship displacement
2% LCG (as a percentage of LOA)
1% VCG.</td><td>Rule C1.3</td></tr>
<tr><td>Stability information</td><td>A low complexity vessel would require a stability compliance report and a stability statement.
A high complexity ship would require a stability booklet.</td><td>Rules C7.2 & C7.3</td></tr>
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Main changes	What would change	Rule reference
Freeboard - assigning and marking minimum freeboard	• Low complexity vessel: Tables in MTI specify minimum tabulated freeboard based on vessel length and whether it is open or deckled. • High complexity vessel (less than 24m LLL): Minimum freeboard would be assigned primarily based on scantling draught or stability assessment. Freeboard marking or placard would be required for all high complexity vessels. • Vessels less than 24m LLL that carry cargo would no longer have to meet the load line requirements under the current Rule Part 47 (load line).	Rule C10.3 & MTI 10.2 Rule C11.2 & MTI 11.2
Towing assessment	• Requirements for vessels that tow by a means of a tow rope (not just tugs). • Requirements depend on size of the vessel being towed. Requirements based on whether the towed vessel is likely to more than twice displacement of the towing vessel or likely to be greater than twice the length of the towing vessel. • No additional requirements if the vessel being towed is likely to be less than twice the displacement of the towing vessel.	Rule C8.4 & MTI 8.4.
Lifting	• Open vessels would not be able to be fitted with lifting appliances with safe working loads exceeding 300 kg or 1 percent lightship, whichever is greater. • For low complexity open vessels, maximum 7-degree angle of heel or minimum heeled freeboard of 250 mm around the periphery of the vessel when lifting.	Rule C2.2, C3.4 C4.4

Part 3C Watertight and Weathertight Rules

Main changes	What would change	How the proposal would apply	Rule reference
Existing vessels	Grandparenting would apply to existing vessels for most requirements – which means they can continue to comply with the rules that apply now.		
Ventilator requirements would include more detail	Ventilators in Positions 1 and 2* would need to be of adequate strength; face aft or inboard or otherwise be protected from the elements; have coamings high enough to prevent downflooding; and meet minimum height requirements. A ventilator would generally require a weathertight closing appliance unless it meets height and downflooding requirements and includes a baffle and a means to drain water.	Would apply to all new vessels of less than 24m in length in all operating limits when rules take effect. * In broad terms Positions 1 and 2 refer to exposed freeboard decks, raised quarterdecks or exposed decks lower than 3 standard heights of superstructure above the freeboard deck.	Rule C5.2(1) MTI Section 5
Ventilators in the sides of a vessel (wall ventilators) would be allowed	Wall ventilators would be allowed, if they are fitted with an internal baffle that rises above the upper edge of the exterior opening, so that water entering the inlet would fall within the air box and does not flood over the baffle.	Would apply to all new vessels of less than 24m in length in all operating limits when rules take effect. Existing vessels would have the option of meeting new rules for wall ventilators.	Rule C5.2(2) MTI Section 5
Construction standards for glazed openings	The design and construction of a glazed opening would need to comply with a standard that is appropriate to the type and operation of the vessel. The options include classification society rules and a range of ISO standards.	Would apply to all new vessels of less than 24m in length in all operating limits when rules take effect.	Rule C7.2 MTI 7.2(2)
Glazing standards or additional protection for glazed openings	Glazed openings would need a safety factor of 1.5 applied to their design pressure (or have deadlights or storm covers) if located on: - a deckhouse or superstructure with direct access leading below deck; or - a deckhouse or superstructure that is considered buoyant, based on the stability calculations prescribed in the new Part 3B: Maritime (Design, Construction, and Equipment – Stability, Drainage, Freeboard, and Subdivision) Rules.	Would apply to all new vessels of less than 24m in length, operating beyond inshore limits / beyond inshore fishing limits. Would apply when rules take effect.	Rule C7.2 MTI 7.2(4)

Main changes	What would change	How the proposal would apply	Rule reference
Opening portholes	Opening portholes would be allowed below the weather deck subject to conditions: - located as close as possible to the freeboard deck; not in high-risk areas; minimum distance above the deepest loaded waterline; - hinged watertight deadlights would need to be fitted; - control measures would be required to ensure the portholes are not opened while vessel is underway	Would apply to all new vessels of less than 24m in length in all operating limits when rules take effect. Existing vessels would have the option of meeting new rules for opening portholes.	Rule C7.2 MTI 7.2(6)-(8)

Part 3F Electrical Rules

Main changes	What would change	How the proposal would apply	Rule reference
Persons who carry out marine electrical work	Marine electrical workers would need to: - Confirm that the work they do is safe; is tested; complies with the Electrical Rules and MTI; and complies with the electrical design approval where one is required. - Provide records of inspections and tests, and a written statement to the vessel operator.	Would apply to marine electrical work on all vessels when the new rules take effect.	Rule B1.4
Option of meeting minimum electrical standards	As an alternative to complying with AS/NZS 3004.2, existing vessels would be able to comply with minimum safety requirements described in the Appendix to the MTI.	Would apply to existing vessels of less than 45m LOA.	Rules C1.1 MTI 2.1(2)(b) & Schedule 1
Alternative source of electrical power	Vessels would require an alternative source of electrical power that can provide power to essential equipment* if the main source of power fails. * navigation lights, emergency lighting, radio power and light, electronic control systems and alarms, and electrically powered bilge pumps	Would apply to all vessels. Five year transition would apply for existing vessels.	Rule C3.1
Switchboard arrangements	Circuits providing power to essential equipment would need to be clearly labelled on the switchboard so that non-essential circuits can be easily switched off in an emergency.	Would apply to all vessels. Five year transition would apply for existing vessels.	Rule C3.2(4)(a)
	Circuits for essential equipment would need to be arranged separately on the switchboard.	Would apply to new vessels.	Rule C3.2(4)(b)
Alternative power capacity would reduce for most vessels	The current 12 hours battery capacity would reduce for most vessels: - Enclosed water limits 2 hours - Inshore limits & Inshore fishing limits 3 hours - Coastal limits 6 hours - Offshore and unlimited 12 hours *(no change)*	Would apply to all vessels when the new rules take effect.	Rule C3.3
Navigation light alternative power	All vessels would need to have an alternative (i.e. emergency) source of power for navigation lights. Vessels of less than 12m LOA operating in restricted limits / inshore fishing limits would be able to carry battery-operated navigation lights for use as alternative navigation lights if the main navigation lights fail.	Would apply to all vessels. Five year transition would apply for existing vessels.	Rule C4.1

Main changes	What would change	How the proposal would apply	Rule reference
Emergency lighting	All vessels would require emergency lighting. Existing vessels, and all vessels of less than 12 metres in length overall operating in restricted limits or inshore fishing limits, would be able to use a waterproof rechargeable torch or a fixed battery-operated lamp as emergency lighting.	Would apply to all vessels. Five year transition would apply for existing vessels.	Rules C5.1 and 5.2
Electronic control systems and alarm systems	Networked, and integrated, alarm systems, electronic control and monitoring systems, and the software and hardware supporting them, would need to be designed and installed in accordance with the relevant rules of a classification society and have an alternative power supply.	Would apply to any vessel that has these systems. Five year transition would apply for existing vessels.	Rules C7.1 and C7.2
Electric propulsion	Electric propulsion components, systems and arrangements would need to comply with the rules of a classification society or (for vessels up to 50m LOA) the revised version of AS/NZS 3004.2 (due to be published in 2025).	Would apply to all vessels when the new rules take effect.	Rule C8.1 and MTI
Batteries used for engine starting	A new vessel with electric starting for the main propulsion engine would need a dedicated battery / battery bank to start the engine and another battery / battery bank to supply electrical services on the vessel. A changeover switch would be required so that the engine can be started from either battery / battery bank.	Would apply to new vessels with electric starting.	Rules C9.1(9) and MTI 2.5(2)
Lithium-ion batteries	An Electrical Design Approver / Electrical surveyor would need to approve the design and installation of a Li-ion battery.	Would apply to all vessels when the new rules take effect.	Rule C9.1(11)

Part 3G Radio Equipment Rules

Main changes	What would change	How the proposal would apply	Rule reference
The master would need to carry a means of communication	The master would need to carry: • a cellular phone - if the vessel operates within cell phone coverage; or • a hand-held (i.e. portable) VHF radio - if the vessel operates in an area where the hand-held radio has sufficient range to make a call on channel 16; or • a PLB.	Would apply to new and existing passenger and sailing vessels of less than 12m in length that operate within restricted limits. Would apply when the new rules take effect	Rule C2.2(1) MTI 2.2

More vessels would need to carry an EPIRB	• An EPIRB would need to be float-free unless an exception applies.
	• The following vessels would be allowed to carry a manually activated EPIRB:
	  ○ Vessels of less than 12m in length operating in restricted limits
	  ○ Fishing and dive boats operating under a SOP
	  ○ Vessels operating in inshore limits that do not have a suitable space for an EPIRB hydrostatic release unit.
		Would apply to all vessels except vessels of 6m or less that do not operate beyond enclosed water limits.
		Would apply when the new rules take effect.
			Rule C2.2(1)
			MTI 2.2
			MTI 3.2

EPIRBs would need to meet new performance specifications	All EPIRBs would need to operate on 406 MHz, be GNSS enabled and have AIS capability.	Would apply to all new and existing vessels. Existing vessels would have five years to meet the requirements.	Rule C2.2(1) MTI 2.2 MTI 3.2
SOP Dive boats and Fishing boats would not have separate rules	Radio Equipment requirements for dive boats and fishing boats that operate under a SOP would be the same as for any other vessels of the same size and type operating in the same area.	Would apply to all new and existing SOP dive boats and SOP fishing boats when rules take effect	Rule C2.2(1) MTI 2.2