



Australian Government

Australian Maritime Safety Authority



Consultation Feedback Report

National Standard for Commercial Vessels,
Part C – Design and Construction, Section
4 – Fire Safety (NSCV C4) Edition 3.0



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Introduction

The Australian Maritime Safety Authority (AMSA) has developed a new edition (3.0) of the National Standard for Commercial Vessels, Part C – Design and Construction, Subsection 4 – Fire Safety (NSCV C4).

NSCV C4 is a regulatory standard that sets minimum requirements for fire safety equipment to be carried or installed on surveyed Domestic Commercial Vessels (DCVs). It interacts with a number of other Standards, including the National Code of Practice for the Storage and Handling of Workplace Dangerous (NOHSC:2017(2001)), *Marine Order 15 (Construction — Fire Protection, Detection and Extinction) 2014*, and relevant state and territory legislation. It is not a comprehensive guide to fire safety technology available.

The planned commencement date of the new Standard is 01 July 2027

AMSA invited feedback from Australia's domestic commercial vessel sector through public consultation to ensure the proposed changes to NSCV C4 are relevant, practical and fit for purpose in supporting vessel safety.

This report outlines AMSA's consultation approach, summarises the feedback received, and explains how that feedback informed the new edition of NSCV C4.



Consultation approach

AMSA seeks to maintain effective and respectful two-way communication with our regulated community. Consultation on the proposed changes to NSCV C4 was conducted through a dedicated online consultation hub over an eight-week period from **24 November 2025** to **6 February 2026**.

The hub provided public access to the draft revised NSCV C4 and supporting resources to help respondents understand the proposed changes and prepare submissions. These resources included a detailed table summarising the proposed changes by topic and a copy of the draft standard.

AMSA received substantive responses from across the regulated community, including industry associations, accredited marine surveyors, fisheries industry representatives, and government departments and agencies. AMSA thanks all participants for their contribution to the consultation process.

Proposed changes

The key proposed changes to the substantive chapters and supporting schedules of NSCV C4 are summarised below.

- **Requirements addressing lithium-ion battery fire risks** – focused on installed Electrical Energy Storage (EES) systems.
- **Categorisation of spaces:**
 - Introduction of new concept of “medium machinery space” to deal with machinery spaces smaller than 10m³ that fail to meet the threshold of a “machinery space”.
 - Definition of the fire risk categories for spaces containing portable equipment utilising lithium-ion batteries or powered by petrol engines.
- **Requirements for smoke detectors, alarms, and fire extinguishers:**
 - Updates to fire resisting division requirements including definitions, termination height above keel, and requirements for fuel tank boundaries in high-risk spaces.
 - Inclusion of interconnected photo-electric smoke detectors in accommodation spaces.
 - Specification of fire performance benchmarks for deck finishes, linings, ceilings, and doors.
 - Updated Foam Fire Extinguisher requirements to align with the introduction of fluorine-free extinguishers.
 - Clarification of treatment of wood-burning heaters.
- **Dangerous goods** – proposed removal of outdated NOHSC references and clarification of fuel carriage for tenders and auxiliary vessels. During consultation, AMSA determined that applying the Australian Dangerous Goods (ADG) Code was not practicable and retained the NOHSC reference. Fuel carriage for tenders and auxiliary vessels has been accommodated in Chapter 15.
- **Administrative and editorial updates** – updated references, removed outdated material and corrected typographical errors.



Consultation process

Respondents were invited to review the draft NSCV C4 and provide feedback on the standard as a whole. This allowed broad, open-ended comments rather than limiting feedback to specific provisions.

AMSA developed frequently asked questions and supporting answers to help staff respond to public queries while stakeholders prepared submissions.

In addition to public consultation through the online portal, AMSA directly invited comment from the UK Maritime and Coastguard Agency, a Technical Advisory Panel and accredited marine surveyors.

Other feedback

Before public consultation, AMSA consulted an internal panel of subject matter experts from across the organisation to inform the proposed changes. The draft standard was also made available for broader internal consultation before external consultation began.

AMSA also shared the consultation with the National Safety Committee, whose members are appointed for their expertise and capacity to represent stakeholder interests across the domestic commercial vessel regulated community.

For reference, the National Safety Committee's membership and Terms of Reference are available here: <https://www.amsa.gov.au/our-committees/safety-committees>



Consultation Feedback

Summary of submissions

AMSA received 21 public submissions from 20 individuals and organisations through the online feedback portal and direct email. The submissions primarily addressed the proposed changes and also provided broader feedback on the standard.

Key issues arising from feedback and AMSA responses

Respondents provided comprehensive feedback on the proposed changes to NSCV C4. A subject matter expert working group comprising staff from across AMSA considered the issues raised. AMSA's responses and consequential amendments to NSCV C4 are summarised below. References to tables, sections and schedules have been updated to reflect the finalised draft, rather than the external consultation draft.

General issues

Definitions

Several respondents requested additional detail or clarification for definitions used in the standard.

AMSA Response

AMSA considered the individual suggestions and updated definitions where clarification was required. Most updated items were new terms relating to lithium-ion battery installations.

Transitional vessels

Respondents raised concerns about applying current standards to transitional vessels built to previous standards. One respondent suggested transitional arrangements for vessels under construction or undergoing survey, and others requested clarification on the vessels to which the standard applies.

AMSA Response

Marine Order 503 requires AMSA to apply NSCV C4 to certain transitional vessels, depending on the change that triggered transitional status. This application is limited to cases where the change could materially affect the vessel's fire risk rating.

Transitional arrangements are not required for vessels under construction or undergoing survey, as the new edition of NSCV C4 will be available for 24 months before becoming mandatory.

AMSA will publish communications with the new standard to explain which vessels the updated requirements apply to.



Categorisation of spaces

The draft standard introduced a new “medium machinery space” category for spaces larger than the small machinery space threshold but containing machinery with similar fire risk. Respondents supported the inclusion but sought clarification on which fire safety requirements applied. AMSA added a table to the standard to clarify these requirements.

Structural fire protection

Several submissions indicated uncertainty within industry about how the standard should be applied. AMSA will address this through targeted communications before implementation.

Respondents provided positive feedback on updated figures in the standard and suggested further improvements.

AMSA Response

AMSA updated the standard’s galley surface figures in response to submissions, improving their accuracy and detail. Engine room bulkhead figures were restored to those used in the current edition.

Fire detection

Several submissions highlighted opportunities to improve industry understanding of fire detector requirements, particularly the distinction between monitored systems for passenger vessels and new requirements for vessels with berthed accommodation. AMSA will address this through targeted communications before implementation.

Fire preparedness documentation

AMSA received feedback that fire preparedness plans should apply to all vessels, rather than only higher-risk vessels currently subject to the requirement. Other feedback suggested the existing requirements may be too onerous for small vessels.

AMSA Response

AMSA will retain the current fire preparedness documentation requirements, which differentiate between lower-risk and higher-risk vessel and operation types. AMSA will consider future guidance on identifying vessels with lithium-ion battery installations to improve awareness for personnel responding to vessel fires.

Wood fired heaters

AMSA received universally positive feedback on the prohibition of wood-fired heaters in accommodation spaces.



Roll on – roll off (RORO) spaces

AMSA received feedback that applying RORO space requirements to small open vessels, such as landing barges, may be impractical.

AMSA Response

AMSA included a clause disapplying CCTV requirements for small RORO vessels.

Dangerous goods

Relevant federal codes

The draft standard replaced references to the National Code of Practice for the Storage and Handling of Workplace Dangerous Goods (NOHSC) with references to the Australian Dangerous Goods (ADG) Code. AMSA received feedback both supporting the change and raising concerns that a road- and rail-based code may not be suitable for maritime environments.

AMSA Response

The ADG Code addresses road and rail transport and does not expressly address maritime applications. Some matters, including bulk diesel fuel storage, are addressed under the NOHSC code but not the ADG Code.

Given the issues identified with applying the ADG Code, AMSA reverted to the current requirements. AMSA recognises that dangerous goods carriage requires further consideration and will address this through a dedicated future project.

Fire extinguishers

AMSA amended fire extinguisher requirements in response to the phase-out of firefighting foams containing PFAS. Several respondents commented on extinguisher size or rating, noting that 12 kg fire extinguishers are no longer commercially available in Australia.

AMSA Response

AMSA amended the fire extinguisher requirements to specify extinguisher ratings, rather than extinguisher weight, and to align with relevant Australian Standards for fluorine-free extinguishers.

Lithium-ion battery energy storage systems

AMSA received general support for introducing requirements for lithium-ion battery installations. Several respondents also identified a need for additional guidance on batteries installed on vessels, which AMSA will address through communications.

One respondent raised concern that treating all lithium battery technologies as presenting equivalent risk could negatively affect safety and innovation by discouraging safer technologies where lower-cost



alternatives exist. They also noted that the draft standard does not address non-lithium battery chemistries.

AMSA Response

AMSA recognises that the draft chapter does not address all battery chemistries. Lithium-ion batteries are the main commercially available battery technology currently used for electric and hybrid maritime operations, and were therefore the focus of the new chapter. Their risks are also better understood than those of more experimental chemistries due to their broader use over recent years. AMSA will monitor emerging battery technologies and consider future updates to the standard as other chemistries become more prevalent and their risks are better understood.

The draft standard requires battery systems with a storage capacity below 5 kWh to comply with ISO 23625. Some respondents stated that ISO standards must be purchased and that boat builders may not purchase them to check requirements, and requested that those requirements be reproduced in the standard. Another respondent considered the additional requirements for small battery installations unnecessary and suggested the standard rely solely on ISO 23625.

AMSA Response

AMSA references ISO and other external standards throughout the NSCV. Referencing standards, rather than reproducing their content, helps ensure requirements remain current when external standards are updated. Cost or effort is not an acceptable basis for not meeting NSCV outcomes. Standards Australia is developing a portal to provide public access to legislatively referenced standards, which may partially address this issue.

AMSA included requirements beyond ISO 23625 to ensure adequate safeguards during battery failure modes, particularly to prevent additional hazards to persons evacuating the vessel. ISO 23625 is goal-based and relies on designer and operator discretion in determining how to comply.

Several respondents stated that structural fire protection is difficult to fit on small vessels and should not be required.

AMSA Response

AMSA intends to retain the requirement as lithium-ion battery fires can burn intensely and thermal runaway can develop quickly. Structural fire protection provides time for safe evacuation which active suppression alone may not.

Structural fire protection materials are readily available with specified time ratings for aluminium and GRP bulkheads.

Direct responses

AMSA engaged directly with Transport for NSW to discuss its feedback and identify appropriate responses to the issues raised.

Public consultation resulted in several changes to the standard. Key changes are summarised in Table 2.

	• Several updates made to improve terminology consistency throughout the standard. • Note 3 to clause 18.8 updated to clarify that it applies to all bulkheads. • Clause 18.11.3 updated to clarify ventilation inlet and outlet locations and include a diagram.