

Fire safety proposals

The Ministry of Business, Innovation and Employment (MBIE) is considering new fire safety proposals that will make fire safety regulations easier to understand and apply.

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MBIE IS RESPONSIBLE for keeping the New Zealand Building Code up to date, aligned with international best practice and sufficiently flexible to allow industry to develop innovative solutions.

Fire regulatory system reviewed

Building Code clause C *Protection from fire* has been the focus of extensive review and consultation over recent years.

In 2014, MBIE initiated the fire programme in response to stakeholder feedback on the 2012 changes to Building Code clauses C1-6, Acceptable Solutions C/AS1-7 and Verification Method C/VM2.

The 2-year programme was seen by MBIE as an opportunity to review the whole fire regulatory system to test and discuss the issues. The outcome was several priority projects for MBIE to focus its efforts on.

Consultation closed recently

The first phase of the project initiatives was consolidated into the MBIE discussion document *Consultation on fire safety proposals*. Consultation concluded in mid-July, and MBIE is currently reviewing feedback from submissions made on the consultation.

The four proposals being considered are:

- increased flexibility in the use of internal surface finishes
- clarifying Building Code requirements for structural performance in fire

- updating the Verification Method C/VM2 and including more safeguards for tall buildings
- issuing guidance to assist designers and BCAs in demonstrating and assessing Building Code compliance of Alternative Solutions.

Key stakeholders involved

Prior to releasing the discussion document for wider consultation, MBIE received input on the proposals from key stakeholders. These included the New Zealand Fire Service, the Society of Fire Protection Engineers, Fire Protection Association of New Zealand, building control officials and architects.

MBIE also worked with international fire engineering experts to develop the proposals, keeping the New Zealand Building Code aligned with international best practice.

Proposals cover four areas

The new proposals are aimed at making fire safety requirements easier to understand and apply, promoting innovation in fire safety engineering and design and supporting collaboration between building professionals.

The details of the proposed changes to the fire regulatory system are to:

- remove the specifics of Material Group Numbers and critical heat flux from Building Code clause C3.4



- remove the term ‘structural stability’ from Building Code clause C6
- amend Verification Method C/VM2, including adding more specific criteria for tall buildings (>60 m building height)
- issue guidance under section 175 of the Building Act to provide a framework for undertaking Alternative Solutions for fire safety design.

More flexibility in use of Material Group Numbers

Currently, the fire safety requirements for internal surface finishes including walls, ceilings and floors are prescribed at Building Code level. The specifics within this clause removed the ability to undertake performance-based design in this area.

The fire programme review identified that this requirement was overly restrictive and does not allow for equivalent measures or specific uses.

The proposal is to remove the prescriptive requirements from the Building Code level and retain and clarify the criteria within the Acceptable Solutions and Verification Method.

This will result in changes to Building Code clause C3.4, Acceptable Solutions C/AS1-7 and Verification Method C/VM2.

Moving structural stability requirement

The existing Code clause C6 calls for structural stability to be maintained during and after fire. The fire regulatory framework review concluded that the stability of structure is the role of the structural engineer, therefore the fire engineer’s role became undefined.

Proposals in the consultation aim to help separate the roles and responsibilities of the structural and fire engineers to provide clarity. They would modify the Building Code, moving the requirement for structural stability from clause C6 *Structural stability* to clause B1 *Structure*.

The consultation proposed changes that would include modifications to Building Code clause C6 and resultant changes to definitions and provisions in Acceptable Solutions C/AS1-7 and Verification Method B1/VM1.

Verification Method C/VM2 updated for tall building safety

Verification Method C/VM2 provides a framework for fire safety design in New Zealand. MBIE included a proposal in its recent consultation to update the Verification Method and include more safeguards for tall buildings.

The proposal put forward included specific additional considerations for tall buildings such as escape provisions, fire-fighting access and facilities and appropriate fire resistance rating of structure.

The aim of the updates to the Verification Method is to ensure safety is paramount in tall buildings and that the requirements are not overly restrictive for other types of buildings.

More clarity for Alternative Solutions

The New Zealand Building Code is a performance-based regulation, which allows designers the freedom to propose innovative or Alternative Solutions provided they comply with the performance requirements of the Building Code.

Previously, there has been little guidance for demonstrating and assessing Alternative Solutions for compliance with the Building Code, especially for Alternative Solutions to Code clauses C1-6.

The fire programme concluded that a framework for demonstrating and assessing Alternative Solution proposals is required to assist designers and building consent authorities.

The proposed framework is intended to be issued as guidance under section 175 of the Building Act.

Two other priority projects

Two separate priority projects, also originating from the fire programme, were undertaken by MBIE over the past year.

Acceptable Solutions review

MBIE has drafted a proposal to merge Acceptable Solutions C/AS2-7 into a single document to be known as C/AS2. This idea received widespread support from stakeholders during a series of workshops in 2016.

To ensure the amalgamated document works in practice, MBIE conducted a pilot scheme that concluded in June 2017. Full public consultation on this proposal is expected later in 2017.

Guidance for supported housing

The supported housing project run by MBIE has been working closely with representatives from the supported housing sector.

The Ministry of Health, building consent authorities and the New Zealand Fire Service helped to develop a residential community housing design guide for fire safety. It is intended for housing funded by the Ministry of Health or with a recognised audit process.

The guidance document will be issued under section 175 guidance, and this is expected to go out for industry consultation later this year. ◀

Note MBIE will continue to review and refine aspects of the fire regulatory system as part of its regulatory stewardship role.