

In 2017, the Scottish government launched a review of building standards, with an initial focus on high-rise domestic buildings in the light of the Grenfell Tower fire. The purpose was to appraise their appropriateness critically in relation to fire risk and to ensure people's safety.

A ministerial working group was established, and in turn appointed three review panels to interrogate each of the following:

- building standards relating to fire safety
- compliance and enforcement of building standards
- the overall fire safety regime.

The role of the first review panel was to consider standards in the light of evidence from Grenfell Tower and provide an opinion on whether any changes were necessary, with specific consideration of fire safety guidance pertaining to domestic and residential buildings of 18m height or more.

The second review panel undertook a wider review of specific elements in the building standards system, including legislative requirements. The four key themes to be considered were verification, certification, enforcement and sanctions.

The third review panel was asked to consider whether the overall fire safety regime and regulatory framework in Scotland comprehensively protected residents of high-rise domestic buildings, and more specifically whether it was considered robust and fit for purpose.

Due to the breadth and depth of suitable knowledge and experience required for the review panels, representation was made to them by a range of stakeholders. After the reviews the system was generally considered fit for purpose; however, potential improvements to the standards and associated guidance were identified by the panels, which, following feedback and consideration, have resulted in series of recommendations from the ministerial group.

Building standards on fire safety

The following changes are to be made to the standards to improve building and fire safety:

- removal of reference to British Standards for 'reaction to fire tests' where European Standards are also cited
- external cladding to any building more than 11m tall must achieve a European classification of A1 or A2
- there will be an increased range of new buildings needing cladding to achieve a European classification of A1 or A2 regardless of height, including all care and hospital buildings and places of assembly
- full-scale fire testing to BS 8414 and BR 135 will remain as an alternative means of showing cladding compliance, if appropriate
- reference to the new BS 9414 will also be included, which covers an extended range of cladding system applications that already have a standard BS 8414 test and BR 135 report

- \bullet all domestic buildings greater than a particular height yet to be specified will require two stairwells
- fire service-activated sounders for evacuation of every flat should be installed in high-rise domestic buildings.

These changes will be enforced through amendment to existing legislation and are anticipated autumn 2019. Some further medium- to long-term recommendations are also likely to be adopted, including:

- extending the requirement for automatic fire suppression systems to additional building types, including certain houses in multiple occupation, new flats and all new-build social housing
- improved mechanism for verifying fire safety engineering applications for complex buildings, with a national hub proposed to validate these.

Building standards compliance

Improvements were also considered necessary to strengthen compliance with statutory procedural requirements and address non-compliant works on construction sites. These improvements include the following:

- support for local authorities to recruit, train and retain staff, with a more robust regime to be adopted for inspecting as-built construction, replacing the current focus on design intent
- greater onus placed on owners and developers to produce evidence of compliance
- better use of technological aids and platforms for sharing and streamlining information
- greater engagement with fire authorities at project milestones
- specific focus on fire-stopping, with shorter-term mandatory submission of photographic evidence and longer-term proposals for a certification of construction scheme
- pre-assessments and compliance plans required for higher-risk and more complex constructions, creating a golden thread of information
- licensing of contractors that undertake certain complex construction projects
- replacing temporary occupation certificates with more credible qualified completion certificates
- greater focus on enforcing penalties for non-compliance.

 Timeframes for the implementation of these recommendations have yet to be confirmed by the Scottish government.

Fire safety regime

The following short-term actions were identified and are expected be implemented through legislation before the end of November this year:

- specific fire safety guidance published for all residents of high-rise domestic buildings
- implementation of fire safety guidance in purpose-built flats and specialised housing
- introduction of guidance for fire risk assessments in Scotland
- clarification of roles and responsibilities for material storage, removal and enforcement of responsibilities in common areas of flats, with a targeted fire safety campaign in relation to same.

Some longer-term actions are also under consideration, including a publicly accessible database to record safety-critical information, such as where aluminium composite materials have been used on existing high-rise domestic buildings.

Legislation for fire and smoke alarms in domestic dwellings in Scotland is also set to change, resulting in the minimum tolerable standards already in place for private rented housing now being extended to include all homes. The new minimum criteria include:

- one smoke alarm in the room most frequently used for general daytime living
- one smoke alarm in every circulation space on each storey
- one heat alarm in every kitchen
- smoke and heat alarms to be ceiling-mounted and interlinked
- mains-operated alarms permitted, as are tamper-proof, long-life lithium battery-powered units
- alarms to be regularly maintained and tested, with a maximum life of ten years
- carbon monoxide detectors fitted in all rooms where a fixed combustion appliance or flue is present.

All property owners are being encouraged to adopt the standards at the earliest opportunity, with formal implementation in February 2021. It is advised that, thereafter, these standards will become mandatory at the point of sale or letting of properties, and any failure to comply with them will be subject to enforcement action by local authorities.

Impact of changes

All duty-holders will need to be aware of these impending changes and their implications, to ensure roles are suitably allocated and fulfilled and to avoid non-compliance. A commitment to investment will also have to be made if the reported resourcing challenges in local authorities are to be met, to support increased validation capacity.

Greater attention can be expected on design, specification, build quality and verification of construction and refurbishment projects, with a more rigorous sign-off regime anticipated. Robust records of design and construction information will also now be increasingly important to ensure an accurate paper trail for the verification and sign-off stages.

All stakeholders will need to consider how these changes will affect their projects, and specifically any programme and cost implications, because there will be less flexibility for value engineering of specifications. The changes will also create new roles and requirements, including a need for additional data collection, qualified verifiers, compliance plans and licensing of contractors for certain projects. Appropriate training and investment will therefore be necessary to ensure that professionals are equipped with any new skills that they require for their work, and to mitigate associated risk.

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Related competencies include: Fire safety