



# Learning from Holyrood

**Tony Jones**, principal structural engineer at **The Concrete Centre**, explains why Westminster must look north of the border to shape a fire safety policy that moves beyond the surface.

Respondents to the government's Technical Review of Approved Document B, including RIBA and the National Fire Chiefs Council, have highlighted the differing approaches of Holyrood and Westminster to updating fire safety regulations

**N**early two years on from the Grenfell Tower tragedy, ensuring our building regulations are safe and fit for purpose remains a work in progress.

The protracted nature of this process has undoubtedly frustrated some, not least of all Dame Judith Hackitt, who has voiced her own fears over a “loss of momentum” afflicting her recommendations. However, while the need for change is universally agreed, we are yet to reach a consensus on the form and extent of the changes required.

This is readily evidenced in conflicting responses to the government's Technical Review of Approved Document B. The call for evidence, which closed this March, is a reminder that the construction industry is fragmented and motivated by complex drivers. It also reminds us that the devolved governance of our home nations is much the same.

Many respondents, including RIBA and the National Fire Chiefs Council (NFCC), have highlighted the differing approaches of Holyrood and Westminster to updating fire safety regulations. While fire is not constrained by geographical or political divisions, these variations have significant implications for residents and those responsible for their safety on both sides of the border.

## Looking north

‘Never again’ is the mantra adopted following tragedy, yet the role of combustible cladding in exacerbating the Grenfell fire was sadly reminiscent of an earlier incident in North Ayrshire. In June 1999, the Garnock Court blaze swept

through a 14-storey residential block, taking one life and injuring many others. An investigation subsequently found that cladding had caused the fire's uncontrollable growth.

Accordingly, when the Building (Scotland) Regulations came into force in 2005, they specified that every building must be designed and constructed that ‘the spread of fire on the external walls of the building is inhibited.’ Holyrood was quick to report that no Scottish high-rise domestic buildings owned by registered providers or local authorities have the same aluminium composite material used on Grenfell Tower.

However, the Scottish government is now proposing to restrict the use of combustible cladding further. Its consultation proposes to introduce restrictions for residential buildings over 11m in height compared with the 18m ban recently mandated for England. This reduced trigger height for non-combustibility reflects the height the fire service is expected to reach from a ground level mounted water jet. The discrepancy is important, not only for businesses operating across the two nations, but for our understanding of how policy is often developed in response to specific drivers.

Instead, we should ensure that buildings regulations are created to address total risk, safeguarding against all eventualities rather than individual scenarios and failings highlighted by tragedy. This is essential if we are to tackle the industry ‘complacency’ criticised by Hackitt. Simply put, we can't wait for something to go wrong before moving to prevent it.



**Beyond ‘skin deep’**

Creating a safer system also means moving beyond ‘skin deep’ elements like cladding systems to address risk built into the core of our buildings. To achieve the holistic overhaul recommended in Hackitt’s independent review, there is one important area of the Scottish Technical Handbook that Westminster should look at carefully.

Stricter controls following the North Ayrshire tragedy also included a new provision against the use of combustible structural elements for residential buildings above 18m without a more complex fire safety engineering assessment in place. This restricts the use of materials like cross-laminated timber (CLT) on new projects as a means of protecting residents and communities from the potential dangers of collapse.

Unfortunately, despite the integral importance of structural safety, it is currently not high enough on the agenda for revisions to building regulations in England.

While the government has stated that it accepts Hackitt’s recommendation for “prioritisation of fire and structural safety while encouraging a holistic approach that considers building safety objectives”, structural safety has not been included in its proposed review of Approved Documents.

This is a considerable oversight. The current advice in our building regulations undermines the serious nature of any potential collapse with its ambiguity, stating only that a building’s stability should last for a ‘reasonable period’ in a fire. A ‘reasonable period’ is a frustratingly vague term, the definition of which depends on several factors, including differing evacuation policies and specific uses – a high concentration of elderly or vulnerable residents will need more time to escape.

In this vein, it was encouraging that the NFCC’s response to the Technical Review consultation acknowledged the importance of appropriate materials specification as a passive safeguard. It cited “the increased use of timber frame construction in dwellings and more significantly other buildings such as hospitals, care homes and high-rise residential buildings” as a cause for concern.

Building Regulation 8 also reminds us that designers must think not only of occupants but also of securing safety for ‘persons in or about’ a building.

As it stands, there is no difference in structural fire resistance requirements whether a building is isolated or urban, even though a collapse in a built-up environment could have far greater consequences.

**“It’s vital that protection extends to the heart of our buildings”**

While our building regulations shouldn’t react solely to specific incidents, they should encompass specific scenarios that heighten risk. All fire safety considerations, including structural, should therefore consider a building’s context to adequately reflect the industry’s responsibility and duty of care for communities.

**Building for the future**

While the construction industry is often portrayed as slow to embrace innovation, technology and new ways of working are helping us to meet demanding housing and infrastructure targets. However, it’s essential that the rush to modernise does not compromise our primary duty of care.

The implications of modern methods of construction like cross-laminated timber need careful examination. Respondents to the Technical Consultation, including RIBA and the NFCC, called for further investigation into its properties, with the latter commenting on the dangers of such products being used “without being adequately understood”.

Willmott Dixon recently reported that it had been forced to decline a contract due to being unable to get insurance to build a 15-storey CLT building. This caution can only be a good thing, particularly when the inadequacy of our current testing regimes is considered.

At present, tests for structural elements fail to consider any contribution to the fire load from the material being tested. This is despite some options, such as timber frames, being combustible and having the potential to feed a fire and impact its growth. Where structure forms part of the fire load, it should be mandatory to take this into account to enable informed specification decisions.

It’s vital that protection against combustible elements extends to the heart of our buildings rather than stopping at the surface. Enhancing structural safety must be a priority for Westminster, mirroring the progressive steps already taken in Scotland. ●

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