



Leaders' Committee

Fire Safety Update

Item no: 5

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Summary The tragic events at Grenfell Tower in June 2017 have prompted a sea change in approaches to housing policy and practice at a local and national level as well as significant changes to fire safety policy, as well as a developing programme of cross tenure remedial work. This paper details and summarises areas of ongoing work and development.

Recommendations Leaders' Committee is asked to:

- Note the contents of the report

Fire Safety Update

This report is split into four sections, containing updates on:

1. Immediate fire safety responses following the Grenfell Fire;
2. Enforcement in private sector blocks;
3. Funding and remedial work
4. The Hackitt Review Interim Report;

The report updates members on ongoing technical discussions with the newly renamed Ministry of Housing, Communities and Local Government (MHCLG) and reappraises the work that has taken place around fire safety.

1. Immediate Fire Safety Responses following the Grenfell Fire

- i. London Fire Brigade (LFB) inspection and waking watch protocol

The following information regarding the ongoing inspection programme since the fire was provided from the LFB directly as an update for Leaders in January 2018:

LFB have been working consistently to address the cladding issues which have arisen since the tragedy at Grenfell Tower. This work has been supported by specialist staff in three main phases.

- *During phase 1, 464 buildings were referred to LFB resulting in around 500 inspections of buildings with confirmed Aluminium Composite Material (ACM). These inspections were concerned with the general fire precautions in the buildings.*
- *Phase 2 involved 246 buildings which had failed full scale testing (163 of which had been inspected in Phase 1). 78 of these buildings were subsequently found upon inspection, to be under 18m or no longer cladded.*
- *The latest phase of work, phase 3, has so far seen 333 buildings referred to LFB which after data cleansing left 111 buildings for follow up action. Of these, 15 have been confirmed as failing the Cat. 3 cladding test.*

LFB continue to work closely with Local Authorities and key stakeholders, maintaining a focus on providing consistent advice on often challenging and individual issues. Being

mindful of the significant impact on both communities and Local Authorities, keeping people in their homes has remained a key priority. However, if lives of residents are at placed risk, LFB are prepared to take enforcement action, up to and including the prohibition of a building or parts thereof, under Article 31 of the Regulatory Reform Order.

A number of blocks across London as a result of the inspections have shifted to a simultaneous evacuation policy, with a waking watch in process. Landlords of all tenures have concerns about the ongoing costs of waking watch, but it remains in place in all buildings clad to assure resident safety. The National Fire Chiefs Council are now reviewing the waking watch guidance. Westminster and Southwark are represented on this review group, with additional input from Wandsworth. Where further buildings are found to be clad with ACM, they will be incorporated into the inspection programme with the information being passed to LFB directly from MHCLG.

Council and Housing Association buildings found to have ACM are being declad or, at a minimum, there are plans in place to declad the buildings. At least one borough (Hounslow) has completely de and re clad all buildings within their own stock containing ACM. Waking watch ceases once buildings are declad.

ii. Testing Programme

Since June, CLG and MHCLG have released a series of letters and additional guidance drawn from advice from the Independent Expert Advisory Panel, which is chaired by Sir Ken Knight. Following the conclusion of the large scale system testing process in September 2017, MHCLG released consolidated advice to building owners. This is appended for information (see Appendix 1). The testing programme, as members will know, was undertaken in two phases, initially testing the combustibility of ACM tiles and, following this, testing the fire spread of large scale systems. Boroughs and other landlords have had questions about whether there are any non-ACM systems that have been tested (in part to assure residents where buildings are being reclad). A further advice note on non-ACM systems was produced in response to these questions (see Appendix 2). The summary of the advice is that landlords should either ensure all elements of any cladding system are of limited combustibility, or can be shown directly to have passed the large scale test (BS 8414 standard). The MHCLG sponsored Building Research Establishment (BRE) programme of tests has not yet been open to tests of non ACM systems.

Boroughs have removed a small number of non ACM systems, including systems made up of expanded polystyrene insulation overlaid with flexible renders and glass-fibre reinforcing mesh.

iii. Pan-London Officer response

Following the Grenfell Fire, London Housing Directors appointed Simon Latham from Sutton to chair the Fire Safety Sub Group. This group has regularly met since June, initially to discuss mutual aid and to provide a forum for discussion of the MHCLG testing programme. The group also provided extensive feedback to the Hackitt Review (see Appendix 3) and is currently considering its response to the Interim Report. The group includes representation from LFB, the Greater London Authority (GLA) and, more recently, the g15. It has, therefore, been a useful forum to air technical issues such as publication of Fire Risk Assessments, provision of information to both MHCLG and the GLA and management of waking watch. Latterly, the group has focused on the challenge of enforcement in private sector blocks, and ensuring MHCLG understand the difficulties (practical, legal and financial) in using Local Authority powers in relation to landlords of buildings where there is ACM.

2. Enforcement in private sector blocks

With a few exceptions, the initial inspection and decladding programmes involved buildings managed by social landlords (either local authority or registered providers). MHCLG's testing programme was always open to all building owners, but only a small number of large scale private landlords came forward for testing in the initial weeks and months after the fire.

Since then, a number of additional buildings have been identified, predominately through local authority or LFB activity. Where landlords have co-operated, this has led to the institution of a waking watch. However, many landlords have yet to respond to queries about cladding or are actively not taking remedial action.

The Fire Safety Sub-Group has had extensive discussions with MHCLG about the enforcement issues, focusing on the following points:

i. Locating the responsible person

For many buildings, the ownership is not simple to find even with the use of Land Registry records. This is particularly a problem where overseas shell companies

are involved. MHCLG are discussing with HMRC if information can be shared with councils.

ii. Ascertaining if ACM is present

While it is reasonably simple to ascertain if a building is not clad with ACM, there are a number of cladding materials that look similar. To be certain, a section of the cladding must be removed. Therefore, if a building owner does not respond to queries about the cladding (and the information is not available through Building Control) a local authority may wish to take a sample. MHCLG wrote to all local authorities in late 2017, following discussions with the Fire Safety Sub-Group, outlining its view that powers under the Housing Act 2004 would allow councils to take such a sample.

There are some complications with this however. First, there is no way of recharging the cost of taking samples in this way as the legislation was not designed for work on this scale. Given the costs involved, this presents already under resourced Private Sector Housing Teams with a considerable problem. Second, issuing notices and using powers under the Housing Act 2004 requires a qualified Environmental Health Officer. However, understanding of the cladding systems involved is the remit of Building Control. Both are areas of skills shortages in local authorities.

iii. Compelling remedial work where ACM is present

In the same letter MHCLG maintained the Housing Act 2004 could also be used to compel remedial work. The ownership issue is relevant here again. Additionally, the sub-group was able to communicate to MHCLG the length of time normally involved in enforcing under this Act.

The key issue here is that while Housing Act 2004 powers could be relevant in enforcement, they were not designed for this purpose and there are considerable difficulties where landlords are uncooperative. This was highlighted in the response to the Hackitt Review by both London Councils and London Housing Directors. The other crucial issue with private sector stock is the cost of the works and how this is met, or should be met.

3. Funding and remedial work

i. Local Authority / Social stock

A number of boroughs have approached MHCLG requesting funding for remedial works and other fire safety works. MHCLG has stated that funding will only be available for 'essential' as opposed to additional fire safety works. Beyond decladding, it is currently unclear exactly what constitutes 'essential'. MHCLG officials recently reported that ten councils had formally applied (with a number more having contacted the Ministry) for support. Announcements on flexibilities to be allowed would shortly be made in respect of four of those applications. It is not thought that any of the councils are London boroughs. The funding made available is, it is believed, through flexibilities (e.g. increased borrowing) rather than new funding. In the case of housing associations that do not have funds available for the work, they had been advised to speak to the social housing regulator. The progress of any such bids has not been made public at the time of drafting this report.

ii. Private Stock

Some larger landlords and providers have made it clear that they will foot the bill for any work in blocks that they own and not re-charge leaseholders. However, as the recent high profile Croydon case (involving First Port Property Services) demonstrates, other landlords are charging leaseholders, in advance, for the cost of the work. Given the cost per unit is considerable (between approximately £13,300 and £31,300 per household), leaseholders are challenging the costs. There is an initial hearing on the 6th February at the first tier property tribunal. MHCLG has stated that it would like the private sector to 'follow the lead of the social sector and not pass on costs. It has provided additional funding to LEASE to assist with legal advice nationally. There are likely to be other similar cases. In Slough, the council has actively acquired a formerly privately managed rental building and will carry out improvement works itself.

As a result of such cases, there remain significant concerns about who will bear the cost of remedial work in private stock. This is unlikely to be resolved swiftly as more cases come forward, and legal action (such as the property tribunal process

entered into my leaseholders of First Port Property Services) may take some time to complete.

4. Hackitt Review interim report

The work of the review to date has found that the current regulatory system for ensuring fire safety in high-rise and complex buildings is not fit for purpose. This applies throughout the life cycle of a building, both during construction and occupation, and is a problem connected both to the culture of the construction industry and the effectiveness of the regulators.

The interim report, released December 2017, sets out initial early stage findings and sets the direction of travel for the next stage of the review. It is not the role of the Hackitt Review to itself set new detailed building regulations, but rather to highlight and define the problems with the current system and how this can be improved. Even before the full report (which is set to follow in Spring 2018), the Home Office has informally stated it will be looking at the Regulatory Reform (Fire Safety) Order 2005, and MHCLG have indicated they will be considering the presentation of 'Approved Document B' imminently, as recommended as an immediate measure in the report. Dame Judith Hackitt also makes clear in the report and publicity surrounding it that landlords owning buildings that have ACM cladding that has failed large scale tests should absolutely not wait for the outcome of the full review to remove it.

This interim report is welcome, and boroughs are working closely with colleagues across the capital to take the necessary action to ensure the safety of all Londoners. There is agreement that the current system is not fit for purpose and efforts are underway to clarify regulations, roles and responsibilities and improve systems of compliance and quality assurance. It is essential that local and central government work together and that this work is properly supported and fully funded. In the London Councils' response to the Hackitt Review, concerns about the regulations being overly complex for most of the people who use them were highlighted, as was confusion about the roles and responsibilities of different actors working within the system.

Key findings of Hackitt Review Interim Report

1. Regulation and guidance

Current regulations and guidance are too complex and unclear. This can lead to confusion and misinterpretation in their application to high-rise and complex buildings.

2. Roles and responsibilities

Clarity of roles and responsibilities is poor. Even where there are requirements for key activities to take place across design, construction and maintenance, it is not always clear who has responsibility for making it happen.

3. Competence

Despite many who demonstrate good practice, the means of assessing and ensuring the competency of key people throughout the system is inadequate. There is often no differentiation in competency requirements for those working on high-rise and complex buildings.

4. Process, compliance and enforcement

Compliance, enforcement and sanctions processes are too weak. What is being designed is not what is being built and there is a lack of robust change control. The lack of meaningful sanctions does not drive the right behaviours.

5. Residents' voice

The route for residents to escalate concerns is unclear and inadequate.

6. Quality assurance and products

The system of product testing, marketing and quality assurance is not clear.

The final report is due to be published in spring 2018. London Councils will continue to feed into the work. The report will not in itself detail the technical specifics of a new system, rather it will highlight the inadequacies and problems with the current framework and make recommendations for where regulations should be reviewed or strengthened. Government responses to these proposals may not be limited to a single response but via a range of potential processes (for example the element on 'residents' voice' may be addressed by the Private Member's Bill Homes (Fitness for human habitation)).

Financial Implications for London Councils

There are no financial implications for London Councils arising from this report.

Legal Implications for London Councils

There are no legal implications for London Councils arising from this report.

Equalities Implications for London Councils

There are no equalities implications for London Councils arising from this report.

London Councils

The voice of London local government

Post-Grenfell fire safety remedial costs in London

London Councils represents London's 32 borough councils and the City of London. It is a cross-party organisation that works on behalf of all its member authorities regardless of political persuasion.

Background

This briefing provides detail about the work that London boroughs are carrying out, or plan to carry out in response to the Grenfell Tower fire, gained from a survey of London boroughs conducted by London Councils.

London boroughs are committed to doing what is necessary to ensure the safety of residents and are pressing on with this work in the spirit of that commitment. London boroughs have a central role in ensuring the wellbeing and safety of all of residents, and this has been the focus of all boroughs since the fire. Whilst some boroughs may currently have the capacity to meet these significant costs up front through HRA reserves, headroom or major repairs reserves it is evident that there will be an impact on boroughs' existing plans for repairs, maintenance and building new homes. Boroughs are clear that there is therefore a need for government assistance, increased flexibilities or changes to the HRA borrowing cap.

The findings also highlight the challenges and uncertainty associated with awaiting any changes to building regulations and results of specialist surveys and inspections.

Key findings

- Across 21 respondents, the **total potential cost of remedial work is estimated at £402 million**, including £53 million of immediate remedial work in 2017/18
- Remedial costs include the **installation of sprinklers (£262 million)**, **other costs (£90 million)** and **cladding work (£53 million)**
- **7 boroughs intend to fit sprinklers** to buildings that do not currently have them, **11 boroughs are undecided** and **3 boroughs do not intend to fit sprinklers**.
- Across 20 respondents, a **£381 million potential remedial cost** compares to **£600 million of HRA reserves**, **£454 million major repairs reserves** and **£1.1 billion of HRA headroom**. **HRA reserves from those surveyed ranged from £1.3million to £130.9 million**. Boroughs frequently commented that reserves and headroom were already tied up in existing projects, such as maintaining existing stock and building new homes.
- Boroughs identified **£8 million of immediate one-off costs in response to the Grenfell fire**, including additional staff time and the cost of specialist surveys / inspections.

Response rate

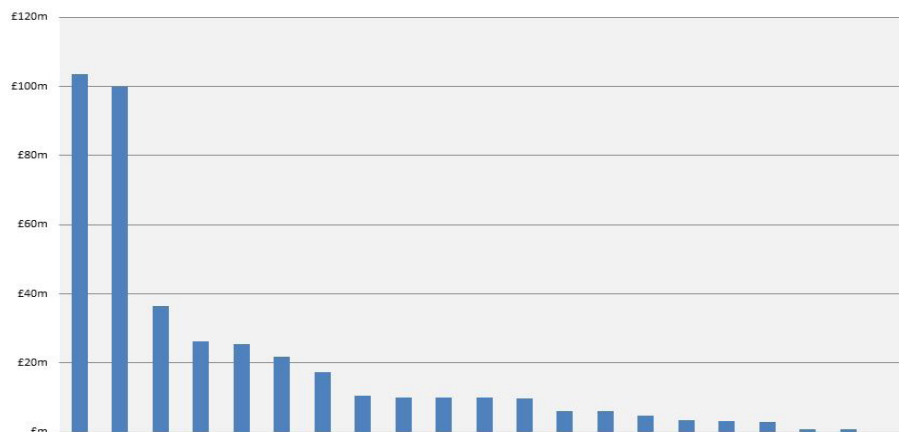
Responses were received from 25 boroughs, out of which 22 boroughs collectively own 1,569 medium / high-rise residential buildings of six stories or more.

Remedial cost estimates provided are provisional and subject to change; in particular, the actual cost will be determined by the results of specialist surveys and any changes to building regulations.

Total remedial costs

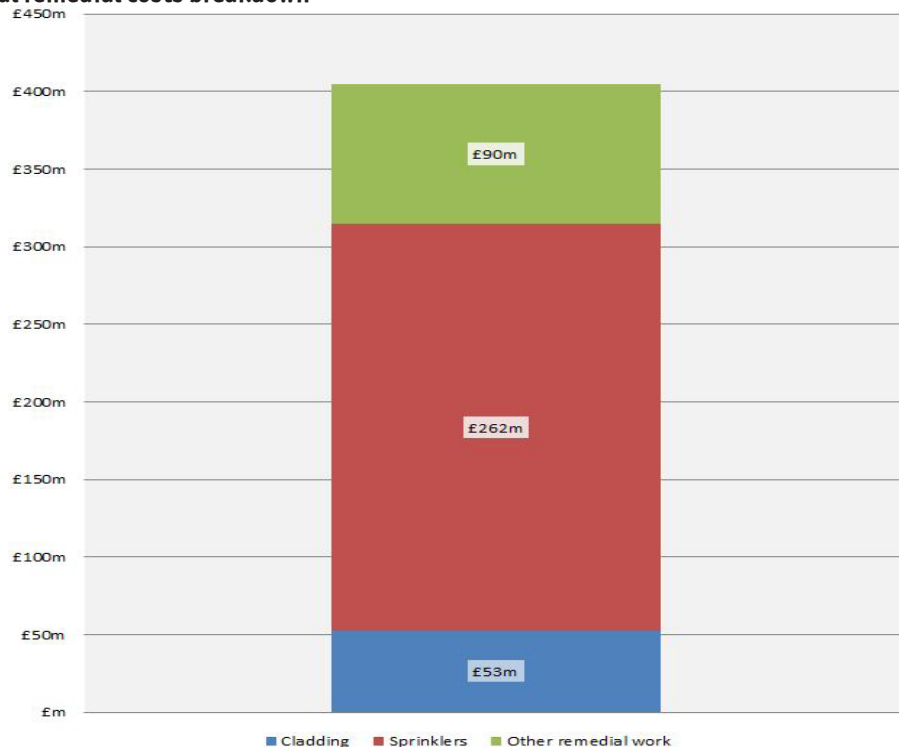
Across 21 boroughs providing a total remedial cost estimate, potential costs totalled £402 million, including two boroughs with estimates around £100 million (*figure 1*). There remains significant uncertainty over the exact timing of remedial work, but £53 million of remedial work has already been identified for 2017/18.

Figure 1 - total potential remedial costs by borough surveyed



The installation of sprinklers makes up £262 million of potential remedial costs (65%), followed by £90 million of “other remedial work” (22%) and £53 million of remedial cladding work (13%) (*figure 2*).

Figure 2 - total remedial costs breakdown



Remedial work to cladding systems was significantly more likely to fall as a cost in 2017/18 than sprinklers (*table 1*). The timing of sprinkler installation is often still dependent on the results of ongoing specialist surveys, whereas firmer decisions may already have taken on re-cladding work.

Table 1 – remedial cost timescales by type of work

	Total cost	Of which 2017/18	% in 2017/18
Cladding	£52.7m	£21.4m	41%
Sprinklers	£261.9m	£7.9m	3%
Other remedial	£90.4m	£24.0m	27%

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Cladding – cost per block

38 blocks across 12 boroughs are expected to require remedial work to cladding systems, with a total estimated cost of £53 million. This implies an aggregate cost per block of £1.4 million and, at an individual borough level, the implied cost per block ranges from £385,000 to £3.3 million.

Sprinklers – cost per block

The installation of sprinklers is the most significant aggregate cost. There is currently a high degree of uncertainty when specialist surveys are ongoing, but some boroughs provided estimates of what the cost would be if the decision was made to install sprinklers in all blocks.

Six boroughs provided data showing the estimated cost per block of installing sprinklers: across 265 blocks in these boroughs, the aggregate cost totals £113 million. This implies an average cost of £426,000 per block, with the implied cost per block ranging from £188,000 to £615,000 at individual borough level.

The exact scope of sprinkler installation is likely to be a key determinant of cost: one borough provided a sprinkler installation estimate of £2 million for communal areas, but suggested that this could rise to £4.7 - £5.6 million if sprinklers were also installed in individual properties.

Other remedial costs

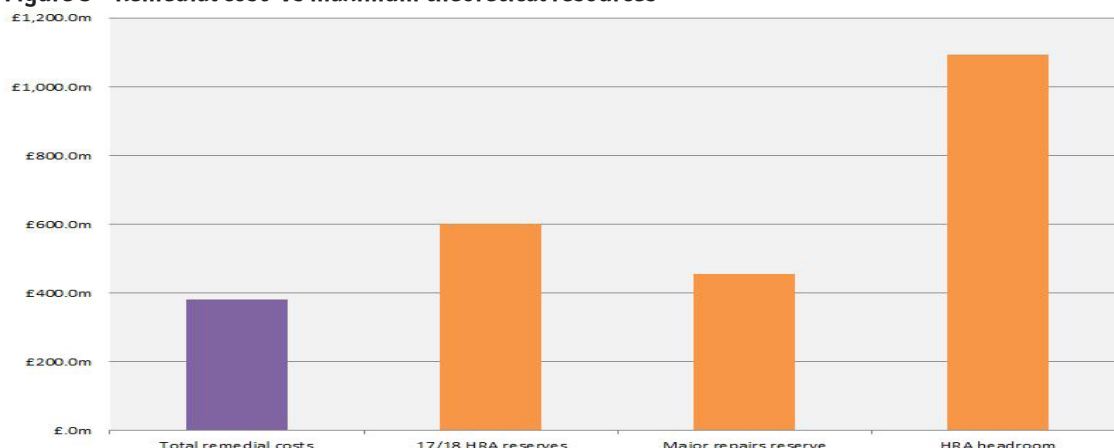
The cost of upgrading fire doors, including communal doors and front doors, are included by nine boroughs. Other remedial costs include:

- Emergency lighting
- Automatic ventilation
- Mobility scooter storage
- Dry risers
- “Multi-element fire safety work”
- Electrical upgrades
- Duct cleaning and local LEV and kitchen extractions
- Fire-stopping work to roofs
- Fire compartmentalisation
- Fire detection and smoke extraction equipment

Funding

20 boroughs provided data on their current financial position and an estimate of total remedial costs. Across these boroughs, potential remedial costs totalled £381 million, compared to total HRA reserves of £600 million, major repairs reserves of £454 million, and HRA borrowing headroom of £1.1 billion.

Figure 3 - Remedial cost Vs maximum theoretical resources



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The level of resource available to fund remedial work will be significantly lower than current levels of reserves and headroom. Many boroughs will be funding remedial works using HRA reserves, HRA headroom and major repairs reserves. Crucially, most of this funding is already committed to or earmarked for other projects and will lead to delays or cancellations. This included major repairs or works programmes, estate renewal or regeneration schemes, new home building programmes. In order to do all of these things additional borrowing or direct funding would be needed from government or an extension to the HRA borrowing limit.

Illustrative comments from boroughs include:

“Reserves are committed over the next five years”, the major repairs reserve is “committed to be spent in 2017/18”, and “all borrowing requirements are committed over the next three years”. Therefore, “government grant or raising of the debt cap would be required for us to carry out our planned major works programme and estate renewal schemes.”

“Most HRA capital resources are committed to support the provision of new housing supply, part funded by retained RTB receipts, as well as to fund the significant capital works programme that it is necessary to undertake to the Council’s existing housing stock.”

“Currently the HRA funding is fully committed on maintenance and improvements works to existing stock and the regeneration programme. Additional funding will need to be sourced or made available by Government.”

“[Method of funding] to be determined - existing resources are already predicated against current investment needs of the stock and new build programme, therefore programme will need to be re-prioritised and re-profiled to meet new cost pressures without direct government assistance or relaxation of current funding/borrowing restrictions.

“Works will be funded from a mixture of resources including Major Repairs Reserve and borrowing insofar as needed. Leaseholders will also be expected to contribute their chargeable share. Ultimately the use of any reserves now will require additional borrowing to fund future regeneration schemes so it could be argued that indirectly it is all borrowing”

Non-remedial costs

One off-costs

In addition to direct remedial costs, boroughs were also asked to identify any other immediate one-off costs in response to the Grenfell fire. In total, £8 million of immediate one-off pressures were identified, with costs tending to fall into three main categories:

- Staff costs (e.g. fire wardens, resident liaison officers, project managers, overtime)
- Specialist surveys / fire risk assessments / fire safety study / external consultants
- Communication with residents (e.g. letters to residents, flyers)

Ongoing costs

It is not possible for boroughs to quantify ongoing costs at this stage, these will be dependent on the outcome of the public inquiry and any new regulations. Potential ongoing cost are more intrusive / enhanced fire safety assessments (FSAs) and other costs may include:

- Cost of servicing new sprinkler system
- Housing, planning, building control, repairs and maintenance
- Legal
- Private housing
- Gas safety checks
- Restrictions on who can be allocated property above a certain height, impacting on temporary accommodation budget

Conclusion

The results of this survey demonstrate the significant costs of ensuring the safety of tower blocks and the increased pressures that these will place on London boroughs and their ability to maintain existing stock as well as build new homes. The government announcement to return to increasing social rents by CPI+1 from 2020 is welcome but as many of the costs of the fire safety remediation works are immediate this will not assist boroughs in the short term.

London Councils are therefore calling for the consideration of measures that would make meeting the costs of the necessary works more achievable, such as additional government funding, increased flexibilities for the use of Right to Buy receipts or the relaxation of the HRA borrowing cap.

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London Councils represents all 32 London boroughs and the City of London. The Mayor's Office for Policing and Crime and the London Fire and Emergency Planning Authority are also in membership

Response to the Independent Building Regulations Review

Representation by London Councils

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Summary of recommendations

London Councils represents London's 32 borough councils and the City of London. It is a cross party organisation that works on behalf of all its member authorities regardless of political persuasion

1. Revisions should be brought forward to Approved Document B to provide improved standards and make them more understandable to all within the building and development process – including tenants and residents.
2. The policy within Approved Document B stipulating greater fire resistance above 18 metres should be reduced to 12 metres to reflect the current capabilities of the London Fire Brigade.
3. DCLG should clarify the definition of common parts of the building.
4. Amendments should be brought forward to the Housing Act 2004 to strengthen local authorities' powers to tackle potential fire hazards.
5. Approved Inspectors should be required to adhere to the same standards as Local Authority Building Control
6. Regulatory changes should be brought about to ensure that construction work on a development should not begin without prior acquisition of a certificate of approval.
7. Clerk of works to oversee all development/renovation works, and will be responsible for ensuring that all work has been undertaken properly.
8. Mandatory membership for FRA assessors of an accredited fire risk assessment scheme.
9. HCA Tenant Involvement and Empowerment Standard to be updated to incorporate specific standards around fire safety.
10. The interim report should outline which cladding systems will be acceptable following the conclusion of this review.
11. The review should recommend that remedial works needed to make tenants safe and feel safe should be funded by central government.
12. The substitution of desktop studies for fire tests should be stopped.
13. We would support the introduction of a separate standard for high-rise development.

The context

The tragedy that unfolded at Grenfell Tower in June remains very sharp in the minds of all in local government – council leaders, ward councillors and officers.

Since the fire, the London boroughs have been engaged in a substantial programme of work to ensure that residents of high-rise buildings in the capital are safe and feel safe. We have worked with the Department of Communities and Local Government (DCLG) and their Building Research Establishment (BRE) testing programme to ensure that we can, as rapidly as possible, identify high-rise buildings with unsafe cladding systems. We have taken emergency action in close collaboration with the London Fire Brigade (LFB) to guarantee our stock is safe, as well as working with housing associations and private landlords.

This programme has required a massive and ongoing engagement with residents, both in the high-rise blocks in London with unsafe cladding, and tenants in other high-rise blocks who have concerns about their safety after Grenfell. We are acutely aware of their concerns about the homes in which they live. We know this through their ongoing interactions with their local councillors and front-line housing staff, as well as where we are working with them and the LFB to carry out specific emergency work.

Our experience of this programme has taught us that there are significant shortcomings in the regulatory system. It is very difficult to ensure that residents feel safe when there is little confidence that we have a regulatory system which can ensure they are safe.

To give one example, some boroughs have already removed unsafe cladding identified by the testing programme from high-rise buildings that they own, and others are in the process of removing it. However, there is as yet no confidence as to which cladding systems we can replace these with safely.

Therefore, we supported the Chair of the Local Government Association, Lord Porter's call for an urgent review of building regulations and welcomed the Secretary of State's establishment of the Independent Review of Building Regulations and Fire Safety, and your appointment as its chair.

It is the responsibility of all levels of government, the public services and the building and construction sectors to work together to ensure that such a disaster can never happen again. Local government will have lessons to learn. We hope that your initial findings will enable us to undertake the remedial actions that will ensure residents are safe and feel safe. We also hope you will be able to draw definitive conclusions around the systemic failures in the building regulations that the tragedy at Grenfell Tower, and the subsequent fire safety testing programme have very clearly highlighted so we can develop a regulatory system fit for purpose for the future.

London Councils' response draws upon the London Housing Directors' Group response. This group has the professional experience required to respond in detail. Their response is taken from meetings conducted with separate boroughs with officers working across building control, housing strategy and policy, housing management and Housing Act 2004 enforcement roles. They have also met with Local Authority Building Control, and received feedback from their Fire Safety Group which includes representatives of the LFB, LGA, DCLG and the Greater London Authority.

In addition to our full response we believe it is necessary to make these overarching observations about the leadership and resources which we will need to ensure that all Londoners living in high-rise are safe and feel safe.

Leadership

The shortcomings in the building regulations were revealed by the Lakanal House Fire in 2009 where six people died. They were crystallised by the Coroner in her 2013 Inquest. In particular she noted in her Rule 43 Letter to the then Secretary of State, Eric Pickles, that Approved Document B is 'a most difficult document to use' and recommended that it be reviewed by the DCLG. Since the Lakanal fire in 2009, Southwark Council has taken urgent and substantial action to improve the safety of all of its stock. Since the Coroners Rule 43 Letter in 2013 there has been no review of Approved Document B.

In addition, in 2013 the Government announced its intention to reduce regulation, in all areas affecting business and not just construction, by using a 'one in, two out', rule of thumb. This does not create risk based regulation which balances the nature and probability of the risk against the regulatory burden and resources to enforce it. Instead it risks creating a culture which sees less regulation as good, with little or no weight given to the risks which we as a society are attempting to guard against.

Taken together, the lack of urgency in responding to the formal recommendations of the Coroner in the wake of a fatal fire, and primacy on deregulation for its own sake have helped create a culture which mitigates against an effective and efficient regulatory system and fire safety.

We shall touch briefly upon the implications for local political leadership below.

Resources

Local authorities have a key role in building regulation and fire safety. They have been attempting to meet their legal duties in a very challenging financial landscape. Since 2010-11, core funding from central government will have fallen by 63 per cent in real terms over the decade to 2019-20.

While local authorities continue to believe that they can deploy sufficient resources to deliver their statutory responsibilities, these resources have become increasingly attenuated.

The number of people working for local authority building control and in environmental health enforcement teams has been decreasing. There are many excellent Approved Inspectors, however, the creation of competition between them and local authority building control serves to undermine the sustainability of local authority building control. It undermines the desired outcome of residents being safe. For example, the legislation does not require Approved Inspectors to share information with the relevant local authority, or even central government, about the buildings they have certified. Limiting access to the relevant information therefore has a further impact on local authorities capacity to deliver on their statutory role to enforce standards in building control.

In addition to reductions in core funding, local authorities have faced limitations on their Housing Revenue Accounts (HRA) that have reduced the scope for delivering new housing development as well as improvements and renovations in their existing stock. The 1 per cent reduction in social sector rents, which has been in place since 2016/17, has left a shortfall of £800million in London authorities' HRAs (even with the return to CPI +1% in 2020). Furthermore, the imposition of a cap on HRA borrowing has left insufficient headroom for investment in councils' housing stock.

Given the limited and reducing resources available, local authorities have been required to prioritise their HRA activity between the objectives of delivering new and much needed housing supply while also improving the standard of their existing stock, maintaining decent home standards, and other landlord duties.

In summary, for any regulatory system to succeed it requires leadership and resources that places a premium on the outcome - that Londoners living in high-rise blocks are safe and feel safe.

In the wake of Grenfell, local leaders may consider whether or not we have articulated our concerns regarding our ability to deliver building regulations and fire safety without the required resources or the necessary standard of building regulations confidently, or powerfully, or stridently enough, or whether we have placed too great a premium on being seen to step up to the plate come what may.

Responses to consultation questions

Q1 To what extent are the current building, housing and fire safety legislation and associated guidance clear and understood by those who need to follow them? In particular:

- *What parts are clear and well understood by those who need to follow them?; and, if appropriate*
- *Where specifically do you think there are gaps, inconsistencies and/or overlaps (including between different parts of the legislation and guidance)? What changes would be necessary to address these and what are the benefits of doing so?*

Approved Document B

It is the London boroughs' view that the current building regulations, particularly Approved Document B, causes significant confusion. It was the view of the Coroner leading the inquest into the Lakanal House fire in her Rule 43 letter to the Secretary of State for Communities and Local Government (dated 28 March 2013) that Approved Document B was "a most difficult document to use". In her letter she outlined a recommendation that it be reviewed to ensure that it:

- "Provides clear guidance in relation to Regulation B4 of the Building Regulations, with particular regard to the spread of fire over the external envelope of the building and the circumstances in which attention should be paid to whether proposed work might reduce existing fire protection.
- Is expressed in words and adopts a format which are intelligible to the wide range of people and bodies engaged in construction, maintenance and refurbishment of buildings, not just to professionals who may already have a depth of knowledge of building regulations and building control matters.
- Provides guidance which is of assistance to those involved in maintenance and refurbishment of older housing stock, and not only those engaged in design and construction of new buildings."

The Secretary of State's response to the Coroner noted that a process of "simplification" would be brought forward as part "of a formal review leading to the publication of a new edition of Approved Documentation in 2016/17". The response also noted that "the design of fire protection in buildings is a complex subject and should remain, to some extent, in the realm of professionals".

This was a missed opportunity to have addressed the weaknesses within Approved Document B. We think that the Independent Review of Building Regulations may wish to understand further how far advanced the review promised by the former Secretary of State was, and – in particular – examine whether there are sufficient mechanisms in place to ensure that government brings forward revisions to building regulations where they are needed.

Further to the lack of clarity in Approved Document B, there is a clear contradiction in regards to combustibility standards in high rise development. Current regulations require a higher standard of fire resistance for compartmentalisation above 18 metres (30 minutes resistance up to 18 metres, and 60 minutes above this). However, currently, the London Fire Brigade equipment can only reach a height of 12 metres. The regulations should be revised to reflect the current capabilities of the fire brigade, and create a consistent standard between all tenure types (private and publicly owned) and between new and existing build.

Regulatory Reform Order

There are also ambiguities in the Regulatory Reform (Fire Safety) Order, particularly in relation to the definition of 'common parts' of the building. The coroner's letter following the Lakanal House fire also addressed this point, outlining that "there remains uncertainty about the scope of inspection for fire risk assessment purposes which should be undertaken in high rise residential buildings." She further recommended that "Government provide clear guidance on the definition of "common parts" of buildings containing multiple domestic premises...". The ambiguities around the definition of common parts has been further addressed by the government, with the main source of clarity regarding this being a Local Government Association publication (funded by DCLG), 'Fire Safety in Purpose-Built Blocks of Flats', which was published

in May 2012, prior to the Coroner's report. In our view, clarity around the definitions of common parts is still needed.

Housing Act 2004

The Housing Act 2004 should be strengthened so local authorities can deliver higher standards of fire safety. At present, under the Housing Health and Safety Rating System (HHSRS), local authorities are unable to take action to ensure that items imperative to the integrity of a block's fire protection system – such as fire resistant doors – are adequate unless it can demonstrate the issue poses a risk to a person within a year within a given dwelling. In this scenario, the probability of fire is so low that it often makes it difficult to enforce.

Approved Inspectors

London Councils is concerned that the role of AIs has led to problems with implementing the building regulations effectively. While there are a number of excellent AIs operating in the sector, the standards by which AIs operate are less than those for local authority building control. For instance, there is no requirement for an AI to examine plan details, issue a plan certificate or even attend site to inspect work in progress. AIs are permitted to exclude considering parts of a building carried out by competent persons scheme. AIs can accept work with nothing more than the identification of the site and allow work to continue with no obligation to have assessed and approved work within a pre-set time. Crucially, AIs are also not required to share any information on their work with local authorities or even the Government.

While AIs do require a licence from the Construction Industries Council (CIC) to operate (renewed every three years), an AI has never lost a licence for breaching the CIC code of conduct. Despite this, feedback from residential Environmental Health teams suggests a disproportionate number of hazards are found in homes approved by AIs. The market pressures within the sector, and the lower standards required of AIs, are concerning for local authorities. While we clearly acknowledge that the introduction of AIs into building control has had a significant impact on local authority income in the sector, the evidence is that the impact of AIs has been to reduce standards in the sector and create a less rigorous regime for ensuring that high standards are achieved. There is also a skill shortage of building inspectors generally, exacerbated by the 'poaching' of local authority staff.

Certificate of approval

At present development, including high-rise development can begin without a certificate of approval provided by the relevant body (although the building may only be occupied once a certificate has been provided). This should be revised to ensure the relevant fire safety plans have been signed off prior to construction commencing.

Recommendations

1. Revisions should be brought forward to Approved Document B to provide improved standards and make them more understandable to all within the building and development process – including tenants and residents.
2. The policy within Approved Document B stipulating greater fire resistance above 18 metres should be reduced to 12 metres to reflect the current capabilities of the London Fire Brigade.
3. DCLG should clarify the definition of common parts of the building.
4. Amendments should be brought forward to the Housing Act to strengthen local authorities' powers to tackle potential fire hazards.
5. AIs should be required to adhere to the same standards as Local Authority Building Control.
6. Regulatory changes should be brought about to ensure that construction work on a development should not begin without prior acquisition of a certificate of approval.

Roles and responsibilities

Q2 Are the roles, responsibilities & accountabilities of different individuals (in relation to adhering to fire safety requirements or assessing compliance) at each key stage of the building process clear, effective and timely? In particular:

- *Where are responsibilities clear, effective and timely and well understood by those who need to adhere to them/ assess them?; and, if appropriate*
- *Where specifically do you think the regime is not effective?*
- *What changes would be necessary to address these and what are the benefits of doing so?*

Generally, the London boroughs work very well with the London Fire Brigade (LFB), and the RRO requiring consultation with the LFB in London on new buildings and a material change to existing buildings operates well. Most boroughs have an excellent working relationship with their LFB local borough commander. On a pan-London basis, local authorities have worked very closely to coordinate the response – including building inspections – following the disaster at Grenfell Tower. This builds on a history of good working. In 2013 a joint protocol was developed between the London boroughs and LFB to codify the divisions of responsibility in regards to enforcing the Housing Act 2004 and to seek to overcome the gaps and ambiguities in the regulatory framework.

Q3 Does the current system place a clear over-arching responsibility on named parties for maintaining/ensuring fire safety requirements are met in a high-rise multi occupancy building? Where could this be made clearer? What would be the benefits of doing so?

Many parties can be involved in large developments, so it is difficult for one person to be in control of the overall fire safety of the site. Building control is unable to be on site at every point of development and assess every fitting as it is made. We therefore believe it should be mandatory for a clerk of works to be employed on all sites, with responsibility for ensuring that development sufficiently meets the requirements set out in development plans (including fire safety) and that works are undertaken properly (for instance, the installation of cladding systems).

Recommendation

7. Clerk of works to oversee all development/renovation works, and will be responsible for ensuring that all work has been undertaken properly.

Competencies of key players

Q4 What evidence is there that those with responsibility for:

- *Demonstrating compliance (with building regulations, housing & fire safety requirements) at various stages in the life cycle of a building;*
- *Assessing compliance with those requirements;*

Are appropriately trained and accredited and are adequately resourced to perform their role effectively (including whether there are enough qualified professionals in each key area)? If gaps exist how can they be addressed and what would be the benefits of doing so?

London Councils believes that the impenetrability of building regulations, matched with a known skills shortage in the UK's construction sector, means that compliance has probably not met the standard it should do.

We are also concerned that there is a mixed standard of Fire Risk Assessment (FRA) being undertaken on behalf of boroughs. Since the Lakanal House fire, the London boroughs have worked hard (with colleagues at the LFB) to develop a better framework for FRAs and to share best practice on this front. The LFB has also produced a list of tips for finding a suitable person to undertake the FRA. However, we are concerned that there simply are not the skills and personnel available to ensure that FRAs are constantly undertaken to the highest standard. To highlight this, the Institute of Fire

Engineers notes that there are currently only 54 qualified Fire Engineers based in London. We also have doubts that the training required to qualify as a professional FRA assessor is sufficient.

We would welcome a move to demand that all fire risk assessors, including self-employed providers, should be members of an accredited fire risk assessment scheme and that a register is kept of all companies/individuals providing FRAs. Clearly, this would push up time taken and inspection costs, issues that must be balanced and mitigated to ensure the additional costs are not passed on to tenants and leaseholders.

Recommendation

8. Mandatory membership for FRA assessors of an accredited fire risk assessment scheme.

Enforcement and sanctions

Q5 Is the current checking and inspection regime adequately backed up through enforcement and sanctions? In particular

- ***Where does the regime already adequately drive compliance or ensure remedial action is always taken in a timely manner where needed?***
- ***Where does the system fail to do so? Are changes required to address this and what would be the benefits of doing so?***

LFB can and do serve Enforcement Notices, which are usually effective. In many cases, local authority Environment Health teams also serve effective notices under the Housing Act 2004.

Where enforcement powers are particularly deficient are, in our view, around enforcement of the Buildings Act 1984. The Act only allows the local authority to bring a case against a defendant who has undertaken unauthorised works within two years of completion, and the case must be taken against the person who carried out the works. Alternatively, or in addition, within a year of works being completed, the local authority could serve an enforcement notice demanding that the building owner undertakes works to address the infringement; with the threat that the council could undertake the work itself and subsequently recover costs. In reality, it is difficult for local authorities to prove, particularly without the cooperation of building owners or the relevant AI (if applicable), exactly when the works were completed and who by. The local authority also needs to become aware of the infringement, which is not always likely.

Tenants' and residents' voices in the current system

Q6 Is there an effective means for tenants and other residents to raise concerns about the fire safety of their buildings and to receive feedback? Where might changes be required to ensure tenants'/residents' voices on fire safety can be heard in the future?

While more can always be done, local authorities across London generally have excellent channels of communication with residents in their own housing stock. These have been utilised to great effect to keep tenants and residents in hundreds of tower blocks across London informed about the testing and safety initiatives that followed the fire at Grenfell Tower, and to understand the concerns of residents.

An aspect of tenant communication that could be reviewed is around the Homes and Communities Agency's (HCA) Tenant Involvement and Empowerment Standard, which sets standards for the involvement of tenants of registered providers across a comprehensive range of issues which might include maintenance. It sets an expectation upon the registered provider to provide feedback. It does not specifically identify concerns about fire safety. Following the fire at Grenfell Tower, it would be advisable for the HCA to update the Standard to distinctively address fire safety, which is a more immediate and lethal risk than most of those specifically addressed at present. This will also act as a driver to ensure that

once the regulations are reviewed they are communicated more effectively, not just to those professionals responsible but also to tenants, so they are empowered to express their concerns effectively to their landlords.

Recommendation

9. HCA Tenant Involvement and Empowerment Standard to be updated to incorporate specific standards around fire safety.

Quality assurance and testing of materials

Q7 Does the way building components are safety checked, certified and marketed in relation to building regulations requirements need to change? In particular:

- ***Where is the system sufficiently robust and reliable in maximising fire safety and, if appropriate***
- ***Where specifically do you think there are weaknesses/gaps? What changes would be necessary to address these and what would be the benefits of doing so?***

There is obvious concern from local government as to how the verification process for construction products allowed many items to be certified as compliant with the building regulations, when the subsequent Building Research Establishment testing programme has now deemed they are non-compliant. Notably this includes ACM cladding, which has been used in cladding systems now for many years, often to provide increased energy efficiency to tenants and solve problems where some towers had particular temperature issues.

Of particular concern is the testing of materials. Under the current system a desktop report from an accredited testing body is sufficient where no fire test data is available for a particular system. These reports are a matter of opinion and cannot be verified by building control. This use of desktop studies as a substitute for a fire test should be stopped.

The Grenfell Tower Inquiry will establish the exact reasons for the fire at that site. For local authorities more broadly, replacing materials previously considered as compliant under the building regulations regime will be costly.

A London Councils survey found that, based on responses from 21 London local authorities, the total potential cost of remedial work being undertaken in those council areas is estimated at £402 million – including £53 million to replace cladding systems that are now considered as deficient. £262 million is expected to be spent installing sprinkler systems in high rise developments, a retrofit that is now considered essential by many residents. We believe that meeting the cost of remedial works needed to address the flaws in the current building regulations should be forthcoming from central government.

Of particular concern for local authorities – and landlords more generally – is what cladding systems will be acceptable following the conclusion of this independent review. With many local authorities having already removed their cladding systems, guidance in the interim report as to which materials will be compliant with building regulations in the future would help local authorities to make a decision on replacement materials with confidence. Currently, the absence of guidance is making such decisions problematic.

Recommendations

10. The interim report should outline which cladding systems will be acceptable following the conclusion of this review.

11. The review should recommend that remedial works needed to make tenants safe and feel safe should be funded by central government.

12. The substitution of desktop studies for fire tests should be stopped

Differentiation within the current regulatory system

Q8 What would be the advantages/disadvantages of creating a greater degree of differentiation in the regulatory system between high-rise multi occupancy residential buildings and other less complex types of residential/non-residential buildings? Where specifically do you think further differentiation might assist in ensuring adequate fire safety and what would be the benefits of such changes?

We would welcome a separate regulatory standard for tall buildings. The risks to life in tower blocks are different in two ways. On the one hand, the physical facts of a tower block mean that it is more difficult for residents to evacuate and fire fighters to extinguish when a fire takes place. On the other, the changes that will inevitably take place in the business model of a tower block over the life time of the building will also have a potentially detrimental impact on the safety of a very large group of people. Therefore, while it may be argued that the recommendations for change we have made above may be applicable across the board, we believe they must be introduced for tower blocks.

Recommendation

13. We would support the introduction of a separate standard for high-rise development.

Government Building Safety Programme – update and consolidated advice for building owners following large scale testing

Summary

- Following the Grenfell Tower tragedy, the government has established a Building Safety Programme with the aim of ensuring high rise residential buildings are safe, and residents feel safe in them.
- Screening tests at the Building Research Establishment (BRE) have been identifying whether Aluminium Composite Material (ACM) cladding samples from buildings meet the limited combustibility requirements of current Building Regulations guidance.
- Seven further large scale tests have been undertaken to understand whether and when it may be safe to use ACM as part of a wall system in high rise buildings, in line with current Building Regulations guidance.
- The Expert Panel's advice following these tests is that ACM with an unmodified polyethylene filler (category 3 in screening tests) with any type of insulation presents a significant hazard on buildings over 18m.
- It is possible ACM with a fire retardant filler (category 2 in screening tests) could be used safely with non-combustible insulation (e.g. stone wool), but this is highly dependent on the insulation used, and how it is fitted.
- ACM with a limited combustibility filler (category 1 in screening tests) can be used safely, although this is also dependent on how it is fitted.
- Building owners should take their own professional advice on any further action, with regard to their cladding system, reflecting their own particular circumstances.
- Building owners have been given advice on interim fire safety measures they should take pending remedial action being completed.
- The government plans to provide further advice on the issues building owners may need to consider as they undertake remedial work, and will work with building owners to ensure buildings are made safe.
- The government is working with the Expert Panel to consider whether there are any heightened risks linked to other cladding systems and broader fire and building safety issues in high rise buildings.
- Alongside this work, the government has established an Independent Review of building regulations and fire safety, led by Dame Judith Hackitt, which will aim to ensure that buildings are safe in future.

Introduction

1. Following the tragic fire at Grenfell Tower on 14 June 2017, the government established a Building Safety Programme, with the aim of ensuring high rise residential buildings¹ are safe, and residents feel safe in them. The main parts to this work are:
 - Finding other buildings that may be of concern
 - Making existing buildings safe
 - Identifying changes needed to make buildings safer in future
 - Making the changes needed to make buildings safer in future
2. The focus over the past three months has been on finding buildings that may be of concern, and identifying steps that need to be taken to make them safe. An Independent Expert Advisory Panel ([appointed 27 June](#)) has provided the government with advice on immediate steps that can be put in place to make buildings, and the people living in them, as safe as possible. The panel have a wealth of experience in fire and building safety, and have drawn on wider technical expertise to inform their advice to government, including from experts on building design and construction, building control, testing processes, fire safety and fire engineering.
3. This work has not attempted to establish the cause of the fire at Grenfell Tower or the circumstances around it, which are being investigated by the police and the Public Inquiry established by the Prime Minister and led by Sir Martin Moore-Bick. Terms of Reference for the Inquiry are available [here](#).

Screening tests

4. In light of early concerns about the role cladding played in the Grenfell Tower fire, building owners were asked to identify residential tower blocks over 18 metres in height with Aluminium Composite Material (ACM) cladding. On the advice of a panel of independent experts, initial screening tests were made available, at no cost to building owners, to identify whether cladding was of 'limited combustibility' as this is one way that buildings over 18m can meet current Building Regulations guidance (on external fire spread). The tests were made available to social and private sector landlords and to public sector building owners (for example for hospitals and schools).
5. By 31 August, 294 ACM samples have been sent for initial screening tests for buildings in the United Kingdom, 278 in England. Of the 278 in England, this includes 173 social housing, 16 public buildings, and 89 private buildings (including 27 private student residential). None of these samples were found to be of limited combustibility.
6. Alongside initial screening tests, DCLG issued advice on interim fire safety measures building owners should take to ensure the safety of their residents, in particular arranging a visit from the local fire and rescue services (FRS). In the period from 14 June to 31 August, the FRS have visited over 1,200 high rise buildings, including all those covered by the screening tests.

¹ Including hotels and public buildings (e.g. schools and hospitals)

Large-scale tests

7. On the basis of the screening test results, and on advice from the Expert Panel, the government commissioned a series of large scale system tests, testing how different types of ACM panels behave in a fire with different types of insulation. The British Standard test used for the large scale tests (BS8414) is a way of demonstrating that a wall system meets Building Regulations guidance for buildings over 18m. Seven tests were undertaken in priority order, taking into consideration which systems were likely to present most risk, so urgent advice could be provided to building owners.
8. A summary of the results and advice for building owners is set out in the consolidated advice from page 5. Of the 278 buildings in England which have been screened and have ACM which is not of limited combustibility, 266² buildings have cladding systems which the Expert Panel advise are unlikely to meet current Building Regulations guidance and therefore present fire hazards on buildings over 18m.
9. The government is engaging closely with the owners of these buildings to ensure they are following the necessary advice set out in this note. The advice summarised here includes:
 - Results and advice for building owners on the large scale wall system tests; and
 - Frequently Asked Questions.
10. Following the large scale testing, the National Fire Chiefs Council (NFCC) is, with other fire safety experts, reviewing the advice on the interim fire safety measures and developing guidance on waking watch and common fire alarms. This guidance is due to be published shortly, and we will reissue advice on the interim measures alongside this. In the meantime, existing advice from [22 June](#) on the recommended interim mitigation measures to ensure the safety of residents, pending any required remediation of cladding systems, still stands.

Next steps

11. The ACM screening and large-scale tests were the first phase of work to find other buildings of concern following the Grenfell Tower fire. Where buildings have been identified as having ACM, the government is working closely with building owners to ensure those buildings are made safe. The government is confident that all social housing blocks over 18m with ACM have been identified, and the government has been encouraging private sector landlords to urgently send their samples for testing so private sector ACM blocks can be identified. The government has asked local housing authorities to ensure that all (social and private sector) residential blocks over 18m in their local areas with ACM have been identified and that any necessary remedial action is being taken, and is working with those local authorities, FRS and others to support and monitor this.

² This figure includes 49 buildings inferred to have failed where their insulation is not yet known: 38 with category 3 ACM panels, and 11 buildings with category 2 ACM panels.

12. The government will be working to support building owners and gain assurance that remediation work is carried out appropriately. We will be asking building owners to provide regular returns confirming the scope and progress of remediation works.
13. With the Industry Response Group ([established 10 July](#)) and the Expert Panel we will also develop a series of briefing notes to inform key stages of remediation. We expect the first note to be issued in September and it will be published on the Building Safety Programme [webpage](#).
14. We propose to align the briefing notes with the Royal Institute of British Architects (RIBA) [Plan of Work](#) (a guide which sets out the different stages of a construction project). Examples of the briefing notes we expect to publish include: advice on feasibility issues and options appraisal, including a summary of cladding systems available and issues to be considered when replacing part or all of the cladding system; and information on procurement approaches and available frameworks.
15. Given the particular concerns around ACM cladding, the primary focus to date of the first phase of the Building Safety Programme – finding other buildings that may be of concern – has been testing ACM cladding systems. With the large scale tests now complete, the government, supported by the Expert Panel, is considering whether there may be heightened risks linked to other issues, such as other cladding systems and broader safety issues. The Expert Panel will consider whether there is any further advice that is needed for building owners in relation to any wider issues, and any updates will be posted over the coming months on the Building Safety Programme [webpage](#).
16. As a first step to understand what other cladding systems may be safe on high rise buildings, the BRE has sought permission from its clients and is publishing a list of historical data on cladding systems which have passed the BS8414 test set out in current Building Regulations guidance. The catalogue can be accessed [here](#).
17. Alongside this work to ensure that existing buildings are safe, the government is also taking forward work on the next phase, to “Identify changes needed to make buildings safe in future”. A key stage is an Independent Review of the Building Regulatory and Fire Safety System, led by Dame Judith Hackitt. The Terms of Reference for the review are [here](#). The review will publish an interim report at the end of November and a final report in the spring of 2018.

Consolidated advice for building owners

Summary of results

18. The government recently conducted seven large scale tests of wall systems to better understand how different types of ACM panels behave in a fire with different types of insulation. Based on these tests, this consolidated advice informs building owners of the steps they should take to ensure the safety of their residents.

Key findings

19. Based on the tests conducted and the Expert Panel's advice, the key points are:

- ACM cladding with unmodified polyethylene filler (category 3) presents a significant fire hazard on buildings over 18m with *any* form of insulation.
- ACM cladding with fire retardant polyethylene filler (category 2):
 - presents a notable fire hazard on buildings over 18m when used with *rigid polymeric foam* based on the evidence currently available.
 - can be safe on buildings over 18m if used with *non-combustible insulation* (e.g. *stone wool*), and where materials have been fitted and maintained appropriately, and the building's construction meets the other provisions of Building Regulations guidance, including provision for fire breaks and cavity barriers.
- ACM cladding with A2 filler (category 1) can be safe on buildings over 18m with foam insulation or stone wool insulation, if materials have been fitted and maintained appropriately, and the building's construction meets the other provisions of Building Regulations guidance, including provision for fire breaks and cavity barriers.

20. In all instances, building owners have been advised that they should seek professional advice on what further steps to take with respect to their cladding system based on the specific circumstances of their building, and to satisfy themselves that their building is safe.

21. All building owners have also been advised to ensure their local FRS has visited to complete a fire safety audit of their building, and that they have implemented the recommended interim measures.

22. Results of the seven tests are available on the Building Safety Programme [webpage](#).

23. The results for England are summarised in the table overleaf, and in more detail in the advice that follows.

Test results for buildings in England

Aluminium Composite Material (ACM) with...	Insulation		
	PIR Foam	Phenolic Foam	Stone Wool
Unmodified polyethylene filler (Cat. 3 in screening tests)	Test 1 failed 81 Buildings Report and Advice	N/A	Test 2 failed 107 Buildings Report and Advice
Fire retardant polyethylene filler (Cat. 2 in screening tests)	Test 3 failed 8 Buildings Report and Advice	Test 7 failed 21 Buildings Report and Advice	Test 4 passed 12 Buildings Report and Advice
Limited combustibility filler (Cat. 1 in screening tests)	Test 5 passed 0 Buildings Report and Advice	N/A	Test 6 passed 0 Buildings Report and Advice

Advice for building owners on the large scale wall system tests

24. The government initially commissioned six tests on the advice of the Expert Panel, testing three types of ACM cladding with two commonly used types of insulation; and published the accompanying [explanatory note](#) on 20 July 2017. A seventh test was subsequently commissioned, to test one of the types of cladding with a third kind of insulation.

25. The seven tests undertaken were:

- **Test 1** (23 July 2017): ACM cladding with unmodified polyethylene filler (category 3 in screening tests) with polyisocyanurate (PIR) foam insulation
- **Test 2** (30 July 2017): ACM cladding with unmodified polyethylene filler (category 3 in screening tests) with stone wool insulation
- **Test 3** (30 July 2017): ACM cladding with fire retardant polyethylene filler (category 2 in screening tests) with PIR foam insulation
- **Test 4** (6 August 2017): ACM cladding with fire retardant polyethylene filler (category 2 in screening tests) with stone wool insulation
- **Test 5** (6 August 2017): ACM cladding with A2 filler (category 1 in screening tests) with PIR foam insulation
- **Test 6** (16 August 2017³): ACM cladding with A2 filler (category 1 in screening tests) with stone wool insulation
- **Test 7** (13 August 2017): ACM cladding with fire retardant polyethylene filler (category 2) with phenolic foam insulation

³ Test 6 was delayed due to a technical issue, so took place after Test 7

26. In all other respects, all tests were specified and constructed according to the Building Regulations guidance – including fire stopping between floors and the required cavity barriers in place. The detailed technical specification for each of the tests is available on the Building Safety Programme [webpage](#).

Results

27. Results of the seven tests, and accompanying advice for building owners, are available on the Building Safety Programme [webpage](#), and are summarised in this note.
28. The number of buildings screened and covered by large scale tests is 294 for the United Kingdom. Numbers for England alone (278 buildings) are shown in the table below.

	Number screened ⁴			Large Scale Tests		
	Cat. 2 ACM	Cat. 3 ACM	Total	Tests 1, 2, 3, 7 (Fail) ⁵	Tests 4, 5, 6 (Pass)	Total
Social housing	29	144	173	165	8	173
Public buildings	4	12	16	16	0	16
Private: residential	12	50	62	59	3	62
Private: student residential	7	20	27	26	1	27
Total	52	226	278	266	12	278

ACM cladding with unmodified polyethylene filler (category 3 in the screening tests)

Test 1: ACM cladding with unmodified polyethylene filler (category 3) with PIR foam insulation

Test 2: ACM cladding with unmodified polyethylene filler (category 3) with stone wool⁶ insulation

29. These wall systems both **failed** the test, which means they did not adequately resist the spread of fire over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135. Based on these test results, the Expert Panel's advice is that, **they do not believe that any wall system containing an ACM category 3 cladding panel, even when combined with limited combustibility insulation material, would meet current Building Regulations guidance**, and are not aware of any tests of such combinations meeting the standard set by BR135. **Wall systems with these materials therefore present a significant fire hazard on buildings over 18m.**

⁴ Screened at BRE or by Proxy (not directly tested, but where the category of ACM can be deduced from other sources, such as testing of identical cladding from a different building)

⁵ This includes 49 buildings inferred to have failed, where their insulation is not yet known: 38 with category 3 ACM (15 social housing, 4 public buildings, 6 private student residential, and 13 private residential), and 11 buildings with category 2 ACM (2 social housing, 3 public buildings, 1 private student residential and 5 private residential).

⁶ A form of non-combustible mineral wool.

ACM cladding with fire retardant polyethylene filler (category 2 in the screening tests)

Test 3: ACM cladding with fire retardant polyethylene filler (category 2) with PIR foam insulation

Test 7: ACM cladding with fire retardant polyethylene filler (category 2) with phenolic foam insulation⁷

30. Tests 3 and 7 both **failed** the test, which means they did not adequately resist the spread of fire over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135. The Expert Panel's advice is that, based on these test results, and in the absence of any other large scale test evidence, **it is unlikely that any combination of ACM cladding with fire retardant polyethylene filler (category 2 in screening tests) and rigid polymeric foam insulation⁸ would pass the BS8414-1 test**, and therefore fail to meet current Building Regulations guidance. **This combination of materials therefore presents a notable fire hazard on buildings over 18m.**

Test 4: ACM cladding with fire retardant polyethylene filler (category 2) with stone wool insulation

31. Test 4 **passed** the test, which means the wall system **adequately resisted the spread of fire** over the wall to the standard required by the current Building Regulations guidance and which is set out in BR135. The Expert Advisory Panel's advice is that **this result shows one way in which compliance can be achieved and offers an indication of how remedial works could be specified for those buildings that have been found to have problems.**

32. However, it is important to note that there are many different variants of this cladding and insulation and it is possible that products from different manufacturers may behave differently in a fire. The composition of ACM panels with fire retardant polyethylene filler can vary between manufacturers. The average of the calorific values of the fire retardant panels used in the test were 13.6 MJ/kg. Building owners with this combination of materials should consult their screening tests to check how their category 2 values compare. A higher value will indicate greater combustibility than the panel used, and vice versa.

33. Equally, it is important to note that materials may have been fitted or maintained differently, to how the tests were specified and constructed, which can affect the safety of the cladding system. Fixing details and the provision of cavity barriers are also important. Building owners should seek professional advice that looks at the specific circumstances of their building.

ACM cladding with A2 filler (category 1 in the screening tests)

Test 5: ACM cladding with A2 filler (category 1) with PIR foam insulation

Test 6: ACM cladding with A2 filler (category 1) with stone wool insulation

34. These wall systems both **passed** the test, which means they **adequately resisted the spread of fire** over the wall to the standard required by the current

⁷ This test was commissioned following the completion of the third test to further build the evidence base on the behaviour of foam insulation with these panels.

⁸ PIR foam and phenolic foam are both commonly used forms of rigid polymeric foam insulation.

Building Regulations guidance and which is set out in BR135. The Expert Panel's advice is that **these results shows two ways in which compliance can be achieved and offer an indication of how remedial works could be specified for those buildings that have been found to have problems**. In particular, Test 6 reaffirms that one way to ensure that a cladding system adequately resists external fire spread is for all of the relevant elements⁹ of the wall to be of limited combustibility¹⁰.

35. However, the composition of different products from different manufacturers will vary and it is possible that products from different manufacturers may behave differently in a fire. Equally, it is important to note that the materials used may have been fitted or maintained differently, to how the tests were specified and constructed, which can affect the safety of the cladding system.

What should building owners do?

Where building owners have wall systems which failed the test

36. Firstly, and while building owners are considering further actions they should take, based on the advice from the Expert Panel it is recommended that they ensure they implement, if they have not done so already, the recommended [22 June interim mitigation measures](#), for ensuring the safety of residents. Local fire and rescue services will continue to work with building owners to ensure any necessary mitigation measures are in place.
37. Secondly, building owners should take professional advice on what further steps to take with respect to their cladding system. This professional advice may be obtained from a qualified chartered professional with relevant experience in fire safety, including fire testing of building products and systems, such as a chartered engineer or surveyor registered with the Engineering Council by the Institution of Fire Engineers or a chartered professional from another built environment profession¹¹ specialising in fire safety consultancy. Professional assessment of system performance may be obtained from a test laboratory accredited by the United Kingdom Accreditation Service to carry out BS8414 full scale tests and classify results to BR135.
38. Based on advice from the Expert Panel, where building owners have wall systems that failed the tests, it is recommended that in conjunction with their own professional advice they should follow the steps set out below:
- Take full professional advice on what remedial work is necessary to ensure the safety of their building. This may need to consider the combination of materials used in the cladding system, as well as whether the construction of

⁹ Gaskets, sealants and similar are not included in the guidance in 12.7 of Approved Document B.

¹⁰ Limited combustibility is defined in table A7 of Approved Document B (ADB) against both national and European standards. ADB notes that, for the purpose of ADB, a material that is classified as A2 in the relevant European test standard, EN 13501-1 (or the national standards also set out in table A7), would also be acceptable as a material of limited combustibility. While the surface of a panel may be classified as Class 0, this does not address whether the filler material in the core of the panel meets the definition of limited combustibility.

¹¹ such as the Chartered Institute of Architectural Technologists (CIAT), Chartered Institution of Building Services Engineers (CIBSE), Fellows of the Institution of Structural Engineers (IStructE), Royal Institution of Chartered Surveyors (RICS), the Chartered Institute of Building (CIOB), and the Society of Façade Engineers.

their building meets the other provisions of Building Regulations guidance including fire stopping between floors and the required cavity barriers in place.

- Building owners will need to take professional advice to ensure that any remedial work is undertaken safely (for example from an expert in cladding systems with relevant experience), and to ensure any replacement materials are safe.
- Assure themselves that remedial work also complies with Building Regulations guidance on how the system is designed and fitted – including provisions for fire breaks and cavity barriers.
- Ensure that when any work is carried out, including removing cladding, care is taken to consider the impact that removal may have on the other wall elements, and therefore on the overall structural and fire integrity of the building as well as other Building Regulation requirements. In particular care should be taken to ensure that insulation material is not exposed to the elements unnecessarily. (DCLG has published a [circular letter to building control bodies](#) which sets out the planning and building control requirements that will need to be considered).
- The fire safety of buildings must be maintained by the responsible persons at all times under the provisions of the Regulatory Reform (Fire Safety) Order 2005, for which advice is available [here](#).

Where building owners have wall systems which passed the test

39. Based on advice from the Expert Panel, where building owners have wall systems which passed the tests, it is recommended that they should follow the steps set out below:

- Take professional advice on whether any remedial work is necessary to ensure the safety of their building. This may need to consider whether the construction of their building meets the other provisions of Building Regulations guidance including fire stopping between floors and the required cavity barriers in place.
- If any remedial work is undertaken building owners will need to take professional advice to ensure that work is undertaken safely.
- Assure themselves that remedial work also complies with Building Regulations guidance on how the system is designed and fitted – including provisions for fire breaks and cavity barriers.
- The fire safety of buildings must be maintained by the responsible persons at all times under the provisions of the Regulatory Reform (Fire Safety) Order 2005, for which advice is available [here](#).

Where building owners have wall systems which do not clearly fall into scope of one of the large scale tests

40. Based on the advice from the Expert Panel, where building owners have ACM panels but are unsure of the type of insulation being used as part of the wall cladding system, they should in the case of:

- Category 3 ACM panels follow the advice for building owners with wall systems failing the test.
- Category 2 ACM panels, take professional advice based on the specific circumstances of their building.



41. Any building owners with category 1 ACM panels should similarly obtain professional advice to assure themselves that their building is safe.

Further advice and support

42. DCLG has published a [circular letter to building control bodies](#) which sets out the planning and building control requirements that will need to be considered.
43. In addition to resolving any concerns about the nature of cladding materials on a block of flats, building owners should also consider the other fire safety measures in their buildings.
44. The detailed design of the tested cladding systems have been reviewed by the Expert Panel to ensure that it is representative of the systems in common use. Three common insulation types have been tested in combination with three types of ACM panel products. Design information is provided in the individual test reports which include details on fixings, insulation thickness, cavity barrier types, and ACM filler calorific value. Where there are variations between a building's cladding system and the tested cladding systems, buildings owners are advised to seek professional advice.

Frequently Asked Questions

Building owners

Does it matter if I've got different cavity barriers?

Cavity barriers are relied upon to inhibit fire spread within the cladding system. For cavity barriers to perform effectively the barrier type must be suitable for the cladding system and they must be fixed appropriately. It is recommended that building owners confirm the presence of cavity barriers, the suitability of the type, and the quality of workmanship. The manufacturer's product information will provide details on the design, application, and fixing requirements.

What if I've got a different kind of foam, such as glass foam?

The Building Safety Programme has focused on the most common insulation types present in buildings. Other insulation products may have different fire performance characteristics, therefore building owners should take professional advice on whether any remedial work is necessary to ensure the safety of their building.

My foam is thicker/thinner than the foam you used; what does that mean for my building?

The detailed design of the tested cladding systems have been reviewed by the Expert Panel to ensure that it is representative of the systems in common use, including the insulation thickness. Building owners should take professional advice on differences between their building's cladding system and the tested systems.

My building's cladding isn't made of ACM. Does that mean it's safe?

Given the particular concerns around ACM cladding, the primary focus of the Building Safety Programme to date has been testing such cladding systems. With the large scale tests now complete, the government, supported by the Expert Panel, is considering other issues, such as other cladding systems. Further information will be set out in due course.

We have cassettes, not flat panels; does that matter?

The fixing details and panel shape are factors which could affect the fire performance of the cladding system. Therefore building owners should take professional advice on differences between their building's cladding system and the tested systems.

My building is over 18m if the basement is included. Is it in scope?

Building regulation guidance (AD B) measures the building height from the ground level to the upper floor surface of the top storey. This excludes basement stories. Whilst low-rise buildings (less than 18m), are not subject to the same recommendations for limited combustibility materials (or BR 135 classification), the cladding may still be subject to other surface spread of flame fire performance recommendations, for example in relation to separation distances. Building owners should seek professional advice where there is doubt over the fire performance of the cladding system.

I only have ACM cladding on part of my building. Do I need to take it off?

Small panels of ACM with a PE filler, such as where it has been used as a trim for window reveals or balcony edges may present a lower fire risk where it is isolated from other combustible cladding materials but this would require careful consideration. Building owners should seek professional advice to ensure their building is safe and

that it adequately resists the spread of fire over the wall to the standard required by the current Building Regulations guidance.

I have rigid foam insulation, will it be OK to replace the ACM with any material of limited combustibility (A2)?

Test 5 has shown that A2 ACM (limited combustibility) with rigid foam insulation passed the large scale fire test. Whilst the ACM with mineral filler was classified as an A2 material, it cannot be assumed that other materials of limited combustibility would have the same resilience and integrity in a fire. Therefore where other parts of the cladding system (such as the insulation) are not of limited combustibility, buildings owners should not assume that replacing only the outer ACM panels with any limited combustibility material will be sufficient. Professional advice should be sought.

I have stone wool insulation, will it be possible to replace the ACM with any material of limited combustibility (A2)?

Yes, but you should still ensure that the finished work meets all other provisions of building regulations. We recommend that you check with the manufacturer to ensure it is suitable for the proposed use and take appropriate professional advice.

Where can I get professional advice?

Professional advice may be obtained from a qualified chartered professional with relevant experience in fire safety, including fire testing of building products and systems, such as a chartered engineer registered with the Engineering Council by the Institution of Fire Engineers, or a chartered professional from another built environment profession specialising in fire safety consultancy, such as the Chartered Institute of Architectural Technologists (CIAT), Chartered Institution of Building Services Engineers (CIBSE), Fellows of the Institution of Structural Engineers (IStructE), Royal Institution of Chartered Surveyors (RICS), the Chartered Institute of Building (CIOB), and the Society of Façade Engineers.

Professional assessment of system performance may be obtained from a test laboratory accredited by the United Kingdom Accreditation Service to carry out BS8414 and classify results to BR135.

What about funding this work?

Our expectation is that building owners will fund measures designed to make their buildings fire safe, and draw on their existing resources to do so.

Housing Associations should contact the Social Housing Regulator (at mail@homesandcommunities.co.uk) if they have concerns about their ability to meet the cost of essential works. Where a Local Authority has concerns about funding essential fire safety measures, they should approach DCLG as soon as possible to discuss the position at LocalAuthorityHousing@communities.gsi.gov.uk. In these cases, the Government will consider removing financial restrictions, where financial barriers stand in the way of essential works being done. Where public sector building owners have concerns, they should contact their home department.

Essential works would include those advised by local fire services to be essential to ensure the fire safety of a building. It would also cover cases where building owners have received professional advice on any essential work to make cladding systems safe.

Should I install fire suppression systems as part of my building's fire safety strategy?

A building's fire strategy applies a number of fire protection measures to provide a suitable standard of safety. This can include smoke alarms, fire compartmentation and smoke control. Fire suppression systems such as sprinkler and water mist systems can form an effective part of an overall fire strategy, particularly in tall buildings, where they are provided in accordance with the relevant British Standard. Where there is a risk of external fire spread via the external walls of a building then a sprinkler system or water mist system should not be assumed to be an alternative to remedial work to the cladding system.

Residents/ tenants

I'm a resident. What should I do?

Residents should speak to their building owner/landlord about the steps they are taking, both in light of advice from the fire and rescue services on interim measures that should be put in place to help ensure residents safety while any remediation work is planned and undertaken, and on any further steps building owners are taking to ensure their cladding system is safe. The government is in contact with all building owners who have had cladding tested and which have been found not to be of limited combustibility.

My building owner/ Landlord is refusing to cooperate. What should I do?

Building owners are responsible for ensuring that any necessary repairs or improvements are carried out.

If the building owner, landlord or letting agent refuses to deal with the issue or is taking an unreasonably long time to do so, residents should contact the environmental health department at your local authority. They have the power to inspect the property and, if they discover any hazards, they can ensure the landlord or agent makes any necessary repairs or improvements.

The government has published two guides providing further information:

- [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/496709/How to Rent Jan 16.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/496709/How_to_Rent_Jan_16.pdf)
- [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412913/150309 How to rent a safe home final .pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412913/150309_How_to_rent_a_safe_home_final_.pdf)

Advice for building owners on external wall systems that do not incorporate Aluminium Composite Material

This Advice Note is for the attention of anyone responsible for residential buildings over 18m in height who are concerned about the fire safety implications of external wall systems that do not incorporate Aluminium Composite Material. It has been developed in consultation with DCLG's Independent Expert Advisory Panel.

1. The Grenfell Tower tragedy has raised concerns amongst building owners and residents about the fire safety of external wall systems on high-rise residential buildings. The Government's Building Safety Programme has to date focussed on identifying and advising on interim and remedial measures for high-rise building with Aluminium Composite Material (ACM) cladding systems, where such systems do not meet current Building Regulations guidance for resisting fire spread across external wall surfaces.
2. This advice is for owners of high-rise residential buildings where the external wall system of their building does not incorporate ACM. Building owners will want to satisfy themselves and their residents that buildings are safe.
3. Building owners should take their own professional advice on any further action, reflecting their building's particular circumstances.

Summary

4. With a series of large scale fire system tests for ACM cladding systems now complete and advice issued to building owners [<https://www.gov.uk/government/publications/building-safety-programme-update-and-consolidated-advice-for-building-owners-following-large-scale-testing>], the Government, supported by the Independent Expert Advisory Panel, has been considering whether there may be heightened risks linked to other external wall systems.
5. The potential that there may be incorrectly specified or substituted products installed on tall buildings should not be ignored. Building owners will want to satisfy themselves and their residents that buildings are safe, and may therefore wish to carry out the checks set out below.

Advice

6. As with ACM cladding systems, the Independent Expert Advisory Panel recommends that building owners seek professional advice where there is any uncertainty about the fire safety of their external wall systems. The expert panel maintains the view that the clearest ways of ensuring an external wall system adequately resists external fire spread are to use materials either of limited combustibility¹, or an external wall system which can be shown to have passed a large scale test conducted to the BS 8414 standard; and where the construction of the building also meets the other provisions of Building Regulations guidance, including fire stopping between floors and the required cavity barriers being in place (see Section 9 of Approved Document B volume 2).
7. Where only a technical assessment (sometimes referred to as a desktop study) of the likely performance of particular external wall systems has been undertaken and where directly applicable BS 8414 test data is not available, the technical basis of such assessments should be checked.
8. Building owners should understand the construction of their buildings and how best to maintain their safety in use. To do so, building owners should check their records for information about the external wall systems used on their buildings. It should also be possible to obtain advice and information from the product manufacturers and/or contractors about the fire performance, correct installation and maintenance of materials used.

Common external wall systems

9. ACM is part of a wider range of Metal Composite Materials (MCM) faced with other metals such as zinc, copper, and stainless steel. Like ACM, the filler or core material of MCM panels varies between products and can include combustible materials. In addition, the facing materials of MCM have different melting points, therefore the fire performance may differ depending on the type of metal facing. Building owners should seek professional advice over the suitability of MCM cladding.
10. There are many different types of components used in the construction of external wall systems, for example, High Pressure Laminates (HPL) and

¹ Materials of limited combustibility would either include a material or product which is at least Class A2-s3, d2 in accordance with BS EN 13501-1:2007; or has achieved a national equivalent classification in accordance with Table A7 of Approved Document B volume 2.

Rendered Insulation systems and all perform differently when exposed to a fire. It is, therefore, important that the right combination of products has been installed and maintained correctly, to ensure they adequately resist the spread of fire over the wall to the standard required by current Building Regulations guidance. Building owners should seek to confirm the combination of products within the external wall system and the type of cladding (rainscreen or render) system on the building. Where there is potential for a product to have been substituted from what was originally specified at the design stage, onsite checks can help provide confirmation of product type. Where the product type (and associated fire classification) cannot be confirmed or there is doubt, then manufacturers' advice on the identification of their different products, systems and their fire performance details may be needed.

BS8414 tests

11. Some external wall systems incorporate insulation and other components, which do not meet the limited combustibility requirements of current Building Regulations guidance (on external fire spread). This may include rigid foam insulation or other components such as rainscreen panels. To determine whether the standards for external wall systems set out in current Building Regulations guidance would be met in cases where combustible components are included as part of an external wall system, building owners should determine if the external wall system has completed a BS 8414 test and successfully attained BR 135 classification. In support of this we have asked the laboratories that offer BS 8414 testing to list those systems they have tested and classified. This should help professionals in identifying whether a system on a building has or has not been tested and to identify product manufacturers and/or external wall system suppliers.
12. The Building Research Establishment's catalogue of historical data of external wall systems, which have completed a BS 8414 test and successfully attained BR 135 classification can be accessed on their website [<https://www.bre.co.uk/regulatory-testing>].

External wall systems which have been tested to BS 8414, and shown to adequately resist fire spread, rely upon design detailing such as cavity barriers and in some cases external renders to inhibit fire spread. Building owners with BS 8414 tested external wall systems should seek professional advice on whether the external wall system has been installed and maintained as recommended by the manufacturer/supplier. For example, missing or

incorrectly fitted cavity barriers, or damaged render can compromise the fire performance of an external wall system.

Further advice on fire safety

13. Helpful advice on how to manage fire safety in blocks of flats is set out in *fire safety in purpose built blocks of flats* published by the Local Government Association. This advice can be accessed on their website [<https://www.local.gov.uk/fire-safety-purpose-built-flats>].
14. This Advice Note is for building owners to act on now. However, the Government is commissioning further research to support further understanding in the industry of the fire performance of external wall systems. This will be developed with a view to publication in summer 2018.