

Building regulations review and fire safety in high rise buildings

Purpose of report

For direction.

Summary

The interim report from the Building regulations and fire safety review led by Dame Judith Hackitt was published on 18 December 2017. This report outlines the key findings set out in the report and its direction of travel, and also provides an update on the LGA's building safety programme related work.

Recommendations

That the Safer and Stronger Communities Board:

1. Note and comment on the findings and direction of travel outlined in the interim report of the Building regulations and fire safety review.
2. Consider the suggested areas of LGA focus for the second phase of the review's work set out in paragraph 10 and make recommendations to the LGA's Grenfell Task and Finish Group.
3. Note and comment on the LGA's building safety programme work.

Actions

Officers to proceed as directed.

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Building regulations review and fire safety in high rise buildings

Background

1. In July 2017 following the fire at Grenfell Tower, the LGA called for an urgent and immediate review of the building regulations to look at how easy they are to use, understand and comply with. The government responded by establishing an independent review led by Dame Judith Hackitt at the end of July 2017. The review was tasked with submitting an interim report in autumn 2017 and a final report in spring 2018.
2. The terms of reference for the review identified two purposes: to make recommendations to ensure there is a sufficiently robust regulatory system in the future; and to provide further assurance to residents that the regulatory system is working to ensure the buildings they live in are safe and remain so. In reaching its conclusions the review was also asked to:
 - 2.1 Map the current regulatory system as it applies to new and existing buildings;
 - 2.2 Consider the competencies, duties and balance of responsibilities of key individuals in ensuring that fire safety standards are adhered to;
 - 2.3 Assess the theoretical coherence of the current regulatory system and how it operates in practice;
 - 2.4 Compare this with other international regulatory systems and regulatory systems in other sectors with similar safety risks; and;
 - 2.5 Make recommendations that ensure the regulatory system is fit for purpose with a particular focus on multi-occupancy high rise residential buildings.
3. The review issued a call for evidence in September 2017, and the LGA drafted a submission, which was sent in on 13 October. A copy of the LGA's evidence was included in the papers for the Board's last meeting.

Interim Report

4. The interim [report](#) from Dame Judith Hackitt's review was published on 18 December 2017. In it Dame Judith Hackitt sets out the review's key findings so far, the direction of travel as it prepares the final report and the rationale for the proposed next steps, as well as the mapping it has done of the current regulatory system. The review's overall conclusion is that "the current regulatory system is not fit for purpose in relation to high-rise and complex buildings". It also identifies some early actions to support the review's direction of travel. The most relevant findings and recommendations from a local government and LGA perspective are set out below.

Regulation and guidance

- 4.1 The Building Regulations 2010 are clear, but not about where responsibilities lie or on the definitions of important terms, and there is widespread confusion about what are regulations and what is guidance.
- 4.2 The Approved Documents are not produced in a user-friendly format, and should be revised to provide a more streamlined, holistic view which is accessible and user friendly, while retaining the right level of relevant technical detail.
- 4.3 Given that revising the Approved Documents may take some time, the government should consider improving the clarity of Approved Document B (on fire safety) as an interim measure.
- 4.4 The regulatory system needs to become more risk-based, with a more rigorous process for complex and high-risk buildings (along with a definition of what these are) to ensure that building integrity is maintained throughout the life cycle.
- 4.5 It is inappropriate for the current system of building regulation to rely so heavily on central government to keep all regulations and supporting documents up to date. While government should set the basic framework of standards, it should not lead on the specification of the detailed solutions as to how those standards will be met.

Roles and responsibilities

- 4.6 There is a general lack of clarity around roles and responsibilities throughout the system, including under the Regulatory Reform (Fire Safety) Order 2005. It should be the primary responsibility of those who commission work and those who design and build projects to ensure buildings are built to the correct standard.
- 4.7 There should be identifiable, named dutyholders responsible for ensuring and proving compliance with the Building Regulations across the life cycle of a building, with the industry taking responsibility for demonstrating that all buildings are designed and built to be fit for purpose, including the introduction of new techniques and materials into construction.
- 4.8 The role of regulators should be to seek assurance that standards are being adhered to throughout all stages of construction and use, while industry demonstrates it has complied with those standards.
- 4.9 Responsibilities between landlords and residents in blocks of flats must be clarified under the Housing Health and Safety Rating System Regulations and the Fire Safety Order, so for example there is a clear definition of the 'common parts' of such buildings.

Competence

- 4.10 The competence of those involved in the design, construction, inspection, ongoing operational management and maintenance of complex and high-risk buildings has to be raised, as there are numerous examples demonstrating lack of competence among designers, builders, fire engineers, fire consultants, fire risk assessors, building control inspectors and others.
- 4.11 Those working on the design, construction, inspection and maintenance of complex and high-risk buildings therefore need to show they are suitably qualified. The professional and accreditation bodies have an opportunity to demonstrate that they are capable of establishing a robust, comprehensive and coherent system covering all disciplines for work on such buildings.
- 4.12 Local authority building control staff should be subject to audit by an independent body so they have to demonstrate they have maintained their relevant qualifications and experience in the same way Approved Inspectors have to.

Process, compliance and enforcement

- 4.13 There is widespread deviation from what is originally designed to what is actually built, so projects need to be properly documented and a thorough independent review and handover process needs to take place before a building can be occupied.
- 4.14 Checking for non-compliance can be hindered because the work has already been completed before it can be inspected or because work has started before full plans have been approved. Similar issues occur in relation to the Fire Safety Order where advice may be ignored or not acted upon because work is too far advanced.
- 4.15 Modifications and upgrades to complex and high-rise buildings must be subject to the same rigorous processes as during construction, with changes due to refurbishment properly reviewed and recorded, and the possibility that buildings have to be brought up to the latest fire safety standards.
- 4.16 There are differences of view about the impact of the partial privatisation of building control, and the ability to choose between local authority building control and approved inspectors. Issues highlighted include the effect on enforcement, the independence of building control and the pressures placed on local authority resources. Any further privatisation of the market must ensure effective enforcement and that approved inspectors are demonstrably independent.
- 4.17 Local authority building control teams are deterred from pursuing instances of non-compliance with the building regulations, and taking formal enforcement action by the cost of pursuing cases through the courts, and the historical failure of the courts to impose robust sanctions. Those responsible for enforcing the regulations should

have the resources to do so, be provided with appropriate powers, and any penalties should be suitably severe.

- 4.18 Fire and rescue services should be consulted by building control bodies or those commissioning or designing buildings at the earliest possible stage in the process and fire and rescue service advice should be fully taken into account.
- 4.19 There is a need for building control bodies to do more to assure that fire safety information for a building is provided by the person completing the building work to the responsible person for the building once it has been occupied. Given the importance of such information for ongoing maintenance and fire risk assessment, proof should be sought that it has been transferred.
- 4.20 The regular risk assessments of high-rise residential buildings required by the Fire Safety Order should be undertaken at least annually and when any significant alterations are made to the building. These risk assessments should be shared in an accessible way with the residents who live within that building and notified to the fire and rescue service.

Residents' voice and raising concerns

- 4.21 Residents need to be reassured that an effective system is in place to maintain safety in their homes, though the often complex ownership and management models in multiple occupancy residential buildings involving managing agents, varying leasehold contracts, residents' associations and so on, can make it difficult for residents to identify who to contact to raise concerns or to get responses to concerns when raised.

Quality assurance and products

- 4.22 As products are marketed in ways in which means their performance can easily be misinterpreted, and individual elements are being used in systems without the systems being fully tested, it is important that products are properly tested, certified and marketed clearly. One of the review's strands of work in the next phase will be to examine whether product testing data should be made publicly available, and how the system product classification and labelling can be made clearer.
- 4.23 The widespread use of desktop studies is not being properly managed so government should significantly restrict their use to where it is appropriate and there is sufficient, relevant test evidence. Those undertaking desktop studies must be able to demonstrate suitable competence.
- 4.24 As the integrity and efficacy of product and system classifications are highly dependent on correct installation by competent and knowledgeable persons a number of respondents have called for a reinstatement of the former role of Clerk of Works or similar to act as the primary gatekeeper of quality assurance on significant projects. There is a need to ensure oversight of the quality of installation work carried out as well as of the materials delivered to site and used.

International examples

- 4.25 Fires in high-rise buildings have occurred elsewhere in the world and a number of corrective measures have been put in place or are under consideration. The review will use examples of what has worked well in other countries to support the work during phase two.
5. Having concluded that the current regulatory system is not fit for purpose, in its next stage the review will consider how it can be fully overhauled, so that it is simpler, clearer to all and delivers better outcomes. The ideas for improving the regulatory system set out in the interim report will be developed and turned into final recommendations to deliver the direction of travel set out in the report. A key message from the interim report is the need on the part of construction industry to recognise there has to be significant cultural and behavioural change. The review challenges the industry to take responsibility for buildings in the same way they have taken responsibility over the last few years for the safety of people working on construction projects, and which has delivered considerable changes in practice.
 6. Dame Judith Hackitt is looking to work in partnership with industry leaders to help take forward the areas of work identified in the interim report. The first stage in this process will be a summit a summit with key stakeholders, including the LGA, taking place on Monday 22 January 2018. This is partly designed as a call to action to the entire industry to ensure there is real change that improves the effectiveness and efficiency of building regulations and the fire safety system.
 7. In his response to the interim report on 18 December 2017 the Secretary of State for Housing, Communities and Local Government confirmed that the government accepted all of the interim report's recommendations. He added that the Ministry of Housing, Communities and Local Government (MHCLG) will revise the Approved Documents on Fire Safety to clarify them and restrict the use of desktop studies, with a new British Standard being commissioned on when and how they can be used. MHCLG will also consider how the entire suite of Approved Documents can be restructured and reordered to make it more user-friendly. In addition the Ministry will be writing to building control bodies to highlight the recommendations in the interim report about the need to consult fire and rescue services as early in the design process as possible, and to ensure that fire safety information on a building is handed over by the person completing the building work to the person responsible for the building once it is occupied.

LGA response to the interim report

8. The interim report reflects many of the points made in the LGA's submission to the review's call for evidence in September. The overarching conclusion that the current regulatory system is not fit for purpose echoes the LGA's view that the fire at Grenfell Tower has exposed a systemic failure. Nearly all the substantive points made in our submission were picked up in the interim report including:

- 8.1 the lack of clarity in the Approved Document on Fire Safety;
 - 8.2 the problematic interaction between individual parts of the wider suite of Approved Documents;
 - 8.3 the problems with product labelling, product certification and the fire safety testing of cladding systems;
 - 8.4 the need for specific individuals to have responsibility for ensuring a building is constructed to the building regulations;
 - 8.5 the impact of the competitive market in building control on standards and inspections;
 - 8.6 the competencies of those involved in carrying out fire risk assessments; and
 - 8.7 the way that the Housing Act 2004 and the Fire Safety Order work.
9. This represents a considerable lobbying success on the part of the LGA. In our initial media response to the report's publication we therefore welcomed it. The LGA's Grenfell Task and Finish Group will be considering the interim report in detail at its next meeting on 17 January. Ahead of that it would be helpful to have the Board's views on the interim report, and particular areas of the review's work the LGA should seek to shape going forward.
10. As the report incorporates nearly all the substantive points we thought should be addressed by the review, it is suggested that the LGA supports the review's overall findings and direction of travel, and in particular the recommendations to restructure the suite of Approved Documents and make the Approved Document on Fire Safety clearer. In terms of areas where the LGA should seek to further shape the review's findings, the Board may wish to suggest the following areas for consideration to the Task and Finish Group:
- 10.1 The review argues that the current building regulation system relies too heavily on central government keeping the relevant documentation up to date, and that while government should set the overall framework of standards, government should not lead on the specification of detailed solutions. The review suggests that the construction industry should have a greater role in this process. This would provide the ability to respond flexibly to changes in technology, design and construction methods. However allowing industry to specific solution is arguably part of the reason that we have high-rise residential blocks with combinations of aluminium composite cladding and insulation that has now been deemed to not meet building regulation standards.
 - 10.2 The review points out that the lifetime of the building is considerably longer than the time spent on its construction. During that period new methods of improving the safety of a building will become available. The review argues that it is not sufficient for regulations to make these new methods a requirement for new buildings, and that consideration has to be given to what it is reasonable and

practical to do upgrade and improve the fire safety of existing buildings during their lifespan. This would potentially have a significant impact on local authorities. Currently the building regulations require the installation of sprinkler systems in high-rise residential blocks over 30 metres in height. Although councils are already looking to retrofit sprinklers in many tower blocks there is a substantial financial cost to doing so. A requirement on local authorities to bring existing buildings up to the latest fire safety standards would therefore have to come with an appropriate funding mechanism.

- 10.3 The review recommends that there are sufficient layers of protection to ensure that building safety does not rely heavily on compartmentation, as there is a high risk compartmentation being breached during building use. The review suggests there are a range of other fire protection methods that could be incorporated into existing buildings, including additional stairwells. Not only does this have cost implications but it also has implications for the 'stay put' advice that the fire and rescue service has traditionally given to residents of high-rise buildings in the event of a fire, and for the LGA's own 'Fire safety in purpose built flats guidance'. The practical effect of this approach on 'stay put', including on the ability of firefighters to fight a fire if people are evacuating a building in numbers, should be explored further with the fire and rescue service.
- 10.4 While the review notes the impact of the competitive market in building control, it also talks about the possibility of that market being opened further. It does not however talk about creating the 'level playing field' that the LGA has argued is necessary between local authority building control and approved inspectors. We have argued that there should be absolute clarity on the required inspections (such as the number of them) and the standard of those inspections. The LGA should push the review to make specific recommendations in its final report to ensure there is a level playing field.
- 10.5 One of the review's findings was that approved inspectors are required under their code of conduct to demonstrate and maintain relevant qualifications and experience and are subject to audit by an independent body but local authority building control staff are not. Local Authority Building Control the body for council building control teams has been developing a competency framework with independent auditing for its members, which is in line with the LGA's philosophy of sector-led improvement to driving up standards. We would therefore want to be closely involved in any discussions about the possible creation of an independent body to audit councils' building control functions.

Social Housing Tower Blocks

Remediation work

11. Councils and housing associations continue to make progress in carrying out remediation work to the 45 council owned blocks and the 100 plus housing association tower blocks with combinations of aluminium composite material (ACM) cladding and insulation that have been found not to meet the building regulation standards following tests at the Building Research Establishment (BRE) over in July and August 2017. The update requested by MHCLG from councils and housing associations in November has

shown that remediation work has either been completed or is well progressed on a small number of tower blocks. In over half the blocks work to remove the ACM cladding has started or is already complete.

12. A key issue for councils continues to be that of costs, with some councils reporting that the tenders they have received for work have significantly exceeded original estimates for work. It is not clear why the costs have increased this much. In some areas it is because of additional work being added to the specification, but in others there appear to have been cost increases from firms providing materials and contractors to do the work. This may be reflect earlier concerns about the limited amount of expertise in the market place to do this work.

Alternatives to ACM and other metal composite material cladding systems

13. There is now a range of advice publicly available to building owners about what materials might replace ACM cladding and insulation combinations that do not meet the building regulation standards. This advice however is not consistent. MHCLG's Expert Panel published further advice for building owners following the publication of Dame Judith Hackitt's interim report. The Expert Panel repeated their advice from September that the clearest way of satisfying the building regulation standards is to use materials of limited combustibility or to use a system that has been shown to pass a large scale test conducted to the BS 8414 standard.
14. The Metal Cladding and Roofing Manufacturers Association (MCRMA) also issued a guidance note to its members in November on the safe use of rainscreen cladding facades. The MCRMA goes beyond the Expert Panel's advice and recommends that polyethylene ACM is not used in any building internally or externally, and that in buildings over 12 metres in height the external façade should only use materials of limited combustibility. The MCMRA guidance also raised questions in relation to the robustness of BS 8414 tests, something the LGA highlighted in its submission to the Building Regulations review.
15. The lack of clarity about what materials to use in remediation work is unlikely to become clearer for some time. We anticipate that other industry associations like the MCMRA will produce their own advice. As was highlighted earlier in the report MHCLG will be reviewing Approved Document B, which provides guidance on meeting the fire safety requirements of the building regulations following Dame Judith Hackitt's interim report. However this is likely to concentrate on restricting the use of desktop studies rather than resolve the issue of whether only material of limited combustibility should be used on the external walls of high-rise buildings.
16. To add to this confusing picture MHCLG published guidance on 11 December on the use of cladding materials other than ACM in external wall systems. This advice noted that there are other metal composite material (MCM) cladding products such as zinc, copper and stainless steel that can include combustible materials in the core sandwiched between the metal exterior of the cladding panel. It also pointed out that the metals used have different melting points so the fire performance of the product can depend on the metal used. In addition it pointed out that there are other materials such as high pressure laminates (HPL) that can be used in cladding systems which can also contain combustible materials. Where external wall systems incorporated materials that are not

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of limited combustibility, such as rigid foam insulation as well as ACM or other MCM panels, MHCLG advised building owners to check whether the system had passed a BS 8414 test. The LGA has been calling for MHCLG to issue guidance about the risks associated with other materials in addition to ACM so this is a step in the right direction. However it remains to be seen if building owners respond to the advice by checking whether any of their high-rise blocks have MCM or HPL cladding as well as if they have ACM.

Private sector blocks

Data Collection

17. Councils' work to gather information on the private high-rise residential buildings in their area and report this to MHCLG continue. Nine out of ten councils have either sent a nil return or provided a full return and MHCLG is now reviewing the information. The LGA has been in discussion with MHCLG about how to support those councils that have not yet been able to gather the information for a full return, a matter given an added sense of urgency by the fire in the 12 storey private residential block in Manchester over the Christmas period.
18. From this information MHCLG will then have an accurate picture of the number of private high-rise buildings with ACM cladding. Further work will then be required to identify what type of ACM cladding is present, and therefore whether it needs to be removed. Given the guidance issued before Christmas by MHCLG on MCM and HPL cladding panels, the LGA has suggested that the survey should be extended to also identify whether they are present on private high-rise buildings so there is a comprehensive national picture, and to prevent the information having to be gathered at a later point.

Legal powers

19. While many building owners have come forward to volunteer information about their buildings, in some instances identifying building owners and what type of cladding is on a building is taking a considerable amount of time for councils. As a result local authorities continue to have concerns about their ability to take action where landlords do not prove co-operative, and the resource implications of taking action under the Housing Act 2004. The LGA will continue to press MHCLG to ensure that councils are supported in any legal action they take under the Housing Act as part of the work in making private high-rise residential buildings safe.

Outcomes from the programme

20. Local authorities also remain concerned about what happens as the programme develops. As outlined at the last Board meeting there are concerns about:
 - 20.1 The resource implications for Fire and Rescue Authorities of having to inspect private high-rise residential buildings. The information councils have so far gathered suggests that there are considerably more private high-rise buildings with ACM than there are in the social housing sector.

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- 20.2 Who will pay for any remedial work, who will carry it out if the building owner is unable to afford to do so, and what happens if the building owner decides to remove or reduce any interim fire safety measures they have been told by the fire and rescue service they need to have in place? Councils and fire and rescue services may have to consider who takes responsibility for any remedial work, though they may not be able to afford to do the work even if they wished to do so, and may also have to consider what powers they have to enforce any interim fire safety measures.
- 20.3 The impact on leaseholders. The Secretary of State for Communities and Local Government in response to questions in the House of Commons in December and his statement to the House following publication of the Building Regulations review interim report stated he did not want to see private landlords pass on the cost of remediation work to leaseholders. It is not clear however that every building owner will be able to afford the cost of replacing the ACM cladding or the interim fire safety measures they have to have in place until that work is completed. This may then mean that substantive costs are passed on to leaseholders, which may impact on the willingness of building owners to pay for interim fire safety measures.
21. The LGA continues to discuss these issues with MHCLG and London Councils, and ensure that the implications of the building safety programme are fully worked through so that councils and fire and rescue authorities are provided with the resources they need.

Large Panel System built buildings

22. After concerns raised by residents on the Ledbury estate about cracks in the walls of the blocks, and the implications this might have for fire safety, the London Borough of Southwark commissioned Arup in July 2017 to investigate the cracks. Arup concluded that the cracks were actually gaps between the concrete panels that make up the buildings, resulting from the fact the four tower blocks were constructed using the large panel system (LPS) method and did not affect the strength of the blocks.
23. Southwark then asked Arup to check the structure of the blocks to ensure that they could withstand the kind of gas explosion that occurred at Ronan Point in 1968, as the Ledbury blocks were built to the same design and had piped gas. The gas explosion in a flat in Ronan Point had led to one corner of the building collapsing; as this resulted in much more damage than anticipated it was termed 'disproportionate collapse'. The structural appraisal by Arup concluded that the blocks had not been strengthened to a standard required to have piped gas, and this was cut off, pending a further, more thorough, investigation of all four blocks.
24. Arup submitted the conclusions of their further investigations to Southwark on 20 November. This report set out the findings of a structural assessment of the blocks on the Ledbury estate, and in particular their resistance to disproportionate collapse, their resistance to wind loading and the durability of the concrete structure. 19 flats across the four blocks were examined. These investigations found that:
- 24.1 The structure of the buildings was in good condition;
- 24.2 Each block met the wind loading requirements in the current building regulations;

- 24.3 But the blocks do not fully comply with the recommendations to prevent disproportionate collapse in large panel system buildings set out in the 2012 guidance produced by BRE and MHCLG to update the 1968 guidance.
25. Arup has therefore recommended that strengthening work to the floors, cross-walls and connections between external panels and internal walls is undertaken to the blocks. As carrying out the work will require tenants to be moved out of their flats, Southwark is costing the work, and then will work with consultants and local residents to look at all the possible options for the future of the tower blocks.
26. Issues with buildings constructed using the large panel system method have also been identified on the Broadwater Farm estate in Haringey. Following advice from MHCLG to local authorities after the problems had been identified on the Ledbury estate, Haringey instructed structural engineers to examine a number of large panel system buildings with a gas supply. Although these are low rise blocks, the engineers' feedback was that the blocks did not meet the standards to have gas supplies. As a precautionary measure to enable residents remain in their homes Haringey has removed all gas cookers from the blocks, provided all affected tenants with replacement electric cookers and fitted disruptor valves so in the event of a leak the gas supplies to the blocks is cut off, reducing the risk of an explosion.
27. The Arup and Haringey findings may have implications for other LPS buildings, and MHCLG and BRE are currently considering the wider implications of the Arup report. One possibility is that councils will have to commission structural surveys if they have not already done so to check that the strengthening work, which should have been carried out was actually done, and that any they own LPS buildings comply with current building regulations and the 2012 MHCLG and BRE guidance.

External Wall Insulation systems

28. On 11 December MHCLG published advice for building owners with high-rise residential blocks with external wall insulation (EWI) and either a render or brick-slip finish. It had been drawn to MHCLG's attention that in some instances EWI had fallen off buildings including from one in Glasgow, fortunately to date not injuring anyone. This has been the result of either poor installation or inadequate structural calculation methodologies.
29. MHCLG's advice is that where a recent review of the EWI has not been undertaken, then a structural engineer or chartered surveyor should be instructed to inspect the structural integrity of the EWI particularly where the building is subject to high wind loading for example due to its height or in an exposed location. MHCLG's recommendation is that there is both a visual inspection of the EWI and that the design records for the system are assessed for their adequacy. Where necessary further non-invasive or invasive may be necessary to ensure the EWI has been properly installed.
30. The issuing of MHCLG's advice leaves a number of questions unanswered at this stage. It is not clear how widely EWI have been used in high-rise buildings, though the LGA has heard suggestions that energy suppliers used such insulation when fitting high-rise buildings as part of their commitments and obligations under various energy efficiency schemes such as the Carbon Emissions Reduction Target, the Community Energy Saving Programme and the Energy Company Obligation. It is also unclear how

widespread the problems with the design or installation of EWI are, and whether MHCLG's advice is comprehensive enough. The LGA is therefore considering seeking information from member authorities on both the extent of use of EWI and how well it has been installed to gauge whether there is an issue for council owned high-rise blocks. As further information is obtained members will be kept informed.

Implications for Wales

31. The issues set out in the this report are being addressed by the Welsh government and local authorities in Wales.

Financial Implications

32. The LGA's work in response to Grenfell Tower continues to be intensive, however it has been met so far from existing resources.

Next steps

33. Members are asked to:

33.1 Note and comment on the findings and direction of travel outlined in the interim report of the Building regulations and fire safety review.

33.2 Consider the suggested areas of LGA focus for the second phase of the review's work set out in paragraph 10 and make recommendations to the LGA's Grenfell Task and Finish Group.

33.3 Note and comment on the LGA's building safety programme work.