

Mr Clive Betts MP
Chair, Housing, Communities and Local Government Committee
House of Commons
London
SW1A 0AA

20th October 2020

Dear Mr Betts,

Like many others, I watched yesterday's evidence session in dismay and frustration. Unsafe buildings will eventually be rectified, but the financial fallout will burden the lives of many innocent people and families for years to come. The irony didn't seem to occur to Lord Greenhalgh that he blamed leasehold law for this betrayal whilst simultaneously discussing *new legislation* that further weakens the ability of residents to fight these unjustifiable costs. Ministers have consistently said that building owners should do the 'right thing' and it's time Government led by example. I will leave more capable others to pursue this as I want to pick up on several fundamental flaws in his team's logic with regard to future fire-safety policy.

I really hope the new Regulator succeeds in preventing future catastrophes in high-rise buildings and driving culture change in the sector that delivers them. Discussions yesterday highlighted the concern of creating a two-tier system. Before the combustible ban was introduced, there was a relatively modest increase in material performance requirements set out in Approved Document B for buildings above 18m (most notably the preclusion of combustible insulation without a BS 8414 test) but common building and regulatory control. The 2018 combustible-ban made that differential slightly greater, and the new regulator with all its obligations will increase it significantly further.

The new Regulator introduction is a necessary response to our fire safety problem but insufficient due to risk being viewed at an 'individual event' level, rather than the risk to society as a whole. Lord Greenhalgh repeatedly referred to the fact that high-rise buildings are inherently more risky than low-rise but there has been an unhealthy preoccupation with only preventing another Grenfell-like disaster, rather than create a safer society by addressing the fundamental flaws that plague our fire-safety policy. That would be an 'holistic approach'. In an airplane crash many more people are likely to die in a single event than in a road traffic accident. However, many more people die in car accidents each year as they are far more common, so vehicle safety is rightly a focus of continual improvement to reduce overall transport fatalities.

I totally agree that it is impractical to extend the scope of the new regulator to the hundreds of thousands of multi-dwelling and public buildings below 18m. Thankfully, it's also unnecessary, as lower-risk buildings are generally much less complex to manage and maintain. However, this is broadly where all the major fires have occurred since Grenfell and we're being repeatedly reminded of their potential to produce a level of death, injury, trauma, stress, misery and disruption that is *unacceptable to society, if not the fire and rescue services*. It is however, possible to significantly reduce and perhaps almost eliminate multi-fatality and total-loss risk in this less complex sector through the contrastingly simple introduction of a few critical *design* principles. *Design* was an area that Dame Judith's remit deliberately ignored, but it plays a vital role in fire safety and in particular the too-often overlooked but arguably most important fire safety layer of *prevention*.

I've listened over the past three years to many experts in various fields proposing their solutions to improve fire safety. Sometimes solutions from different sources appear as disjointed alternatives, but my conclusion is that there are three, consistent 'stand-out' complementary design factors that embody the clearest thinking, wisdom and cross-sector experience that should form the cornerstones of *affordable* fire-safe design.

These are:

- a. Non-combustible structures (or at least the external walls which cannot be sprinklered)
- b. Sprinklers (for fires that start inside where combustible content cannot be controlled)
- c. Multiple escape routes (when fires can't be prevented or contained for some reason)

Lord Greenhalgh hinted at the importance of design when he mentioned his vision of a systemised, 'platform' approach to construction, reminiscent of Victorian pattern books. A Victorian approach would be too prescriptive to be acceptable today, but to rely on a highly fragmented offsite industry that occupies both ends of the competency spectrum to deliver fire safety through platform or systemised solutions is both wishful thinking and beyond our control. There are some extremely professional businesses in the modular sector, however, there is virtually no relevant guidance in Approved Document B to address the unique fire-safety challenges that modular construction creates. As such there is very little consistency in design approach which combines to leave building control inspectors unable to confidently evaluate the safety or compliance of what they're looking at.

Furthermore, we lack an adequate testing regime to verify key design details and make standardised comparisons between different manufacturer's systems. It should be obvious that this replicates the historic problems with classifying the fire performance of composite materials that led to such disastrous consequences. It would be inexcusable and reckless to fail to learn from that. Work is currently ongoing to improve the existing testing regime relating to external wall systems and this itself will take several years. I'm not aware of any meaningful progress on a test and classification standard regime for three-dimensional modular fire safety.

In July, the polyurethane-insulated, timber-sheathed modular Moorfield Hotel was completely destroyed by fire in the Shetland Isles, despite the prompt attendance of numerous fire crews. Only yesterday, a six-tower block modular scheme in Hounslow was evacuated due to fire safety concerns. I periodically see and hear examples of modular buildings being built with inadequate or non-existent party-wall cavity barriers. If you put combustible material in the cavity of an external wall, you have a chance of fighting a resulting fire. If you bury that combustible cavity-structure deep within the building, firefighters can do little more than watch as it burns to the ground as at Moorfield Hotel. These are very obvious warnings that MHCLG must consider.

We need new design guidance for all multi-dwelling units and public buildings based on my three-point plan above *more than ever*. We had a two-tier system before the new Regulator but the proposed measures exacerbate the issue. Part of the problem with the EWS1 chaos is that buildings under 18m have no external wall requirements set out in AD B, so everybody has unsurprisingly had a different view of what is 'adequate'. That wasn't a problem until MHCLG advice effectively led to buildings of any height with combustible materials needing a risk-assessment. This demonstrates a fundamental problem with expecting designers to create ad-hoc 'risk-based solutions'. This would lead to *unimaginable chaos* with the mortgage, building control and insurance industries having no standardised compliance reference points at all. Ash and Lacy supplies a project the size of Grenfell Tower *every six days*. The prospect of each one varying in its design and construction due to individual interpretations of risk is unmanageable at both design and compliance levels.

It's nearly five months now since the conclusion to the MHCLG consultation that proposed lowering the combustible ban to 11m and we've heard nothing. Some of the modular builders that MHCLG is placing great hopes on use combustible materials in their systems and I fear this may obstructing the much-needed lowering of the threshold. The modular tail should not wag the 'onsite' dog. As Legal and General have shown, it's not insurmountable for modular builders to replace their combustible materials as there is now a non-combustible alternative for almost every construction element. This also has the neat benefit of addressing the problem of modular buildings often having combustible materials in inaccessible cavities.

Lord Greenhalgh mentioned with some confidence that the new Regulator would have covered The Cube student block in Bolton. Ostensibly he is correct, however that building was probably built at 17.9m to avoid the aforementioned AD B requirements at 18m. Under the new regulatory threshold, new 'Cubes' with no external wall requirements will be created *at six storeys* just below the scope of the new Regulator.

Similarly, the misalignment of the new regulatory threshold at 'seven stories or more' with the combustible ban's 'above 18m' creates another potential problem. Many seven-storey buildings were built to avoid the 18m external wall requirements and therefore the regulator is going to oversee and assess the risk of potentially thousands of buildings that were built with no cladding material guidelines. EWS1 suggests this will be a considerable challenge to deal with. The problem isn't that risks can't be assessed; it's that nobody ever agrees. Without the introduction of a combustible ban at 11m to remove the incentive to build specifically at this level, the new Regulator should expect this awkward category of building to grow quickly.

The new 'above six storey or above 18m' definition means there are now FIVE height and storey thresholds with different associated regulatory, cladding and insulation requirements. (Rather than clutter this letter further, I've described them along with a possibly unhelpful flowchart as an Appendix.) This confusion and complexity is a manifestation of MHCLG's failure to develop elegant and coherent solutions that industry needs so badly.

To recap, my conclusions and recommendations on these topics are:

- a. The new Regulator will improve safety in high-rise buildings and drive culture change ...
- b. ... but that's an unacceptably incomplete response to our national fire safety situation that fails to address wider fire safety problems in medium-risk buildings, where we now see regular, devastating fires.
- c. This is compounded by making the current two-tier system even more dysfunctional, with greater motivation than ever to build just below a new, onerous regulatory threshold
- d. The medium-risk sector (arguably all multi-dwelling units and public buildings) is too vast for the new regulator to be an effective and efficient solution ...
- e. ... but key, best-practice 'design' principles can largely address this sector whilst mitigating the two-tier potential problem and the potential perils of rapidly increasing uptake of Modern Methods of Construction.
- f. Those three cornerstone design principles for fire-safe buildings are:
 - a. Non-combustible structures
 - b. Sprinklers
 - c. Multiple escape routes
- g. The offsite sector will not yield a satisfactory short-term alternative to a low-rise combustible ban:
 - a. It's too small, fragmented and unproven
 - b. Modular buildings are even more vulnerable to the dangers of combustible materials due to unavoidable, cavity party walls and floors.
 - c. We lack the testing and statutory guidance framework to confidently underpin a safe modular/offsite design and building control system
- h. Expecting industry to 'raise the bar' will forever be undermined by the Part B bar being set in statute at the health and safety level by Regulation 8 of the Building Regulations. It is hugely damaging and it must change if we are to see permanent, far-reaching change in our building industry that rewards excellence and drives out incompetence.
- i. Accordingly, the very purpose of Building Regulations should be reviewed and clearly restated to all stakeholders, so that this moment in regulatory history is remembered for a great leap forward in building resilience and standards.

Finally, I implore you to not accept anything less than the Government swiftly covering the full of costs of its fire safety failures. Let's give people some good news at least in 2020.

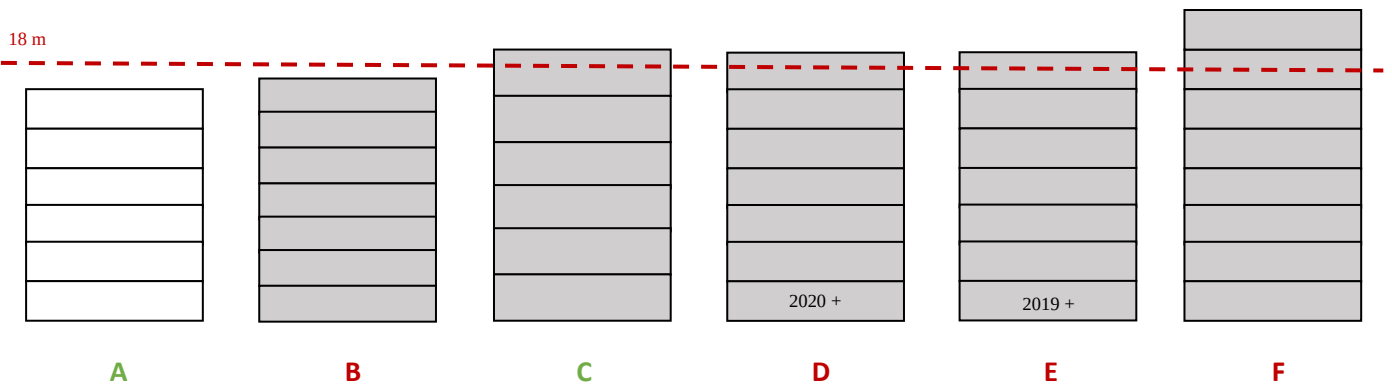
Yours sincerely,



Dr Jonathan Evans

Chairman
Ash and Lacy

APPENDIX - How MHCLG have created FIVE different 18m rules.



- A. No part of a wall over 18m – no cladding or insulation requirements. Outside regulatory scope.
- B. 7 storeys or above regardless of height – height of wall AND top storey and date of construction determine material requirement (see flowchart). Within regulatory scope.
- C. part of a wall over 18m, not 7 storeys and no 'storey over 18m' – cladding, but no insulation requirements. Outside regulatory scope.
- D. part of a wall over 18m, 7 or more storeys and no 'storey over 18m' – cladding, but no insulation requirements. Within regulatory scope.
- E. As D. but post 2019 AD B (combustible-ban) - no cladding or insulation requirements (i.e. worse than pre-combustible ban). Within regulatory scope.
- F. With a storey over 18m (will have part of a wall over 18m (there is an exception)) – cladding and insulation requirements determined by date of construction. Within regulatory scope.

