

Review of the ban on the use of combustible materials in and on the external walls of buildings including attachments

Respondent Details

Question 1	Respondent details
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Position (if applicable)	Chief Executive
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Please state whether you are responding on behalf of yourself or the organisation stated above	Organisation

Question 2	Select one
Please indicate whether you are applying to this consultation as:	
• Builder / Developer	
• Designer / Engineer / Surveyor	
• Local Authority	
• Building Control Approved Inspector	
• Architect	
• Manufacturer	
• Insurer	
• Construction professional	
• Fire and Rescue Authority representative	
• Property Manager / Housing Association / Landlord	
• Landlord representative organisation	
• Building Occupier / Resident	
• Tenant representative organisation	
• Trade Association / Trade Body	
• Other interested party (please specify)	Yes – umbrella body for the built environment professions

Question 3	
Do you agree that hotels, hostels and boarding houses should be included in the definition of relevant buildings in Regulation 7(4)?	<p>YES</p> <p>These buildings should be included as they present a risk for occupants that are unlikely to be familiar with the building layout and provisions for means of escape. Consequently residents are more likely to need a longer Required Safe Egress Time (RSET) in order to evacuate safely in the event of a fire. The speed at which fire could spread across combustible cladding has the potential to reduce the Available Safe Egress Time (ASET) thereby compromising the ability of occupants to escape, which places them at substantial risk of injury or death.</p>
Please provide evidence to support your answer.	<p>The Building Regulations 2010 No. 2214. Building and Buildings, England and Wales http://www.legislation.gov.uk/ukfs/2010/2214/pdfs/uksi_20102214_en.pdf (accessed 01.04.2020)</p> <p>Home Office Fire Statistic Data Tables: Information on incidents attended by Fire and rescue services. Non-dwelling fires attended – FIRE0301:Primary fires, fatalities and non-fatal casualties in other buildings by motive and building type, England https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables (accessed 24.05.20)</p>
Should any other building types be included within the scope of the ban?	<p>YES</p> <p>All residential buildings due to their</p>

	<p>associated sleeping risk should be included, particularly where there is potential for multiple fatalities; i.e. all buildings in Purpose Groups 1(a), 1(b), 1(c), 2(a) and 2(b) as the speed at which fire could spread across combustible cladding places those in any sleeping accommodation at significant risk. In so doing this would extend the ban to include residential buildings such as halls of residence and residential colleges. There is also a case to extend the ban to buildings where there is a reduced capacity for escape (eg hospitals and care homes) and where young people assemble (eg schools and nurseries) and public assembly buildings (eg theatres, libraries and community centres)</p>
<p>Please provide details and evidence to support your answer.</p>	<p>The Building Regulations 2010 No. 2214. Building and Buildings, England and wales http://www.legislation.gov.uk/uks/2010/2214/pdfs/uksi_20102214_en.pdf (accessed 01.04.2020)</p>

Question 4	
Do you agree that the height threshold of the ban should be reduced to at least 11m and above?	<p>YES</p> <p>11m / 4 storeys is the logical choice, as favoured by the National Fire Chiefs' Council (NFCC). This also then presents a logical position given future internal sprinkler provision regulations</p> <p>There should be a provision for consistency with devolved governments to avoid confusion.</p>
Is there another lower height threshold that should be considered? Please provide evidence.	<p>YES.</p> <p>Considerations should be given to higher risk Residential (institutional) buildings under Purpose Group 2(a) - such as care homes, which may require lower height thresholds. A risk-based approach should be considered, rather than relying only on trigger heights as the key criteria for making these decisions. For example, Rosepark Care Home was only 2 storeys yet the fire there resulted in 14 deaths. We would welcome further research into this aspect.</p>
Do you agree that an appropriate research project regarding building risk should be carried out to inform further review of the scope of the ban?	<p>YES</p> <p>We would support further research, to identify the effect of various factors which might represent a hazard and draw up a cumulative risk matrix for inclusion within these regulations.</p> <p>However, further research should not delay the obvious need for the scope of the ban being widened. Again as already stated above we cannot stress strongly enough our concern that the</p>

	<p>main focus must be high 'risk' and not just high 'rise'.</p>
<p>Please suggest the type of evidence you consider should be included in further review of the height threshold of the ban.</p>	<ul style="list-style-type: none"> • Method of construction / amount of combustible material / compartment size. • Amount of detail and certainty within Regulation 38 data. • Amount of maintenance and condition of Fire Protection systems • Size / Use of building. • Evacuation times • Studies of evacuation methods, consideration of different evacuation methods required to support the fire strategy for different building types e.g. progressive horizontal evacuation, stay put, phased evacuation • No and size of evacuation stairs • Alarm system • Fire suppression facilities • Distance to adjacent buildings • Fire Fighter access and risk of occurrences that may prevent FRS intervening (e.g. impediment of vehicular access, etc) • FRS data from 'post fire reviews'. • Studies of human behaviour during an evacuation, particularly for elderly and physically/mentally incapacitated people including the risk that these people are not known to be present, and human behaviour in terms of response / lack of response to alarm fatigue (e.g. Bolton Cube fire).

	<ul style="list-style-type: none"> • Computational Fire Engineering studies (computer models for fire development and growth coupled with evacuation software e.g. Smartfire and Exodus) • Use of timber. We are aware of significant concern from organisations with an interest in timber and sustainability, and how this may affect timber structural components. Timber structures are used successfully in buildings in other countries to heights well above 11m and the difference between fire risk in timber cladding and fire risk in timber structures should be fully understood before taking steps that may prohibit sustainable timber unintentionally.
<p>Please provide any evidence you believe should be considered in further review of the height threshold of the ban.</p>	<p>MHCLG Technical housing standards – nationally described space standard. March 2015 https://www.designingbuildings.co.uk/wiki/Technical_housing_standards_-_nationally_described_space_standard (Accessed 24.05.20)</p> <p>The London Plan – The spatial development strategy for London (consolidated with alterations since 2011) March 2016 https://www.london.gov.uk/sites/default/files/the_london_plan_malp_final_for_web_0606_0.pdf (Accessed 24.05.20)</p> <p>National Fire Chiefs Council (NFCC) response to the MHCLG call for evidence on the Technical Review of Approved Document B (Fire Safety) https://www.nationalfirechiefs.org.uk/rite/MediaUploads/Grenfell/Technical_review_of_ADB_-_1_March_2019_-_</p>

	<p>FINAL.pdf (Accessed 24.05.20)</p> <p>Home Office Fire Statistics Data Tables: Information on incidents attended by Fire and Rescue Services</p> <p>https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables</p>
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Question 5	
<p>Do you agree that metal composite panels with a polyethylene core should be banned from being used in external wall construction of any building regardless of height or purpose?</p>	<p>There have been fatal fires where ACM with a polyethylene core has been installed and as such banning metal composite panels with a polyethylene core would be a step in the right direction.</p> <p>There are many other combustible materials that are used in the construction of new buildings and refurbishment of existing buildings that warrant further scrutiny and testing.</p> <p>The RICS was part of the Steering Group for the BRE Global led 'Fire Performance of Cladding Materials Research' commissioned by MHCLG under contract CCZZ17A36. The research which was aimed at understanding the burning behaviour of a small selection of non-ACM cladding products was published 1 April 2020. The report (Number: P111324-1019) makes a number of observations. Two of particular interest are: (a) the comment that although not part of these tests, due to the unavailability of Zinc Composite Panels with a PE core, <i>'results and comparison between the FR Zinc Composite Material (ZCM) and the FR ACM suggest that Zinc Composite Panels with a polyethylene core may give a similar fire performance to PE cored ACM panels'</i>; (b) that further research work is carried out with a variety of different materials and using full scale testing. These recommendations are supported by CIC.</p>
If no, why not?	N/A

If their use was to be restricted, do you agree with the proposed definition?	<p>YES</p> <p>The proposed definition 'with a core composed of 30 percent or more of polyethylene by mass' would be consistent with other countries that have already restricted its use.</p>
Please provide evidence to support your answer.	<p>'Fire Performance of Cladding Materials Research' commissioned by MHCLG under contract CCZZ17A36 - published 1 April 2020. (Number: P111324-1019)</p>

Question 6	
Which components, if any, do you consider should be included in the list of specified attachments in Regulation 2(b) and why?	<p>In general, we would recommend considering alternative approaches to attachments. For example, can attachments still be fitted provided they are a set distance apart to prevent the rapid spread of fire over a whole facade? Other sections of the Approved Documents will specify minimum distances for safe use of certain building components (e.g. flue outlets) – has any research into this been made? Can tests similar to BS 8414 be made for specified attachments to avoid banning? This will help to avoid conflict in cases like the British Blind and Shutter Association legal case.</p> <p>CIC also supports the significant research undertaken by the Centre for Window and Cladding Technology and the Society of Façade Engineers to develop clear definitions and industry interpretation of Regulation 7 and Requirement B4, to highlight issues and provide clarity on issues such as</p>

	<p>solar shading, balconies, rainwater goods and lightning conductors. CIC recommends that MHCLG supports this work.</p> <p>CIC refers to the response of the RIBA for further information relating to Solar Shading and Balconies.</p> <p>If the list of specified attachments is retained there is a case to include Green walls</p>
Do you agree with the proposed definition of solar shading products?	YES
If no, what other definition would you propose and why?	N/A
Do you agree that solar shading products need to achieve class A2-s1, d0 or A1 in line with the requirements of the Building (amendment) Regulations 2018?	YES
Do you agree that retractable awnings fitted to the ground storey should be exempted?	YES
If yes what restrictions, if any, may be placed on these.	<p>They can be exempted providing they do not impact on means of escape from the building (Especially final escape exits / protected routes). They should be of limited combustibility/ constructed from materials with a reaction to fire performance typical for flexible materials applied on construction sites / Marquees etc.</p> <p>They are sometimes the subject of deliberate arson, and that can result in a fire spreading to the storey above.</p>

Question 7	
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<p>Which components, if any, do you consider should no longer be included in the list of exemptions in Regulation 7(3) and why?</p>	<p>a) Cavity trays when used between two leaves of masonry; b) Any part of a roof (other than any part of a roof which falls within paragraph (iv) of regulations 2(6)) if that part is connected to an external wall; c) Door frames and doors; d) Electrical installations; e) Insulation and water proofing materials used below ground level; f) Intumescent and fire stopping materials where the inclusion of materials is necessary to meet the requirements of Part B of Schedule 1 of the Building Regulations; g) Membranes; h) Seals, gaskets, fixings, sealants and backer rods; i) Thermal break materials where the inclusion of the material is necessary to meet the thermal bridging requirements of Part L of Schedule 1 of the Building Regulations; or j) Window frames and glass.</p> <p>We would echo the RICS comment here that we must confirm what we are trying to achieve, and consider the actual risk of using these components in different situations, rather than blanket bans. CIC recommends that for now, these remain within the list of exclusions, but this list is kept under annual review.</p>
<p>Which additional components, if any, should be included on the list of exemptions in Regulation 7(3) and why?</p>	<p>As above.</p> <p>Under exemption f) regarding intumescent materials needed to meet the requirements of Part B of building</p>

	<p>regulations, a clearer term would be to consider the use of “fire resisting systems”. The current wording could be interpreted as preventing the use of primers, and /or sealers which are used in conjunction with some intumescent materials, and/or other inorganic insulation systems to ensure the durability of the system and maximise product lifetime.</p>
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Question 8	
<p>Do you agree that cavity trays should, by temporary relaxation for 18 months, be exempted from the requirements of Regulation 6(3) and 7(2)?</p>	<p>YES</p> <p>During this time consideration should be made of their actual contribution to either uncontrolled fire growth or fire spread. It is worth considering why cavity trays would be banned while window frames, which could also promote fire spread to a cavity in a fire, would be exempt?</p> <p>We are not aware of significant fires being accelerated as a consequence of the presence of plastic cavity trays.</p>
<p>If yes, what if any conditions should be imposed on their use?</p>	<p>Conditions should only be imposed if and when sufficient and robust evidence is provided to justify so.</p> <p>We are not aware of any areas of concern.</p>

Question 9	
Do you agree that laminated glass in balcony construction should continue to have to achieve A2-s1, d0 classification or A1?	<p>OPINIONS AMONGST CIC MEMBER BODIES ARE MIXED</p> <p>We recommend that further research through full-scale testing is used to help develop guidance in the use of laminated glass in balconies.</p> <p>In the meantime, applications should demonstrate how balconies meet the regulatory requirement of B4, and where applicable, Regulation 7.</p>
Please provide evidence to support your answer where possible and discuss specific materials or products.	<p>It is important to define laminated glass correctly in the first instance, the consulation document definition is overly generic. Laminated glass can take many forms of interlayer materials and multiple layers of glass.</p> <p>Currently there is no test method that evaluates the performance of laminated glass as a balustrade in balcony construction.</p> <p>The current EN13501-1 Classification method is not suitable for laminated glass as detailed in the Glass for Europe position paper</p> <p>Classification of reaction to fire of glass products – Recommendation from Glass for Europe 2015</p> <p>Research into a more appropriate test method needs to be carried out, this could be undertaken within the CPA products testing workshop in association with PRP Architects and Adroit Economics</p> <p>In the interim, a relaxation of the ban</p>

	<p>should be considered to allow this work to be undertaken, adoption of the Transport for London (TfL) criteria as detailed in Guidance document G-085 – ‘Code of practice – Fire Safety of Materials and Fire Safety of Specific Items and Materials Used in the Underground’ may be a way forward.</p> <p>Laminated glass in balustrades must be evaluated as a system with consideration being given to flooring and soffit construction as well as the external façade.</p>
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Question 10	
Do you agree that additional clarification in Approved Document B, that roofing membranes are not required to achieve A2-s1, d0 classification or higher when used as part of a roof connecting to an external wall, is not required?	<p>YES</p> <p>Additional clarification would be welcomed as it would be unduly onerous to require roof membranes to have an A2-s1-d0 classification.</p> <p>It would be helpful if a note could be added to confirm that when a roof membrane links into or connects with an external wall for weather tightness, it is not considered as an element of the external wall and therefore does not require an A2-s1-d0 classification.</p>
Please provide evidence to support your answer where possible and discuss specific materials or products.	

Question 11	
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Do you agree with the proposal of expanding the exemption of the use of water proofing and insulation material from below ground level to up to 250mm above ground level?	YES
If yes, what other conditions should be imposed on their use if any?	If water proofing and insulation material continues up to 250mm above ground level, it is difficult to conceive how that might be a risk to fire spread to the ground floor storey and above provided that the external wall system is compliant. However, a risk analysis should be included and documented to support this.

Question 12	
Do you agree with the proposed expansion of classifications required for materials used horizontally to include Class A2fl-s1 and Class A1fl?	YES
If no, please explain why and provide evidence where possible.	N/A

Question 13	
Do you agree that Regulations 7(2) and 6(3) should be amended to reference the current BS EN 13501-1 standard?	YES
If not, please explain why?	N/A

Question 14	
<p>Please provide any additional evidence on costs, risks and benefits which should be considered in an assessment of impacts of this consultation.</p>	<p>We have a concern that the Building Safety Programme is becoming the fire and structural safety programme. The response to the Building a Safer Future consultation demonstrates a growing emphasis on fire and structure at the expense of any other aspect of life safety, let alone the health and welfare of people in and around buildings.</p> <p>There is a significant potential problem of overheating in buildings.</p> <p>Overheating is already a problem – it is hard to quantify because all the cases that are going on are being settled confidentially out of court. Further published, peer reviewed evidence (from UCL) suggests a growing problem, leading to several thousand excess deaths per year by 2050.</p> <p>The connection to this consultation on combustible materials is that it does not seem to acknowledge that overheating is a problem, or that external shading is one of the measures to mitigate it.</p> <p>There needs to be a commitment to some specific research into the influence of external shading devices on the external spread of fire.</p> <p>There is a risk that, as happened with the ban on combustible cladding over 18m in height, proposals to lower the trigger height could have adverse implications for the valuation of existing buildings over 11m. To some extent, as MHCLG are already aware, there is already an issue with buildings</p>

	<p>below 18m height with combustible cladding being adversely affected by the risk appetite of banks and lenders and this could become exacerbated. CIC remains ready to support the work of the RICS with government in supporting the ban to 11m and addressing the inevitable valuation lending issues.</p>
<p>Are you aware of any particular equalities impacts for these proposals? How could any adverse impact be reduced and are there any ways we could better advance equality of opportunity or foster good relations between people who share a protected characteristic and those who do not? Please provide evidence to support your response.</p>	<p>We remain concerned that in all types of buildings where there may be vulnerable people sleeping, who may have physical and/or mental health disabilities, that a ban on buildings over 11m only will not take into account their particular needs. The 11m+ ban assumes people are able to evacuate in buildings below 11m where a Stay Put policy is unlikely. We recommend these life safety issues are given further consideration .</p>

Graham Watts OBE
Chief Executive
CIC
24.05.20