

## 77354\*-How to respond (Annex A)

Please use the table format below to feedback comments for Technical changes relating to ADB. Once complete, email this document to [ADBconsultation@communities.gsi.gov.uk](mailto:ADBconsultation@communities.gsi.gov.uk)

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Please state whether you are responding on behalf of yourself or the organisation stated above	Responding on behalf of the organisation but in a number of cases, because of difference of opinions, majority and alternative views have been included and are shown in contrasting coloured type face. See column headers for reference

<b>Please indicate whether you are applying to this consultation as:</b>	<b>Select one</b>
Builder / Developer	
Designer / Engineer / Surveyor	
Local Authority	
Building Control Approved Inspector	

Architect	
Manufacturer	
Insurer	
Construction professional	
Fire and Rescue Authority Professional	
Property Manager / Housing Association / Landlord	
Landlord representative organisation	
Building Occupier / Resident	
Tenant representative organisation	
Other interested party (please specify)	Trade Association

**Instructions for completing the table:**

**Please provide comments in the table below, bearing in mind the following 4 principals.**

- What issues need to be resolved?
- Why should they be reviewed?
- What evidence already exists?
- What are the potential impacts of change
- Please provide any evidence you or your organisation have to support your suggestion

**If your comment relates to a specific area of technical guidance in ADB, please also provide the following:**

- The specific Approved Document B Volume number you are referring to (Volume 1 or Volume 2)
- The specific section and subsection you are referring to (e.g. section 2.5)
- The specific paragraph (e.g. 2.5(a)(i)) and if applicable the specific diagram, table, note or appendix you are referring to.
- Please ensure you clearly detail your justification for change in the comment box.
- Please clearly detail your proposed amendment in the proposed change box.

Area of fire and safety	ADB area	Relevant section of ADB (if applicable): volume/paragraph/diagram number	What issues need to be resolved and why should they be reviewed?  <b>NOTE majority views in black type face, alternative views in blue type face</b>	What evidence already exists?  <b>NOTE majority views in black type face, alternative views in blue type face</b>	What are the potential impacts of change?	Details of evidence provided
General	Scope of fire safety		<p>Fire regulations should reflect the MHCLG objective of <i>acting in the public interest</i>. They should therefore extend to protect health (inc. residents, neighbours, firefighters), property, and the environment. Fire regulations should be thought of as fire <i>protection</i>, rather than fire <i>safety</i>. Prevention should have a greater priority than rescue.</p> <p><b>Some members felt there needed to be a more holistic approach to 'as-built'; buildings designed, categorised and risk-profiled by intended use.</b></p> <p><b>Fire safety addressing the whole building and its site.</b></p> <p><b>Bring refurbishment in to scope.</b></p> <p><b>Wider inclusion of fire suppression systems.</b></p> <p><b>Identify best practice to overcome the present boundaries between ADB and BS</b></p>	<p>Shurgard, Croydon - hundreds of people lose their entire possessions.</p> <p>Ocado CFC - hundreds evacuated from homes due to toxic smoke.</p> <p>Abnormal cancer rates in firefighters.</p> <p>Contamination of land and buildings surrounding Grenfell</p> <p>Glasgow School of Art - historic building loss.</p> <p><b>Some members pointed out that in</b></p>	<p>Reduced costs of reclaiming land and recycling buildings.</p> <p>Reduced healthcare costs of long term ill.</p> <p>Protection of culturally important buildings.</p> <p>Benefit to economy and education from less disruption.</p> <p>Economy benefit from reduced losses.</p> <p>Reduced plastic consumption.</p>	

			<p>9999</p> <p>A growing emphasis (per Hackitt) on specifiers and contractors taking responsibility for real-life performance. More focus on active and passive fire protection solutions. Changes should not impact on the introduction of innovative methods or materials.</p>	<p>most cases there is no evidence as to whether these issues are related to the cladding or internal contents</p>		
	Purpose Groups		N/A			
	Specialised housing and care homes		N/A			
	Trigger heights and thresholds	<p>Section 12 Vol 2 (although 8m threshold may affect Vol 1)</p>	<p>Current guidance on combustible materials with regard to height and use is confusing and does not reflect what has been learned since Grenfell.</p> <p>We believe there is no evidence to support 18m as a threshold and therefore it must not be used as a starting point or default height in the event of failure to agree an alternative.</p> <p>There was a view expressed by some members that the MCRMA did not have the required knowledge or expertise to recommend a height at which fighting fires became significantly more difficult</p> <p>The Government mandates an 18m cut-off on specific building types in England; the Hackitt report recommends a more precise 10 storey cut-off. Decisions regarding the use of sprinklers, alarms,</p>	<p>Proposed combustible materials threshold change to 11m in Scotland.</p> <p>8m Class B reaction to fire threshold in Germany.</p> <p>40' combustible material threshold in USA for full scale testing.</p> <p>"The Ministry of Housing, Communities and Local Government's (formerly the</p>		

			<p>vents, evacuation lifts or the materials of which the building is constructed are best made on engineering grounds, by reference to the intended use of the building, the intended Purpose Group(s) and the required evacuation/fire-fighting profile. And the specifier, contractor and building owners' respective attitude to the personal and professional risks attendant upon those decisions (per Hackitt).</p> <p>There should be greater consultation with the public than with industry bodies in determining the scope and objectives of fire safety regulations.</p> <p>There was an alternative view that greater public consultation would result in more emotive rather than technical engineered solutions</p> <p>A2 or better materials are readily available and the cost differential to Class B will reduce as they become the dominant class and new products enter the market (which is happening quickly).</p> <p>An alternative view was expressed that this could restrict material choice and innovation and increase costs</p> <p>We do agree that the design of buildings that do not pose a potential impact on the public should remain the decision of the owner in conjunction with the principal designer (as CDM).</p> <p>Members strongly feel that there is no</p>	<p>Department for Communities and Local Government) job is to create great places to live and work, and to give more power to local people to shape what happens in their area."</p>		
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			<p>evidence to exclude hotels, office buildings etc from the A2+ requirement.</p> <p>Some members took a view that the requirement should apply as per the November 18 revision to the Building regulations</p> <p>We propose a much simpler set of categories:</p> <ol style="list-style-type: none"> <li>a. 'public interest' buildings of any height</li> <li>b. Buildings over 11m or with a story over 8m</li> <li>c. Buildings of low risk to the public*</li> </ol> <p>Cat a. and b. entire external walls to be A2 or better. Class c. (regardless of height) to be Class C (some opinions are D for insulation, certainly not E) or better.</p> <p>Cat a. buildings includes supermarkets, schools, hospitals, museums, leisure centres, any building generally open to the public including storage centres, large buildings in residential areas, care homes etc.</p> <p>*Cat c. very low risk buildings could include: non-livestock agricultural buildings, low occupancy commercial buildings such as warehouses and distribution centres that either do not contain large quantities of potentially toxic materials or are far from residential areas.</p> <p>We reject the suggestion that very high public interest buildings should be A1 as there is currently no evidence to support</p>			
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			<p>this. This could be investigated.</p> <p>This approach was not shared by all , who felt that the current classification of buildings (as per November 18 revision) was adequate. The case for a minimum performance for the cladding for <u>all</u> buildings was agreed but some felt this should be set at E (ie the product must have been subject to formal testing and classification)  'Class E or less' products to be phased out.</p> <p>PE ACM banned from all construction, inside and out.</p>			
	Age Distribution		N/A			
	Smoke and Toxicity		<p>It is in the public interest that regulation of smoke and toxicity must be introduced as part of an overhaul of the testing and certification regime.</p> <p>Some members felt that there was insufficient evidence relating specifically to building envelope products and that:-  All materials that combust give off gas that is harmful when breathed; this includes the contents as well as the fabric of a building. Currently there is no consistent method of testing for different levels of toxicity of any product so there is little to be gained from trying to measure different types of toxicity, beyond understanding that all combustion gives off harmful gasses. Hence:</p>	<p><b>See recent fire examples above.</b></p> <p><b>Recent FPA Research on cladding system toxicity.</b></p> <p><b>ASPFTGD19</b></p> <p>Comment from one members study on the viability of testing building products for toxicity concluded there was no evidence to support a case  Stats show that majority of domestic</p>		

			<p>1: The most important principle has to be to avoid exposure to smoke in the first place.  2: Consider a wider range of options to provide for smoke extraction.  3. There is no case to justify prescribing fire toxicity limits for materials which comprise the building fabric</p> <p>If BS 8414 is to end up as a full façade test, designers lack crucial information and test data to design a façade assembling multiple items from numerous different manufacturers. Furthermore, even A2+ external wall products/systems can behave very differently and need to be differentiated.</p> <p>Key areas lacking:</p> <ol style="list-style-type: none"> <li>a. We need a cladding system test evaluates <b>Flame spread rate, Debris and Toxicity</b> without interference from third party features such as windows. An associated classification standard could adopt a similar nomenclature to BS-EN 13501-1e.g. <b>F-A.3, Db-2, Tx-1</b>.</li> <li>b. British Standard tests are needed that evaluate key elements such as cavity barriers, penetration fire stopping etc. Large scale tests run the risk of not engaging such features in the fire giving a misleading conclusion. New tests that subject such products to repeatable and realistic conditions are needed.</li> <li>c. Window interface details require more understanding but are outside</li> </ol>	<p>and commercial fire begin with the contents of the building rather than the fabric  Comparative destructive fire testing carried out at EU level between identical plaster board walls backed with different insulation products produced no significant difference in the smoke produced.</p>		
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			<p>the expertise of the membership.</p> <p>Areas of concern in BS EN 13501-1 must be addressed, including well-known issues with evaluating composite materials and concerns that the spread of flame test (BS EN 13823) does not reflect external wall fire intensities. In this review, retaining the stronger elements of the national classifications should be considered and perhaps transferred to a modified version of 13501-1.</p> <p>The industry urgently needs clear guidance on reaction to fire classification routes and possibly some sensible prescription on commonly used materials to avoid wasteful and time consuming repetitive testing of well understood materials.</p>			
	Construction Technologies and Designs		<p>We are very concerned about the capacity for Class B membranes to present a significant fire danger, even in an external wall that is otherwise A2+.</p> <p>We propose:</p> <ol style="list-style-type: none"> <li>a. The urgent introduction of a heat of combustion limit per unit <i>area</i>, and other possible restrictions</li> <li>b. The exemption is removed within a reasonable timescale (2 years?) given the lack of products currently on the market.</li> </ol> <p>We have a similar concern about the fixings exemption. Where a system relies on combustible or low melting point fixings, tapes or adhesives, these could perform</p>	<p>NFPA 285 exception 1403.5.2 for membranes:</p> <ul style="list-style-type: none"> <li>• Peak Heat Release Rate of less than 150 kW/m<sup>2</sup></li> <li>• Total Heat Release of less than 20 MJ/m<sup>2</sup></li> <li>• Effective Heat of Combustion of less than 18 MJ/kg</li> <li>• a flame spread index of 25 or less and a smoke-developed index</li> </ul>		

			<p>badly in a fire even in an A2+ external wall. Polyurethane based products also have a high fuel load capacity, so as with membranes, they should form part of a maximum heat of combustion limit per unit area of external wall. Greater research and detailed guidance is required.</p> <p>Comment from one member: Hackitt 'golden thread' principles need to be embedded in the regulations. Use of digital building techniques and BIM should be encouraged and embedded throughout.</p>	<p>of 450 or less</p> <p>MCRMA Advice Note 3 recommends large scale testing where systems are not mechanically fixed together.</p> <p>Comment from one member: Use of industry-authored codes of practice and involvement of trade associations captures best-practice, future-proofs against changes and encourages the cultural shift necessary to engage the industry itself as an agent of change. Also provides an audit datum against which building control can check</p>		
	Construction details		N/A			

	Other issues – please specify theme		N/A			
Requirement B1: Means of warning and escape	Means of escape from blocks of flats		N/A			
	Means of escape for disabled people		N/A			
	Other issues – please specify theme		N/A			
Requirement B2: Internal fire spread (linings)	Other issues – please specify theme		N/A			

	Compartmentation		<p>We have compartmentation concerns that relate to internal and external fire spread. Issues relating to cavity barriers have already been mentioned. There are similar concerns with compartmentation within buildings and the roof zone, not just in the external wall cavity. It is recommended that further work looks at this with a view to either producing suitable robust guidance/details, or a set of tests that can be used to demonstrate appropriate performance requirements.</p>			
Requirement B3: Internal fire spread (structure)	Sprinklers and other Fire Suppression systems		<p>Sprinklers and evacuation strategies are beyond our expertise, however we would comment that:</p> <ol style="list-style-type: none"> <li>a. Cat a. could be a sensible alignment to the requirement of active fire protection systems.</li> <li>b. The Stay Put policy relies heavily on compartmentation effectiveness. We would therefore draw attention to the BRE conclusion that workmanship represents the greatest threat to the fire performance of external wall systems where combustible materials are used in combination with the widespread poor construction standards that been seen during cladding remedial works since Grenfell. We therefore see a specific danger in the use of combustible materials in external walls of a building with a stay-put strategy.</li> </ol> <p>Some members felt that while the full details behind a stay-put policy were outside their expertise, the following should be considered</p>			

			<p>When designing a Stay Put policy need to consider two scenarios: Internal spread of fire or Spread of fire via the external façade.</p> <p>BS8414 test provides a more effective assessment of how a fire might spread on the external façade from a flat below and could be used to determine whether a Stay Put policy relating to external façade fires is appropriate. We cannot comment on a Stay Put policy is beyond our expertise.</p> <p>Insurance industry guidance limits the compartment size to 7000m<sup>2</sup> where no automatic sprinkler system is installed and 14000m<sup>2</sup> where automatic sprinkler systems are installed. These requirements should be adopted as a minimum.</p>			
	Other issues – please specify theme		N/A			
Requirement B4: External fire spread	Space Separation		It was commented that this is a particularly difficult part of AD B to apply in many situations and requires simplification.			
	Other issues – please specify theme		With respect to MHCLG communications following Grenfell, the MCRMA does not consider the 'filler material' wording of 12.6 to apply to external cladding materials of an external wall as these do not perform an insulation function. The surface <i>and</i> reaction to fire properties of external cladding			

			<p>materials have always been determined by the requirements of Diagram 40 which would disappear in the event of a significant simplification as described above.</p> <p>Some members do not agree with the categorisation proposed above and would therefore not wish to see diagram 40 removed as of detriment to the entire cladding market. There is justification for a minimum standard to be introduced.</p>			
Requirement B5: Access and facilities for the fire service	Access and Facilities for the fire and rescue service		N/A			
	Basements		N/A			
	Other issues – please specify theme		N/A			