

From: [redacted]
Directorate for Local Government and Communities
Building Standards Division
4 November 2020

Minister for Local Government, Housing and Planning

BUILDING STANDARDS (FIRE SAFETY) REVIEW PANEL 2021 BAN OF METAL COMPOSITE MATERIAL CLADDING PANELS AND REVIEW OF BS 8414

Purpose

1. To seek Ministerial approval to convene a panel of experts to consider a ban on Metal Composite Material (MCM) cladding panels and consider the continued referencing of BS 8414 in guidance supporting building regulations in light of any new evidence.

Priority

2. Routine.

Background

3. The Minister announced at the Local Government and Communities Committee meeting on 4 September 2020 that a panel of fire experts would be convened to consider a ban on the highest risk cladding materials through building regulations. Such a ban would apply to new buildings and conversions. Unintended consequences will also be identified and considered.

4. In 2018, the Building Standards (Fire Safety) Review Panel recommended to Ministers that the building regulations relating to external fire spread (Standard 2.7) did not require to be amended, but it did recommend that the supporting guidance in the technical handbooks could be strengthened. The key changes in relation to cladding introduced on 1 October 2019 were as follows:

- Lowering the height at which combustible cladding can be used from 18 metres to 11 metres to align with fire-fighting from the ground;
- Tighter controls over the combustibility of cladding systems on hospitals, residential care buildings, entertainment and assembly buildings regardless of building height.

5. There continues to be significant media and political interest in the Scottish Government's position in resisting an outright ban on combustible materials in high rise buildings and using BS 8414 as an option to comply with the regulations. The review panel will consider evidence for and against BS 8414 including any new test evidence, modelling or real fire data.

Remit of the Review Panel

6. The remit of the review panel will be to consider:
 - In house research and data gathering from around the world on the adoption of an outright ban of combustible materials or use of intermediate or large scale fire testing to assess fire performance (including the use of BS 8414 in other countries);
 - Research MHCLG data gathered from screening tests (post Grenfell) based on BS EN ISO 1716 Heat of Combustion test and correlate with BS 8414 (and BR 135 test data to develop definition of Metal Composite Material (MCM) to be banned based on the potential maximum total heat release rate of a product when completely burning, regardless of end use;
 - Address competence to use BS 8414 and compliance with standards, linking to the compliance plan workstream of the Building Standards Futures Board.
 - Develop a definition of MCM to be banned and consider any unintended consequences of introducing such a ban;
 - Assess evidence emerging from Phase 2 of the Grenfell Inquiry, UK Government research and developments in Europe with regard to fire spread on external walls including façade fire testing;
 - Review mandatory standard 2.7 'Spread on external walls' and whether a limitation should be introduced to the standard based on the height and use of the building or reaction to fire performance criteria should be applied to low rise buildings to inhibit fire growth.
 - Agree a consultation package; and
 - Finalise any amendment to the building regulations and/or mandatory standards and/or guidance prior to Ministerial sign off and publication.
7. This review will inform whether or not any changes are required to building regulations, mandatory building standards and supporting guidance contained in the technical handbooks.

Review programme

8. The review programme is challenging on two fronts, as follows:
 - The review timetable will only allow consideration of mandatory standard 2.7 (Fire Spread on External Walls) and a ban on cladding that represents the greatest risk. Any recommendations from the review panel will be based on sound scientific evidence and research;
 - The UK Government are in the process of commissioning a 46 month research project to review the fire performance of facades including BS 8414 (and BR 135). Phase 2 of the Grenfell Inquiry will also consider the fire performance of facades and BS 8414 (and BR 135) due to report in the around 18 months. As a result of the UK Government work the review panel may not have all the necessary evidence within the review current review programme to make any definitive recommendations to Ministers on the continued citation of BS 8414 within the technical handbooks.
9. See **Annex A** for review programme.

Review Panel Membership

10. The review panel membership is included in **Annex B** and includes experts (including fire safety experts) who have detailed knowledge and experience in external wall cladding systems. Some members have still to be nominated by their organisations and an updated membership list will be provided to the Minister when final membership is known.

Recommendation

11. The Minister is invited to approve the following:

- expert panel membership;
- remit of the review panel; and
- the programme of work.

[redacted]

Directorate for Local Government and Communities

Mobile: [redacted]

4 November 2020

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Cabinet Secretary for Communities and Local Government			X		
Minister for Community Safety			X		

Paul Johnson, DG ECJ
 Stephen Gallagher, Director for Local Government and Communities Directorate
 Shirley Laing, Director for Housing and Social Justice
 Catriona MacKean, Deputy Director, Better Homes
 Wendy Wilkinson, Deputy Director, Safer Communities
 Brad Gilbert, Deputy Director, More Homes
 Stephen Garvin, Deputy Director, Building Standards Division
 [redacted], Building Standards Division
 [redacted], Building Standards Division
 [redacted] Building Standards Division
 [redacted], Building Standards Division
 [redacted], Building Standards Division
 [redacted], Building Standards Division
 [redacted], Legal Services
 [redacted], HM Fire Service Inspectorate
 Jeanette Campbell, SPADs
 Comms,

ANNEX A – PROGRAMME

The following table provides the programme for review.

Month	Milestone
2020	
November	Ministerial approval for expert panel membership, remit of review panel and programme of work
	Contact panel members and agree membership
	Literature review / commission research
26 November	Provide update to Ministerial working group
December	Hold first meeting of the review panel to confirm scope, remit, research and evidence
	Agree dates for further review panel meetings during 2021
	Draft minutes of first review panel meeting
2021	
January 2021	Inception meeting with research contractor
	Prepare papers for second review panel meeting
February 2021	Second review panel meeting (date tbc)
	Draft minutes of second review panel meeting
	Draft Policy Note - solicitors instructions
March	Prepare papers for third review panel meeting
	Final research report
April	Draft amended standard and guidance for technical handbooks
	Prepare draft consultation package
	Consult analytical services re proposed consultation questions
	Prepare partial BRIA
	Consider other impact assessments
May	Third review panel meeting (date tbc)
	Draft minutes of third review panel meeting
June	Launch three month public consultation through Citizen Space
	Targeted engagement with industry during consultation period
September	Consultation closes
October	Draft consultation analysis report complete (independent)
	Finalise standard and guidance in technical handbook
	Final Review Panel meeting
	Lay Scottish Statutory Instrument, Policy Note and Business Regulatory Impact Assessment
	Final consultation analysis report (independent)
	Fourth review panel meeting (date tbc)
	Draft minutes of fourth review panel meeting
November	Finalise standard and guidance
December	Building (Scotland) Amendment Regulations 2021 comes into force (date tbc)

ANNEX B – REVIEW PANEL MEMBERSHIP

It should be noted that the nominees have been requested but still to be confirmed (tbc) who have expert knowledge and experience in cladding systems with a particular focus on fire performance.

	Name	Organisation	Previous member of Building Standards Review Panel
1	Peter Drummond (Chair)	Royal Incorporation of Architects in Scotland	No
2	Professor Luke Bisby [1]	Edinburgh University	Yes
3	Debbie Smith OBE	Building Research Establishment	Yes
4	Colin Todd MBE	CS Todd and Associates	Yes
5	[redacted]	Chair of relevant BSI Committees	No
6	Dr Jim Glockling	Fire Protection Association	No
7	Alan McAulay	Local Authority Building Standards	Yes
8	Chris Getty	Scottish Fire and Rescue Service	No
9	tbc	Chartered Institute of Architectural Technologists	Yes
10	tbc	Construction Products Association	No
11	tbc	Homes for Scotland	Yes
12	tbc	Institution of Fire Engineers	No
13	tbc	Society of Façade Engineers	No
14	tbc	Royal Institution of Chartered Surveyors	No
15	Bill Connolly	Health Facilities Scotland	Yes
16	[redacted]	Ministry of Housing Communities and Local Government	Yes
17	[redacted]	Welsh Government	Yes
18	[redacted]	Northern Ireland Government	Yes

Notes

[1] Luke Bisby is giving evidence at Phase 2 of Grenfell Inquiry and may not be available due to a potential conflict

From: [redacted] (MPO) **On Behalf Of** Minister for Local Government, Housing and Planning

Sent: 05 November 2020 19:52

To: Garvin S (Stephen) (Dr) ; Minister for Local Government, Housing and Planning [redacted]

Cc: DG Education, Communities & Justice ; Gallagher S (Stephen) ; Director for Housing and Social Justice ; MacKean C (Catriona) ; Wilkinson W (Wendy) ; Gilbert B (Brad) [redacted] ; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; [redacted]; Campbell J (Jeanette) (Special Adviser)

Subject: RE: Submission: Fire Safety Review

Hi Stephen

Mr Stewart is content with the recommendation

Thanks

[redacted]

Assistant Private Secretary

Office of Minister for Local Government, Housing & Planning

The Scottish Government

St Andrews House, Regent Road, Edinburgh, EH1 3DG

Tel. [redacted]

From: Garvin S (Stephen) (Dr)
Sent: 14 November 2020 14:05
To: Minister for Local Government, Housing and Planning
<MinisterLGHP@gov.scot>; [redacted]<[redacted]@gov.scot>
Cc: DG Education, Communities & Justice <DGECJ@gov.scot>; Gallagher S (Stephen) <Stephen.Gallagher@gov.scot>; Director for Housing and Social Justice <DirectorHSJ@gov.scot>; MacKean C (Catriona) <Catriona.Mackean@gov.scot>; Wilkinson W (Wendy) <Wendy.Wilkinson@gov.scot>; Gilbert B (Brad) <Brad.Gilbert@gov.scot>; [redacted]< [redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted]<[redacted]@gov.scot>; [redacted]< [redacted]@gov.scot>; [redacted]< [redacted]@gov.scot>; [redacted]< [redacted]@gov.scot>; [redacted]< [redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; [redacted] <[redacted]@gov.scot>; Campbell J (Jeanette) (Special Adviser) <Jeanette.Campbell@gov.scot>
Subject: RE: Submission: Fire Safety Review

[redacted]

A draft letter to go out to the chair of the review panel. Let me know if Mr Stewart would prefer that it goes in his name and we will amend.

Regards

Stephen

Directorate for Local Government and Communities
Building Standards Division

T: [redacted]
E: stephen.garvin@gov.scot

Peter Drummond
[redacted]

19 November 2020

Dear Peter

Building Standards Fire Safety Review Panel 2021

On behalf of Kevin Stewart, the Minister for Local Government and Housing, I am pleased to invite you to chair the Building Standards Fire Safety Review Panel 2021.

The review panel's work will address a potential ban of the highest risk cladding panels and a review of the role of BS 8414 / BR135 within Section 2 of the Technical Handbooks. I would ask that the review panel looks at these issues in the round considering matters such as compliance and competence, and connecting with the Futures Board programme. The review is anticipated to be completed by the end of 2021.

Details of the scope of the review, remit of the working party, key tasks for the Chair and key milestones are set out in the Annex. At present it is expected that meetings will be undertaken virtually using MS Teams or similar. However, if face to face meetings are undertaken then reasonable travel expenses will be paid.

If you are content to take on this important role, please confirm your acceptance in writing.

If you have any queries on the operation of the review panel then please do not hesitate to contact me.

Yours sincerely

STEPHEN GARVIN
Head of Building Standards Division

REVIEW OF FIRE SAFETY BUILDING REGULATIONS

BUSINESS OBJECTIVE: Review of Building Standards to consider a ban on the highest risk cladding panels and consider the continued referencing of BS 8414 in guidance supporting building regulations in light of any new evidence.

BUILDING STANDARDS WORKING PARTY

Working Party – Scope

The Minister announced at the Local Government and Communities Committee meeting on 4 September 2020 that a panel of fire experts would be convened to consider a ban on the highest risk cladding materials through building regulations. Such a ban would apply to new buildings and conversions. Unintended consequences will also be identified and considered.

In 2018, the Building Standards (Fire Safety) Review Panel recommended to Ministers that the building regulations relating to external fire spread (Standard 2.7) did not require to be amended, but it did recommend that the supporting guidance in the technical handbooks could be strengthened. The key changes in relation to cladding introduced on 1 October 2019 were as follows:

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The review programme is challenging on two fronts:

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- The UK Government are in the process of commissioning a 46 month research project to review the fire performance of facades including BS 8414 (and BR 135). Phase 2 of the Grenfell Inquiry will also consider the fire performance of facades and BS 8414 (and BR 135) due to report in the around 18 months. As a result of the UK Government work the review panel may not have all the necessary evidence within the review current review programme to make any definitive recommendations to Ministers on the continued citation of BS 8414 within the technical handbooks.

Working Party – Remit

The remit of the review panel will be to consider:

- In house research and data gathering from around the world on the adoption of an outright ban of combustible materials or use of intermediate or large scale fire testing to assess fire performance (including the use of BS 8414 in other countries);
- Research MHCLG data gathered from screening tests (post Grenfell) based on BS EN ISO 1716 Heat of Combustion test and correlate with BS 8414 (and BR 135 test data to develop definition of Metal Composite Material (MCM) to be banned based on the potential maximum total heat release rate of a product when completely burning, regardless of end use;
- Address competence to use BS 8414 and compliance with standards, linking to the compliance plan workstream of the Building Standards Futures Board.
- Develop a definition of MCM to be banned and consider any unintended consequences of introducing such a ban;
- Assess evidence emerging from Phase 2 of the Grenfell Inquiry, UK Government research and developments in Europe with regard to fire spread on external walls including façade fire testing;
- Review mandatory standard 2.7 ‘Spread on external walls’ and whether a limitation should be introduced to the standard based on the height and use of the building or reaction to fire performance criteria should be applied to low rise buildings to inhibit fire growth.
- Agree a consultation package; and
- Finalise any amendment to the building regulations and/or mandatory standards and/or guidance prior to Ministerial sign off and publication.

7. This review will inform whether or not any changes are required to building regulations, mandatory building standards and supporting guidance contained in the technical handbooks.

Working Party – Chair – Key tasks

Key task 1 – Working Party

- To chair working parties (3 no. pre-consultation; 1 no. post-consultation)
- Advise on members for working party
- Assist in setting the scope, timescale and outputs of review
- Assist in identifying the needs of members, identifying supporting research and developing working party papers
- Provide quality assurance on working party documentation (mailings, papers, consultation)
- Assist in the analysis of consultation responses
- Assist in finalising any changes to legislation/standards or guidance and supporting assessments (BRIA, EQIA, CRWIA, SEA)
- Liaise as appropriate with –
 - work of other UK jurisdictions
 - other SG working parties on related work running in parallel

Key task 2 – Working Party Supporting Research

- Assist in developing questionnaire for international (IRCC) comparison of fire building standards, guidance and trigger points
- Assist in the analysis of responses to above

Key task 3 – Any other tasks as agreed with the Head of Building Standards

ANNEX

Working Party – Key milestones

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	Draft minutes of fourth review panel meeting
November	Finalise standard and guidance
December	Building (Scotland) Amendment Regulations 2021 comes into force (date tbc)

From: [redacted]

Sent: 13 July 2020 21:33

To: Minister for Local Government, Housing and Planning

<MinisterLGHP@gov.scot>

Cc: Cabinet Secretary for Communities and Local Government

<CabSecCLG@gov.scot>; Minister for Community Safety <MinisterCS@gov.scot>;

DG Education, Communities & Justice <DGECJ@gov.scot>; Director for Housing

and Social Justice <DirectorHSJ@gov.scot>; Gallagher S (Stephen)

<Stephen.Gallagher@gov.scot>; Campbell B (Brenda)

<Brenda.Campbell@gov.scot>; MacKean C (Catriona)

<Catriona.Mackean@gov.scot>; Wilkinson W (Wendy)

<Wendy.Wilkinson@gov.scot>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]<

[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; Gilbert B (Brad) <Brad.Gilbert@gov.scot>; [redacted]<

[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]<

[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted] (FRU)

<[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]<

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Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>;

[redacted]<[\[redacted\]t@gov.scot](mailto:[redacted]t@gov.scot)>; [redacted]< [\[redacted\]@scotland.gsi.gov.uk](mailto:[redacted]@scotland.gsi.gov.uk)>;

[redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]

<[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; [redacted]

[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; Campbell J (Jeanette) (Special Adviser)

<Jeanette.Campbell@gov.scot>; [redacted]< [\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>;

Communications CSSE <CommunicationsCSSE@gov.scot>; [redacted]

<[\[redacted\]](mailto:[redacted])>

Subject: Ministerial Submission - Ban on ACM and HPL - unintended consequences v4 Final

[redacted]

Apologies – please delete previous email – wrong email title.

One of the actions (Action Point 4) from the Building and Fire Safety Ministerial Working Group meeting on 11 June 2020 was for officials to provide advice on the unintended consequences of banning Aluminium Composite Material cladding panels with a unmodified polyethylene core, ACM(PE) and High Pressure Laminate Panels (HPL) on all new and existing buildings in Scotland and to provide an update on the review of the large scale façade test known as BS 8414.

The Minister is invited to note:

- That a product specific ban on ACM(PE) and HPL cladding panels is reserved to the UK Government;
- EU Exit negotiations are ongoing and any trade deal with the EU will not be known until later in the year;
- Banning materials through building regulations would not give any better outcome in terms of lives saved or injuries prevented from fire;
- Building Standards in Scotland were changed on 1 October 2019 and give a clear route to achieve compliance with building regulations through the use

of A1/A2 materials (effectively non-combustible materials) or the cladding system is tested in accordance with BS 8414;

- That any ban of combustible materials on existing high rise would be contrary to the risk based approach set out in fire safety legislation and the draft Scottish Advice Note on External Wall systems.

The Annexes to this submission provides the Minister with more detailed information:

- **Annex A** – key background information;
- **Annex B** - unintended consequences;
- **Annex C** - an overview of the BS 8414 review; and
- **Annex D** - conflicting views for and against BS 8414.

Happy to discuss.

[redacted]

[redacted]

Scottish Government - Building Standards Division

Denholm House

Almondvale Business Park

Livingston

EH54 6GA

From: [redacted]
Directorate for Local Government and Communities
Building Standards Division
14 July 2020

Minister for Local Government, Housing and Planning

BAN OF ACM (PE) AND HPL – UNINTENDED CONSEQUENCES AND BS 8414 REVIEW

Purpose

1. To provide the Minister with advice regarding the possibility of banning panels constructed from Aluminium Composite Material with an unmodified polyethylene core (ACM-PE) and High Pressure Laminate (HPL) panels on all buildings in Scotland including any unintended consequences and an update on the review of BS 8414.

Priority

2. Routine.

Background

3. At the Building and Fire Safety Ministerial Working Group meeting on 11 June 2020, Ministers requested advice from officials on the unintended consequences of banning ACM-PE and HPL cladding on all new and existing buildings in Scotland and to provide an update on the review of the large scale façade test known as BS 8414.

4. There continues to be significant media and political interest in the Scottish Government's position in resisting an outright ban on combustible materials in high rise residential buildings over 18m and supporting BS 8414 as an option to comply with the regulations.

Options

5. The following two options have been considered:

- Option 1 – A ban of ACM(PE) and HPL through the Construction Products Regulations 2013;
- Option 2 – A ban through the Building (Scotland) Regulations 2004 and the Fire Safety (Scotland) Regulations 2006.

Option 1: Ban through the Construction Products Regulations 2013.

6. Regulation of construction products is reserved to the UK Government. The Construction Products Regulations 2013 lays down harmonised rules for the marketing of construction products in the EU. The Regulation provides a common technical language to assess the performance of construction products. The UK left the European Union on 31 January 2020 and the stand-still transition period ends on 31 December. Prior to the coronavirus pandemic there was a stalemate on trade

negotiations and we understand that an extension to the transition period is unlikely despite the impact of the virus. A targeted regulatory ban of ACM(PE) and HPL is outwith the competence of the Scottish Parliament and until trade negotiations are complete, this option cannot be pursued at this time.

Option 2: Ban through the Building (Scotland) Regulations 2004 and Fire Safety (Scotland) Regulations 2006.

7. New Buildings – New regulations came into force in England on 21 December 2018 and in Wales on 13 January 2020. A similar building regulatory approach could be considered in Scotland and introduce a mandatory requirement for external walls of high rise residential buildings over 18m to be constructed only from materials that achieve a European Classification A1 (non-combustible) or A2 (limited combustibility). However, this approach was not supported by the Building Standards (Fire Safety) Review Panel of experts or the majority of respondents to the building standards consultation in 2018.

8. Existing Buildings – Should Ministers wish to impose a mandatory requirement for all external wall cladding systems on existing high rise residential buildings to be constructed only from materials that achieve a European Classification A1 (non-combustible) or A2 (limited combustibility), this would be contrary to the Draft Scottish Advice Note on External Wall Systems and undermine the risk based approach enshrined in the Fire (Scotland) Act 2005 and associated regulations.

9. Any ban on combustible cladding materials through amendments to building or fire safety legislation is likely to exacerbate the mortgage lending crisis and a full public consultation exercise would be required in order to avoid Judicial Review.

10. An overview of the BS 8414 review is provided at Annex A, Conflicting views for and against BS 8414 at Annex B, Relevant background information at Annex C and Unintended consequences at Annex D.

Recommendation

The Minister is invited to note:

- **Option 1** - That a product specific ban on ACM(PE) and HPL cladding panels is reserved to the UK Government and due to ongoing EU Exit negotiations, a construction product specific ban cannot be pursued with the UK Government at this time;
- **Option 2** - That a ban on combustible materials through building and fire safety regulations is not advised for the reasons set out below:
 - Building Standards in Scotland were changed on 1 October 2019 and give a clear route to achieve compliance with building regulations through the use of A1/A2 materials (effectively non-combustible materials) or the cladding system is tested in accordance with BS 8414. An update on the review of BS 8414 is set out at **Annex A** and Conflicting views for and against BS 8414 at **Annex B**;
 - That a ban of combustible materials on existing buildings would be contrary to the risk based approach set out in fire safety legislation and the draft Scottish Advice Note on External Wall Systems.
 - Banning materials through building or fire safety regulations would not give any better outcome in terms of lives saved or injuries prevented from fire;
- Relevant background information is provided at **Annex C** and Unintended Consequences to a targeted ban on ACM(PE) and HPL is set out at **Annex D**.

Next Steps

Officials will keep this important issue under review as evidence emerges from Phase 2 of the Grenfell Inquiry and EU Exit negotiations have concluded. These negotiations may include implications for the free movement of Construction Products between EU member states and the UK.

Very happy to discuss further if helpful.

[redacted]

Directorate for Local Government and Communities

Mobile: [redacted]

14 July 2020

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Cabinet Secretary for Communities and Local Government			X		
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Paul Johnson, DG ECJ
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 Brenda Campbell, Local Government Division
 Catriona MacKean, Better Homes
 Wendy Wilkinson, Deputy Director, Safer Communities
 [redacted], Better Homes
 [redacted], Better Homes
 Brad Gilbert, More Homes
 [redacted], More Homes
 [redacted], More Homes
 [redacted], Fire and Rescue Unit
 [redacted], Fire and Rescue Unit
 [redacted], Fire and Rescue Unit
 [redacted], Higher Education and Science
 [redacted], Higher Education and Science
 [redacted], School Infrastructure
 [redacted], Health, Capital Investment and NHS Facilities
 [redacted], Health, Capital Investment and NHS Facilities
 [redacted], Social Care Support
 [redacted], Social Care Support
 [redacted], Tourism and Major Events
 [redacted], Tourism and Major Events

Stephen Garvin, Deputy Director, Building Standards Division
[redacted], Legal Services
[redacted], HM Inspectorate of Prisons Division
[redacted], HM Fire Service Inspectorate
[redacted], EU Exit Strategy and Negotiations
Jeanette Campbell, SPADs
Comms CSSE

ANNEX A - REVIEW OF BS 8414

Background

1. BS 8414 was first developed from BRE Fire Note 9, 'Assessing the fire performance of external cladding systems' (BRE, 1999) which was first cited in the Scottish Technical Standards as an option for compliance with building regulations in 2002. BS 8414 provides a test method for determining the fire performance characteristics of non-loadbearing external cladding systems, rainscreen overcladding systems and external wall insulation systems when fixed to and supported by a masonry substrate or structural steel frame and exposed to an external fire under controlled conditions.

2. BS 8414 is published by BSI Standards Limited, under licence from The British Standards Institution (BSI) and is published in two parts:

- Part 1: *Test method for non-loadbearing external cladding systems fixed to, and supported by, a masonry substrate; and*
- Part 2: *Test method for non-loadbearing external cladding systems fixed to, and supported by, a structural steel frame.*

3. The revision was instigated by the British Standards Institution and the responsible technical committee (FSH/21/– Reaction to fire tests) representing the fire protection, manufacturing and the built environment industries. The revised standards came into effect on 30 April 2020 following a 19 month review and a 60-day public consultation. Over 200 pages of comments per standard were reviewed by the technical committee and amendments made to the standards where there was consensus to do so. Members of the committee include; Association of British Insurers, Association for Specialist Fire Protection, BRE - Global Limited, British Cables Association, British Plastics Federation, UK Phenolic Foam Association, Warrington Fire, Gypsum Products Development Association, Insulation Manufacturers Association, Mineralwool Insulation Manufacturers Association, National Fire Chiefs Council and the Ministry of Housing, Communities and Local Government.

4. Key changes were made to improve transparency around the specification of the system tested, installation details and the proposed end use in practice with particular focus on cavity barriers and fire breaks. This was a full revision of the standard, and introduced the following principal changes:

- clarification of the scope;
- amendments to Clause 6; and
- expansion and clarification of Clause 9 and Clause 10.

5. Amendment to Clause 6

Clause 6 has been expanded with 6.1 General now requiring that the test sponsor shall provide a test specimen which:

- Is representative of the intended end use design and consists of all relevant components (of the intended specification);
- References the associated component manufacturer's design specification and installation details; and

- Is assembled and installed in accordance with the test sponsor's instructions, as would be expected in practise;
- This clause also includes a note stating it is the responsibility of the test sponsor to inform the test laboratory of any variations to the manufacturer's design specification and installation details;
- Expanded clause 6.2 Dimensions of the test specimen with particular focus on the inclusion of cavity barriers/firebreaks.

6. Amendment to Clause 8

- Clause 8.4 Test observations has been amended to include the recording of mechanical damage and observed combustion.

7. Expansion of Clause 9 and 10

- Amendment to 9.0 Post-test examination to provide more detail on what visual inspection should be undertaken and records made;
- Clause 10 Test report has been significantly expanded with 8 additional requirements. These include but are not limited to:
 - The name and address of the testing laboratory and its accreditation and/or Notified Body;
 - the date and identification number of the test report;
 - The name and address of the sponsor
 - Details of all products and components used in the construction of the test specimen, together with identification marks and trade names;
 - The test report is also required to include the details of any variations to the manufacturer's design specification and installation details that have been notified to the test laboratory;
 - The construction details of the test specimen, including description, drawings and components;
 - The date of and method of assembly and installation of the test specimen together with a record of the relationship between the test sponsor and the installation team(s).

8. Section 1 Scope and Section 4 principles have been heavily clarified.

9. A number of the comments were either outside the scope of BS 8414 or require further research due to lack of scientific knowledge. Some of these comments will be taken forward by MHCLG as part of the review of Approved Document B (Fire Safety) in England, e.g. the associated performance criteria in BR 135 may be considered.

10. British Standards are reviewed every 5 years.

11. The European Commission have let a contract to develop a European Harmonised Standard for a large scale full exposure test (e.g. 'post flashover') and an intermediate scale fire tests for facades. We understand the large scale test full exposure test is based on BS 8414. The process to develop a Harmonised European Standard is likely to take at least 5 years but we should get cite of a draft standard before then.

ANNEX B - CONFLICTING VIEWS FOR AND AGAINST BS 8414

Introduction

1. All fire tests cited in building regulations are scenario tests used to assess materials, products, systems or components under laboratory conditions. Real fires are highly variable which cannot be replicated. The purpose of a fire test is therefore to determine the fire performance of a material, product or system to ensure repeatability and consistency of outcome. For example, measures for reaction to fire include ease of ignition, fire growth, flame temperatures, flame spread, sustained flaming, mass loss, calorific value and heat release rates depending on the fire test.
2. Testing provides information on system performance which can then be used by a competent designer in the specification and detailing of that cladding system on a proposed building.
3. BS 8414 is one of the most robust fire tests in the world. The fire exposure is representative of an external fire source or a fully developed (post-flashover) fire in a room venting through an opening such as a window. The fuel load for the test has been validated by real fire tests at Dalmarnock in Glasgow conducted by the Building Research Establishment Centre for Fire Engineering at Edinburgh University.

Views against BS 8414

4. The Association of British Insurers and the Fire Protection Association have criticised the Scottish Governments position in resisting a mandatory ban on combustible materials and retaining BS 8414 as an option in guidance to satisfy building regulations.
5. Dr Jim Glockling gave evidence in November 2019 and June 2020 and is a key technical advisor to the Association of British Insurers (ABI). Dr Glockling is Director of the RISC Authority and Technical Director of the Fire Protection Association (FPA). The RISC Authority is funded by a significant group of UK insurers that conducts research in support of the development and dissemination of best practice on the protection of property and business. One of their key aims is to ensure business resilience beyond the life safety objectives in building regulations and wherever possible to anticipate future events that may detrimentally impact upon the UK insurance industry. They provide insurers with industry guidelines on managing the risks that underpin current insurer business and property protection practice and act as a focal point for industry. One of their key activities is to lobby Government to raise standards in property protection and encourage commonality throughout the UK where government policy meets insurer objectives. The FPA is the UK's national fire safety organisation. They work to identify and draw attention to the dangers of fire and the means by which the potential for loss is kept to a minimum. They are an independent not for profit organisation who actively lobby Government in the pursuit of quality protection of people, property, business and the environment. It is important to recognise that building regulations related to fire are primarily concerned with life safety and not property protection.
6. Therefore, the RISC Authority and the Fire Protection Association have particular emphasis on risk avoidance, reduction and management and work

extensively with the Association of British Insurers (ABI). They will actively work with the ABI to lobby Government and MSPs in order to influence Government policy. The RISCAuthority have carried out research for the ABI which fed into the evidence considered by the BSI Committee responsible for BS 8414. There is no strong evidence to suggest that BS 8414 is not fit for purpose and a the recent review by the British Standards Institution has strengthened the standard.

7. At the Local Government and Communities Committee on 20 November 2019 Laura Hughes (Association of British Insurers) indicated that in relation to BS 8414 *“the test is not currently appropriate for the real-world conditions in which cladding is put on buildings”*. This view was echoed by both Craig Ross (Royal Institution of Chartered Surveyors) and Dr Jim Glockling (Fire Protection Association) with Dr Glockling stating; *“The key point is that BS 8414 is not a bad test, but it is not developed enough to ensure that real life can be replicated.”*

8. The Mineral Wool Insulation Manufacturers Association (MIMA) has indicated that it would like to see; *“a ban on combustible materials on the outside of high – rise or high – risk buildings”*. Mineral wool or stone wool products are predominantly non-combustible and achieve a European A1 or A2 classification. However any such ban was described by Professor Torero as *“unrealistic”* in his comments to the committee.

Views for BS 8414

9. The Building Standards Review of Fire Safety was led by Dr Paul Stollard and included national and international experts in fire testing, academia, construction industry sectors, fire engineering, architecture, Scottish Fire and Rescue Services and Local Authority Building Standards. The review was informed by research on the ‘Regulatory Appropriateness of Currently Cited Reaction to Fire Tests in Technical Handbook, Section 2 : Fire Standards 2.4 – 2.7’ by Meacham Associates. The research concluded that testing to BS 8414 is an acceptable standard to determine the potential spread of fire on external wall façades.

10. Following the Compliance and Fire Safety consultation exercise in the summer 2018, just under half of the responses supported retaining the BS 8414 test methodology stating the standard is well-respected in the industry. This included support from the National Fire Chiefs Council, Local Authority Building Standards Scotland, Scottish Fire and Rescue Service, Homes for Scotland, Royal Incorporation of Architects in Scotland and the Scottish Property Federation.

11. Only one-fifth of responses to the consultation supported removal of the BS 8414 test with one-third of responders who were ‘unsure’ citing a lack of knowledge or experience in this area.

12. Review panel members concluded that the BS 8414 test methodology was robust and should be retained as an option to satisfy building regulations. Anecdotal evidence suggests that using only products that meet European fire classification A1 or A2 (effectively non-combustible or will not contribute to the spread of a fire) remains the more popular route to compliance. When comparing the 40 kW/m² maximum heat flux of the American NFPA 285 fire test standard used for external wall cladding systems in the USA and other countries around the world, the BS 8414

test is more robust providing a maximum heat flux exposure to the cladding system in the order of 50 kW/m².

13. The BS 8414 fire test is used in other countries around the world. The European Commission are currently adopting BS 8414 as the basis of their large scale fire exposure condition in the development of a European Harmonised fire test standard.

14. (University College, London) at the Local Government and Communities Committee session on the 20 November 2019 said that “Fire safety is an incredibly complex process” and while cladding is clearly important, there is more to fire risk of a building than that one element. He also said that a ban on the use of combustible materials on a building would be “*unrealistic*”. “*There is no perfect test. BS 8414 can be used appropriately or inappropriately—it depends on the user more than on the test itself.*” Professor Jose Torero also indicated at the session that the issue did not necessarily lie with the BS 8414 test but with the competency of those undertaking an evaluation of the results from the test stating “*There is no perfect test. BS 8414 can be used appropriately or inappropriately—it depends on the user more than on the test itself.*” Going on later to say “*It is not about the details of why the test is not realistic; it is about who interprets the test and how it is applied to the construction site*”.

15. The Minister faced questions on this at the Local Government and Communities Committee on 20 January 2020 and subsequently wrote to the Committee to provide a detailed response to their questions.

16. A recent report; ‘*BS 8414 Review*’ from Tenos International Fire Engineering Consultants explains why BS 8414 is an internationally recognised test for measuring fire spread and importantly shows it has a higher fire load than similar international large-scale cladding tests such as NFPA 285.

17. The Insulation Manufacturers Association Limited recently wrote to officials indicating; “*we believe that BS 8414 provides the best way of testing cladding systems to ensure they achieve the outcome of controlling fire spread.*”

18. The Modern Building Alliance stated that they are; “*not aware of a building anywhere in the world where there has been a very significant cladding fire with extremely rapid fire spread with a system that passed, or would pass, a BS 8414 test.*”

19. The European Phenolic Foam Association also stated; “*it is our strong opinion that the best and most appropriate route for demonstrating the holistic fire safety of high building facades is for **all** systems and relevant products to be subjected, assessed and classified through the use of the large scale BS 8414 test, which was developed specifically for this purpose.*”

20. The retention of BS 8414 and the package of measures introduced in Scotland last October has been supported by the National Fire Chiefs Council and formed the basis of their response to the UK Government’s consultation ‘[Sprinklers and other fire safety measures in high-rise blocks of flats](#)’ (September, 2019). The consultation period was extended and closed on 26 May 2020.

ANNEX C – BACKGROUND INFORMATION

Fire testing

1. It is important to recognise that ACM(PE) with PIR insulation and with stonewool both failed the UK Government sponsored fire tests post-Grenfell to BS 8414 and HPL Class B with A2 stonewool passed the test.
2. On 2 April 2020, the UK Government published the test and analysis report [‘Fire performance of cladding materials research’](#). The aim was to identify if there were other types of cladding that burn like the type of metal composite material which was present on the Grenfell Tower i.e. aluminium composite material (ACM) with an unmodified polyethylene core, ACM (PE), or ‘ACM category 3’.
3. The tests were undertaken by the Building Research Establishment (BRE), on advice from the Independent Expert Advisory Panel, set up in the aftermath of the Grenfell Tower fire. The research showed that none of the materials tested (including HPL), performed in the same or even similarly to the type of cladding believed to be on Grenfell tower, ACM PE. Therefore, it would be wrong to assume that both materials behave the same way when subjected to an external façade fire.
4. However, the test programme showed unexpected results with the different grades of HPL and as a result the UK Government have commissioned further research to explore a consistent methodology to screen and categorise HPL that could be used to inform fire risk assessments. Findings from the project are expected in two months and officials will keep the Minister informed of progress and provide further advice when more detail becomes available.

Local Government and Communities Committee

5. The Local Government and Communities Committee has taken evidence on combustible cladding and BS 8414 in November 2019, January 2020 and more recently June 2020. Whilst it is clear that there are differing opinions about a ban on combustible cladding in Scotland and the continued use of BS 8414. Whilst we respect differences of opinion, it is important to understand the background to the individuals or groups giving evidence. It is equally important to understand that the fire safety aspects of building regulations are primarily concerned with life safety and not property protection. A summary of individuals/association conflicting opinions is provided at **Annex D**.

UK Government Expert Panel’s position

6. In Committee evidence in England, Sir Ken Knight, chair of the UK Government Independent Expert Panel on Building and Fire Safety was not supportive of a ban on combustible cladding. His preference would be to use the performance based approach using test results from BS 8414 to inform the fire risk assessment. Indeed, this is the key source of evidence cited in the Expert Panels Consolidated Advice Note for building owners. In Scotland, a similar approach is proposed through the Draft Scottish Advice Note on External Wall Systems which cites test results from BS 8414 to assist building owners or their professional advisors to determine the fire risk posed by external wall cladding systems.

Grenfell Inquiry

7. Phase 2 of the Grenfell Inquiry has recommenced and will consider evidence on the design and construction of Grenfell Tower, including refurbishment of the tower and compliance with building regulations. Particular focus will be on combustible cladding, fire testing to BS 8414 and desktop studies. Whilst phase 2 is expected to last for 18 months, officials will keep the Minister advised as key evidence emerges.

Fire Statistics

8. Fire statistics help to provide context in terms of life safety. The vast majority of fire related deaths occur in dwellings due to smoke inhalation from an accidental fire inside the building and does not normally involve the external cladding.

9. Fire related deaths and injuries in Scotland have declined significantly in the last 20 years. In 2001 there were more than 8000 accidental dwelling fires per year in Scotland resulting in 88 fatalities and more than 2000 injuries. Since then, there has been a downward trend on accidental dwelling fires to approximately 5000 resulting in 40 fatalities and 900 injuries. Less than 1% of accidental dwelling fires in multi-storey residential buildings spread beyond the floor of fire origin.

10. There have been no fire related deaths beyond the dwelling of fire origin since statistics were transferred to the Scottish Fire and Rescue Service in 2009 from the Home Office.

England and Wales – building regulations

11. England amended their building regulations in December 2018 to effectively 'ban' combustible materials used in the external wall construction of new high-rise residential buildings with a floor over 18m. The so-called 'ban' is wider than just external wall cladding systems and includes the structural frame and all thermal insulation material used in the external wall construction. There are exceptions to the ban including windows, gaskets, seals, fire barriers and membranes. The Welsh Government have followed a similar approach.

12. It is important to recognise that England does not actually ban the use of combustible materials therefore the use of the word 'ban' is misleading. For example, England cite Euro Class A1 and A2 in their building regulations. Euro class A1 means non-combustible and Euro class A2 consists of materials that have a limited amount of combustibility. English building regulations also cite BS 8414 as an acceptable fire test for all other non-domestic high rise buildings e.g. hotels, offices, shops and commercial premises. Therefore, it would be incorrect to say that England bans the use of combustible materials on their high rise buildings.

13. England are currently considering extending the 'ban' by reducing the height at which only A1 and A2 materials can be used in new build residential buildings from 18m to 11m. According to UK Government officials there has been significant resistance to this proposal from industry including the timber frame, cross laminated timber, structural insulated panel and insulation manufacturers. The Ministry of Housing Communities and Local Government (MHCLG) are currently considering

responses to the consultation which closed on 26 May 2020. Scottish Government officials continue to work closely with MHCLG and a further update will be provided to Ministers once the direction of travel is known.

Scotland – building regulations

14. The remit of the Building Standards (Fire Safety) Review Panel in 2017/18 was targeted specifically at high rise issues and in particular the outer cladding material, the combustibility of the materials exposed in the cavity, escape and automatic fire suppression systems. The combustibility of materials that make up the structural elements are enshrined in structural Eurocodes and were out with the remit of the Review Panel.

15. Scotland introduced new requirements in October 2019. All new domestic and non-domestic buildings over 11m require A1 or A2 cladding systems to be used or the system is tested to BS 8414. The Scottish expert panel supported this balanced approach to satisfy the mandatory standards to inhibit fire spread on external walls and inhibit spread in cavities. This approach allows for innovation of fire safe cladding systems and supports the Climate Change Emergency. The requirement for A1/A2 materials or BS 8414 test evidence was also extended to hospitals, residential care buildings, assembly and entertainment building regardless of height. Two escape stairs, an evacuation alert system and floor signage were also introduced to assist the fire and rescue service in the unlikely event of a partial or mass evacuation of a high rise domestic building over 18m. Therefore, it could be argued that Scotland has set a higher standard than England with the fire performance of external cladding systems and other fire safety measures in high rise domestic buildings.

16. The Scottish Government will also introduce a mandatory requirement to install automatic fire suppression systems in all new build flats, certain new build multi-occupancy dwellings and new build social housing from March 2021.

ANNEX D - UNINTENDED CONSEQUENCES – BAN OF ACM (PE) AND HPL PANELS ON ALL SCOTTISH BUILDINGS

Ref	Unintended Consequence	New Buildings	Existing Buildings
1	<p>Product specific ban could lead to Judicial Review and legal challenge from industry for two key reasons:</p> <ul style="list-style-type: none"> the SG acting out with legal powers and authority of the Scottish Parliament; the HPL industry would claim to be treated unfairly as other manufacturers of cladding panels with the same reaction to fire performance have not been singled out in the targeted ban. 	Reserved to Westminster, legal challenge and Judicial Review	Reserved to Westminster, legal challenge and Judicial Review
2	<p>A product specific ban of ACM (PE) and HPL would not deal with all combustible cladding products with similar burning characteristics e.g. Zinc Composite Material (ZCM) and Copper Composite Material (CCM). Many other products that will have similar burning characteristic as HPL as shown in the UK Government ‘Fire performance of cladding materials research’.</p>	New innovative cladding products may be introduced to market with similar burning characteristics	New innovative cladding products may be introduced to market with similar burning characteristics
3	<p>Ban through building regulations would need to be implemented through reaction to fire classification system and mandatory building standards i.e. Euro Class A1 or A2 only with some minor exceptions. BS 8414 fire test would not be possible and would stifle innovation. Note that A2 is combustible but does not contribute significantly to fire growth.</p>	5-6 high rise domestic buildings built every year in Scotland since the 1960-70’s.	Does not solve problem with existing buildings. BS 8414 is not used significantly for new buildings. Overcladding is more likely to be based on BS 8414.
4	Likely to exacerbate mortgage lending crisis particularly all low rise residential buildings, high rise buildings clad with HPL and partial clad ACM(PE) or partial clad HPL buildings.	Not applicable	Likely to impact many thousands of residential buildings and calls on Government to provide funding.
5	Would undermine Scottish Advice Note on External Wall Systems which supports the risk based approach and use of BS 8414.	Not applicable	Likely to impact many thousands of residential buildings and calls on Government to provide funding.
6	A ban on all buildings in Scotland may lead to legal action being taken against the Scottish Government as many buildings would have complied with building regulations which is a defence in court tending to negative liability.	Would apply to all buildings where a building warrant was applied for before the new legislation comes into force	Likely to impact many tens of thousands of domestic and non-domestic buildings and calls on Government to provide funding – may run to Billions
Ref	Unintended Consequence	New Buildings	Existing Buildings

7	<p>Market forces of ban in England already leading to manufacturers changing their powder coating specification on metal cladding panels – evidence suggests specification changes to A1 leads to aesthetic issues such as discolouration of panels and durability issues.</p> <p>Panels will need to be re-painted or replaced within a few years leading to construction disputes etc. May lead to reduction in value of property and expensive retro-powder coating finish at cost to building owners. Over-painting of panels will reduce the reaction to fire performance of panels and hence increasing likelihood of vertical flame spread.</p>	<p>Potential failure to comply with Regulation 8 of the Building (Scotland) Regulations 2004 with regards to durability and accessibility to carry out maintenance.</p>	<p>Cladding on existing buildings may require to be re-painted or replaced earlier than expected leading to additional costs to owners and contractual disputes.</p>
8	<p>A ban on all buildings would be expensive with no benefit in the number of lives saved and injuries prevented following the outbreak of fire. Almost all fire fatalities are a result of smoke inhalation from a fire inside the building, not on cladding. The cost benefit analysis will not support the ban and open Ministers to criticism.</p>	<p>Business regulatory impact assessment for new buildings will not support the policy.</p>	<p>The Business Regulatory Assessment required for all existing buildings likely to run to £ Billions with no benefits accrued from the reduction in fire deaths and injuries annually in Scotland.</p>
9	<p>A ban effectively undermines the risk based approach which applies to all existing buildings (other than private dwellings) and is enshrined in the Fire (Scotland) Act 2005 and associated regulations.</p>	<p>Not applicable</p>	<p>A ban would undermine the fire safety regime and risk based approach applicable to existing premises (relevant premises) as defined in the Fire (Scotland) Act 2005.</p>
10	<p>The exemptions to A1 and A2 listed in the English Building Regulations had unintended consequences as not every conceivable scenario was listed in the regulation. For example combustible flue liners, cavity trays, canopies and awnings were all made 'illegal'. In the case of canopies and awnings, following a Judicial Review the legislation was found to be unlawful and had to be changed.</p>	<p>The full public consultation carried out in England prior to the ban did not prevent the Judicial Review being upheld.</p>	<p>Requiring cladding on existing buildings to have A1 and A2 cladding is not practicable and likely to lead to legal challenge.</p>
11	<p>Scottish Ministers have continued to support the position of the Building Standards Review Panel of experts and more recently the panel of experts advising Ministers on the Scottish Advice Note.</p> <p>Failure to follow expert advice and is likely to lead to significant criticism and may result in national and international experts no longer assisting and engaging fully with the Scottish Government. Ministers would be required to explain why we no longer consider BS 8414 as a robust world leading fire test.</p>	<p>Criticism and reputational damage for change in direction.</p>	<p>Criticism and reputational damage for change in direction.</p>

Ref	Unintended Consequence	New Buildings	Existing Buildings
12	<p>The SG position on BS 8414 was respected in Europe as part of Fire Safety Week in Brussels in November 2019. Follow up webinar In April 2020 with more than 200 attendees including many regulators from EU member states who are considering following the Scottish example. The European Commission are also developing a harmonised European fire test for facades and considering using BS 8414 as the large fire exposure test condition.</p>	<p>Criticism and reputational damage for change in direction.</p>	<p>Criticism and reputational damage for change in direction.</p>
13	<p>Scottish Expert panels continue to support BS 8414 and forms the basis of the latest Scottish Advice Note which closely mirrors the Expert Panel's Consolidated Advice Note in England. Vitracore G2 panels are Euro Class A2 and one test on these panels in combination with A2 stonewool insulation failed the BS 8414 test.</p> <p>This demonstrates that even A2 products can fail the BS 8414 test and shows that slight variations in the product, component or the system can fail the BS 8414 test. It is also important to ensure that the same product tested is placed on the market. This raises questions about product certification and quality control issues including UKAS Accreditation of construction product manufacturing processes. In addition, a number of questions have been raised about market surveillance between products tested to a test standard and what is delivered and constructed on site.</p> <p>Composite fire doors is another example where systemic fire door failures meant the products were removed from the market until proper testing and procedures were put in place. Policy on construction product testing, placing products on the market and market surveillance is reserved to the UK Government.</p> <p>A ban would not resolve the issue over quality control over A1 and A2 products tested and those placed on the market.</p>	<p>New build - Construction product testing, placing products on the market and market surveillance is reserved to the UK Government.</p>	<p>If no confidence placed in product testing or what was designed is actually built. Post occupation Intrusive inspections is likely to become more common leading to uncovering potential non-compliance with building regulations and undermining the robustness of the building standard system and quality assurance on construction sites.</p>

From: Gilbert B (Brad) <Brad.Gilbert@gov.scot>
Sent: 09 July 2020 22:47
To: Minister for Local Government, Housing and Planning
<MinisterLGHP@gov.scot>
Cc: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>; Gallagher S (Stephen)
<Stephen.Gallagher@gov.scot>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>;
[redacted]<[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>; Cabinet Secretary for Communities and Local
Government <CabSecCLG@gov.scot>; Director for Housing and Social Justice
<DirectorHSJ@gov.scot>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>

Subject: FW: Submission – [redacted] 10(4)(e) of the EIRs (internal communications)

[redacted] 10(4)(e) of the EIRs (internal communications)

Brad Gilbert
Deputy Director (Interim) More Homes
Scottish Government
Mob: [redacted]
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e: brad.gilbert@gov.scot
I am currently home working. E-mail and mobile number are the ways to contact me.

From: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>
Sent: 09 July 2020 20:56
To: Minister for Local Government, Housing and Planning
<MinisterLGHP@gov.scot>
Cc: Gallagher S (Stephen) <Stephen.Gallagher@gov.scot>; Gilbert B (Brad)
<Brad.Gilbert@gov.scot>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>;
[redacted]<[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>

Subject: RE: [redacted] 10(4)(e) of the EIRs (internal communications)

[redacted] 10(4)(e) of the EIRs (internal communications)
required.
Regards
Stephen

From: [redacted]([redacted]) <[redacted]@gov.scot> **On Behalf Of** Minister for Local Government, Housing and Planning

Sent: 09 July 2020 10:01

To: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>; Minister for Local Government, Housing and Planning <MinisterLGHP@gov.scot>

Subject: RE: [redacted] 10(4)(e) of the EIRs (internal communications)

Stephen

[redacted] 10(4)(e) of the EIRs (internal communications)

[redacted]

Private Secretary to Kevin Stewart, Minister for Local Government, Housing and Planning

[redacted]

Please see the **Ministerial preferences** which may be of assistance to you.

From: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>

Sent: 07 July 2020 10:27

To: Minister for Local Government, Housing and Planning <MinisterLGHP@gov.scot>

Subject: RE: [redacted] 10(4)(e) of the EIRs (internal communications)

[redacted]

[redacted] 10(4)(e) of the EIRs (internal communications)

Stephen

From: [redacted](MPO) <[redacted]@gov.scot> **On Behalf Of** Minister for Local Government, Housing and Planning

Sent: 06 July 2020 22:24

To: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>; Cabinet Secretary for Communities and Local Government <CabSecCLG@gov.scot>; Minister for Local Government, Housing and Planning <MinisterLGHP@gov.scot>

Cc: DG Education, Communities & Justice <DGECJ@gov.scot>; Gallagher S (Stephen) <Stephen.Gallagher@gov.scot>; [redacted] <[\[redacted\]@gov.scot](mailto:[redacted]@gov.scot)>;

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[redacted]<[redacted]@gov.scot>; [redacted]<[redacted]@gov.scot>; [redacted}<[redacted]@gov.scot>; Campbell J (Jeanette) (Special Adviser)
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Subject: RE: [redacted] 10(4)(e) of the EIRs (internal communications)

Stephen
[redacted] 10(4)(e) of the EIRs (internal communications)
Thanks

[redacted]
Assistant Private Secretary
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From: [redacted] [redacted]@gov.scot>
Sent: 22 January 2021 16:25
To: [redacted]< [redacted]@gov.scot>;[redacted] < [redacted]@gov.scot>
Cc: Garvin S (Stephen) (Dr) <Stephen.Garvin@gov.scot>; Gilbert B (Brad)
<Brad.Gilbert@gov.scot>; [redacted]) <[redacted]@gov.scot>;
[redacted]<[redacted]@gov.scot>; Campbell J (Jeanette) (Special Adviser)
<Jeanette.Campbell@gov.scot>
Subject: [redacted] 10(4)(e) of the EIRs (internal communications)

[redacted] 10(4)(e) of the EIRs (internal communications)

[redacted]
Head of Mortgages and Cladding Unit, More Homes Division
Scottish Government

[redacted]
Call me via skype (internal) or [redacted]

Local Government and Communities Committee (LGCC) – Building Regulations and Fire Safety in Scotland Evidence Session

<p><i>Date and Time of Committee Appearance</i></p>	<p>Friday, 04 September 2020, at 10 am</p>
<p><i>Where</i></p>	<p>Virtual Meeting</p>
<p><i>Purpose of Evidence session</i></p>	<p>The Minister has been invited to the local Government and Communities Committee (LGCC) for an evidence session.</p> <p>The Committee held an evidence session on this issue with representatives of the fire protection and rescue sector and housing sectors on 19 June. The Committee agreed to continue to monitor policy and practice on building standards and fire safety, with a particular focus on "zero valued" apartment homes, and to hold an evidence session the matter with the Government following the recess.</p>
<p><i>Official Support Required</i></p>	<p>Stephen Garvin Head of Building Standards Division [redacted]</p> <p>[redacted] More Homes [redacted]</p>
<p><i>Comms Support/Media handling</i></p>	<p>Building Standards Division will liaise with Comms colleagues to prepare lines for any press interest on key hot topics that could gain press interest.</p> <p>No proactive comms action proposed.</p>

Cladding Remediation Fund

Top Lines:

- I am **sympathetic to the calls for Government funding and am open to this**, however I would expect that there will be a **coalition of interests who would pay** depending on the particular circumstances, for example some developers are already taking remedial action.
- We can **see from the experience of funding in England** that this will not be straightforward and there are clear differences in what may be appropriate: Scotland's differing building stock and regulations; the expectation in England around repayment by building owners; the time taken for funding to be spent; how far funding will stretch and the impact of that on other housing investment (it has been said not to 'touch the sides' in England) and that it is fair (some have challenged the England fund through judicial review).
- However **there is more work to be done on being clear on the scale of the current problem and the solutions before any funding decisions can be taken** [redacted] 10(4)(e) of the EIRs (internal communications).

Background

[redacted] 10(4)(e) of the EIRs (internal communications). In its Budget Statement of 11 March 2020, the UK Government announced a further fund of £1 billion, to help the removal and replacement of unsafe, non-ACM-PE cladding systems on buildings over 18 metres in social and private residential sectors in England which do not comply with building regulations. This is in addition to £600 million previously made available for ACM-PE clad buildings in social and private housing.

[redacted] 10(4)(e) of the EIRs (internal communications). There is a large volume of correspondence with regards to cladding, principally due to mortgage issues. Many correspondents are aware of the remediation funds in England and are seeking answers on eligibility in Scotland.

[redacted] 10(4)(e) of the EIRs (internal communications).

UK Parliament Select Committee Report on the UK Government's £1 billion fund

On 12 June, the UK Parliament published a Select Committee report on the £1 billion fund. It concludes that the UK Government will fall far short of what is needed to carry out remedial work on all buildings that currently have dangerous cladding and other fire safety issues.

The reports includes:

- The £1 billion fund is likely to only be sufficient to cover the cost of removal from around one third of the 1,700 buildings needing remediation.
- The taxpayer should not be expected to cover all costs of the this crisis and while the Government should provide funding upfront so that work can begin quickly,

they should seek to recover costs on individual buildings from those responsible and be prepared to take legal action.

- The Committee also said that the Government should take a hardline with freeholders who fail to deal with dangerous cladding on buildings they oversee.

Page 26 – 88 [redacted – out of scope]

Why does the Scottish Advice Note recognise the BS 8414/BR135 compliance option and not advocate a ban on all combustible cladding?

- All cladding systems should be considered by the fire safety risk assessment.
- The advice is clear that any systems which pose a significant risk to life are unacceptable and will require rapid remediation, with interim measures being applied in the short term.
- BS 8414 is considered to be one of the most robust fire tests in the world, and provides a higher heat output than the large façade test used in the USA
- The type of cladding used on Grenfell Tower failed the test at around 8 and a half minutes into the 60 minute BS 8414 test.
- BS 8414 (and BR135) is a recognised route to compliance under existing Building Regulation guidance and has been in place for over 15 years.
- I have read the transcript of the Local Government and Communities evidence session on 20 November 2019 and it is clear to me that there remains a range of views on the topic and I fully understand the concerns raised.
- I also note the statements from Professor Torero that an outright ban on combustible material is too simplistic a solution to a complex fire safety issue, that there is more to fire safety than just cladding alone, that there was nothing wrong with the BS 8414 test but the issue was the competence of those designing, installing and verifying the cladding system as tested.
- The European Commission intend to use BS 8414 as the basis of the large scale exposure condition in a new harmonised European fire test for facades that is currently under development [likely to be years away].

[redacted] 10(4)(e) of the EIRs (internal communications

Pages 89 – 107 [redacted – out of scope]

BS8414 – Large Scale Fire Test for Cladding Systems, Euroclasses A1/A2

Why does Scotland continue to cite BS 8414 that allows combustible cladding on buildings?

- We are following the recommendations of our panel of national and international fire experts on this matter.
- The Building Standards (Fire Safety) Review Panel did not support an outright ban preferring the performance based approach to demonstrate compliance with the building regulations
- This view was supported by the National Fire Chiefs Council, Local Authority Building Standards Scotland, Scottish Fire and Rescue Service, Homes for Scotland, Royal Incorporation of Architects in Scotland and the Scottish Property Federation
- BS 8414 is considered to be one of the most robust fire tests in the world, and provides a higher heat output than the large façade test used in the USA
- the type of cladding used on Grenfell Tower failed the test at around 8 and a half minutes into the 60 minute BS 8414 test.
- BS 8414 (and BR135) is a recognised route to compliance under existing Building Regulation guidance and has been in place for over 15 years.
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- The European Commission intend to use BS 8414 as the basis of the large scale exposure condition in a new harmonised European fire test for facades that is currently under development [likely to be years away].

Following the evidence given by Professor Jose Torero at the Local Government and Communities Committee on 20 November, what is the Scottish Government doing about competence of all those involved in the design and construction process?

- The issue of skills and competence of all those working in building standards and construction is an important one.
- Skills and competence were considered by the Scottish Government's independent review panel on compliance and enforcement in building standards.
- Following a public consultation in 2018, we are now implementing recommendations of the panel through the Building Standards Futures Board.
- A Workforce Strategy is currently being developed by Scottish Government that will look to build resilience for the building standards service, raise the profile of profession and improve opportunities around education and skills.

- We are also building on previous work on construction compliance to extend mechanisms within the building standards system to reinforce roles and responsibilities and the need for competence of both designers and installers.
- We welcome recent measures taken by the construction industry to improve competence of designers and contractors.
- The draft Building Safety Bill currently being considered at Westminster contains important changes to architect's registration, which will make the system more robust. The UK Government needs to work with the Royal Incorporation of Architects in Scotland so that the full benefits are seen here.

After the criticisms of BS 8414, has the revised version of BS 8414 been published by the British Standards Institution?

- The revised standards came into effect on 30 April 2020 following a 19 month review and a 60-day public consultation.
- The responsible technical committee is both expert and independent of government considered over 200 pages of comments and made amendments to the standards where there was consensus to do so.

Who are the BS 8414 Committee members?

Members of the committee include; Association of British Insurers, Association for Specialist Fire Protection, BRE - Global Limited, British Cables Association, British Plastics Federation, UK Phenolic Foam Association, Warrington Fire, Gypsum Products Development Association, Insulation Manufacturers Association, Mineralwool Insulation Manufacturers Association, National Fire Chiefs Council and the Ministry of Housing, Communities and Local Government.

What were the key changes to BS 8414 following the review?

Improved transparency around the fire test including details of the testing laboratory and its accreditation / Notified body status, details of the test sponsor including their relationship with installation teams, the date of and method of assembly and installation of the test specimen. Section 1 Scope and Section 4 principles have been heavily clarified. The Test Report shall now include the following:

- The construction details of the test specimen, including description, drawings, dimensions and components;
- Confirmation the test specimen is representative of the intended end use design and consists of all relevant components including the inclusion of cavity barriers / firebreaks;
- References the associated component manufacturer's design specification and installation details including identification marks and trade names;
- Is assembled and installed in accordance with the test sponsor's instructions, as would be expected in practise;
- includes details of any variations to the manufacturer's design specification and installation details and have been notified to the test laboratory;
- includes a record of mechanical damage and observed combustion;
- details of post-test examination to provide more detail on what visual inspection should be undertaken and records made.

What is the Scottish Government's view on desktop studies?

- The term "desktop study" has commonly been used to describe an assessment in lieu of a fire test.

- The Scottish Government does not endorse an assessment that is not based on test evidence and sound engineering principles.
- Direct application rules for cladding systems which has been subjected to a single or multiple BS 8414 fire tests has recently been published by the British Standards Institution, based upon the work of a committee which is both expert and independent of government.
- This new standard - BS 9414 - is cited in the Scottish Technical Handbooks which came into force on 1 October 2019 and is intended to be used by competent professionals.

Page 111-115 [redacted – out of scope]