

The Building (Amendment) Regulations (Northern Ireland) 2022

Department's Response to Public Consultation on Fire safety and Radon issues, including summary of responses

February 2022

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EXECUTIVE SUMMARY

The Consultation

1. There is a statutory duty here to consult the Northern Ireland Building Regulations Advisory Committee (NIBRAC) and such other bodies as appear to the Department of Finance (the Department) to be representative of the interests concerned on building regulations matters. A Part E 'Fire safety' technical sub-committee was established which included members of NIBRAC and seconded experts and personnel from industry, housing and enforcement bodies of District Councils and Fire and Rescue Service. The proposed changes were discussed and developed in consultation with the technical sub-committee and main NIBRAC committee prior to issue for a targeted public consultation.
2. The Department carried out an eight week Public Consultation exercise from 14th August to 9th October 2020 on proposed amendments¹ to The Building Regulations (Northern Ireland) 2012 (as amended), which included:
 - A new regulation 23(2) in Part B (Materials and workmanship) of the Building Regulations to require materials which become part of an external wall or specified attachment of a 'relevant building' to achieve a performance classification A1 or A2-s1, d0 in accordance with BS EN 13501-1: 2018 (in effect a ban on the use of combustible materials);
 - New guidance in Technical Booklet B (Materials and workmanship) and Technical Booklet E (Fire safety) to the new requirement of regulation 23(2);
 - Consequential amendment to Part A (Interpretation and general) of the Building Regulations to apply new regulation 23(2) to buildings which become a 'relevant building' after a material change of use;
 - Amended guidance in Technical Booklet E on external fire spread requirements to potentially include the introduction of BS8414 large scale testing and BR135 classification as an acceptable route to compliance for other non-relevant buildings;
 - New guidance in Technical Booklet E in relation to Assessments in lieu of tests (Ailots) or desktop studies;
 - An amendment to Part C (Site preparation and resistance to contaminants and moisture) and in particular regulation 25(3) 'Application and interpretation' to amend the definition of "*radon affected area*" to make reference to a Public Health England (PHE) publication '*Radon in Northern Ireland: Indicative Atlas*' of 2015;
 - Guidance changes in Technical Booklet C (Site preparation and resistance to contaminants and moisture) (TBC), to include reference to the 2015 PHE publication , and to the 2015 BRE publication BR211 'Radon guidance on protective measures for new buildings'.
3. The Department issued 396 consultation notifications to various stakeholders from industry and wider interested parties and published the Consultation Documents on its

¹ <https://www.finance-ni.gov.uk/consultations/consultation-amendments-building-regulations-northern-ireland-2012-amended-and-associated-technical>

website. The consultation was also advertised via twitter and facebook. An awareness session to clarify the proposals was held with the Construction Industry Forum (CIFNI), which was attended by various professional bodies of the construction industry.

Consultation Responses

4. The consultation received a total of 43 responses, 42 of which were technical and one not technical. 40 of the 42 technical responses completed the consultation questionnaire and 2 written submissions were received from respondents who did not complete the questionnaire. A list of the consultation respondents is available at Annex A.
5. The two respondents who replied to the consultation without completing the standard form were United Kingdom Accreditation Service (UKAS) and Association of British Insurers (ABI). The UKAS response was considered in relation to question E5 and the ABI response was considered in the context of general comments.
6. The breakdown of the 42 technical responses was as follows:
 - 24 of the responses came from industry: – 14 Insulation/cladding/other affected product manufacturers and their associations; 2 from construction organisations which were the Construction Employers Federation (CEF) and the National House Building Council (NHBC); 3 from Financial/Insurance Associations; 2 from Architectural organisations; 1 from an individual; 1 from a fire consultancy and 1 from UKAS;
 - 11 from District Councils who have responsibility for the enforcement of the building regulations through their Building Control services – 9 directly from Councils; 1 from Building Control Northern Ireland (BCNI) and 1 from NI Local Government Association (NILGA);
 - 5 from Professional bodies which were: Royal Society for Ulster Architects (RSUA); Royal Institute of Chartered Surveyors (RICS); Chartered Association of Building Engineers (CABE); Chartered Institute of Architectural Technologists (CIAT) and Royal Institute of Town Planners (RITP);
 - 1 from Northern Ireland Fire and Rescue Service (NIFRS) and 1 from the Fire Brigade Union (FBU).
7. Consultees responses were reviewed by the Department in conjunction with the Part E technical sub-committee and main NIBRAC committee.

Outcomes

8. Generally, the majority of responses were supportive of the proposals in relation to the fire safety changes. However, there were a number of issues raised which required further discussion with the Part E technical sub-committee and main NIBRAC committee.

9. The changes in relation to radon were welcomed however District Councils had highlighted some points which were considered by the Department in liaison with NIBRAC.
10. The Department intends to implement the changes in legislative requirements and associated technical guidance largely in accordance with the consultation proposals. There are some issues, however, that will require further consideration as part of future reviews of fire safety matters in building regulations.
11. A Final Regulatory Impact Assessment has been prepared for the proposed changes to Fire Safety. This indicates modest estimated costs of:
 - Costs to industry of £127k per annum; and
 - Initial familiarisation costs to industry and district council enforcement of £134k (first year only).
12. A Final Regulatory Impact Assessment has been prepared for the Part C amendment. This indicates modest costs of:
 - Initial familiarisation costs to industry and District Council enforcement of £22k (1st year only); and
 - A further £81k per annum thereafter.

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BACKGROUND AND INTRODUCTION TO PROPOSALS

1. The Department of Finance (the Department) has responsibility for maintaining the Building Regulations.
2. Building regulations apply to most building work and are made principally to ensure the health, safety, welfare and convenience of people in and around buildings, to further the conservation of fuel and power, protect and enhance the environment and to promote sustainable development. The Building Regulations currently comprise 16 'Parts', each covering a specific subject area although interrelations exist.
3. The current building regulations are The Building Regulations (Northern Ireland) 2012 (as amended) (the Building Regulations), and were made using powers provided in The Building Regulations (Northern Ireland) Order 1979 (as amended). It is proposed that the amendment, The Building (Amendment) Regulations (Northern Ireland) 2022, will be made using the same powers.
4. The Building Regulations set mainly functional requirements (i.e. they identify a reasonable standard that should be attained) and are supported by Technical Booklets giving guidance, including performance standards and design provisions, relating to compliance with specific aspects of the Building Regulations for the more common building situations.
5. Since consolidating the building regulations in 2012, the Department has produced a further three amendments to the 2012 Statutory Rule, namely:
 - The Building (Amendment) Regulations (NI) 2012, which amended Part A in relation to a procedural matter;
 - The Building (Amendment) Regulations (NI) 2014, which amended Part F (Conservation of fuel and power); and
 - The Building (Amendment) Regulations (NI) 2016, which introduced a new Part M (Physical infrastructure for high-speed electronic communications network).
6. Since the Grenfell fire tragedy, there has been much debate about compliance with the Building Regulations requirement for external walls on buildings to adequately resist the spread of fire. The objective of the change in Part B (Materials and workmanship) is to provide certainty about materials to be used in external wall systems for certain types of buildings ('relevant buildings') deemed to be high risk. The priority is to improve public safety by removing the flexibility previously given to designers and making the route to compliance with the Building Regulations clearer.
7. The amendments to Building Regulations and associated technical guidance booklets will in effect introduce a 'ban on combustible materials' for use on external walls and specified attachments of 'relevant buildings' and introduce guidance in relation to 'Assessments in lieu of tests'. The amendment will:
 - Introduce a new regulation in Part B to require materials on external walls of 'relevant buildings', to achieve a 'reaction to fire' performance classification that effectively bans the use of combustible materials on the external walls of these buildings. The ban will be focused on buildings where the risks are greatest. It will apply to high rise residential buildings with a storey over 18m in height. It will also apply to hospitals, residential schools, care homes, nursing homes and student

accommodation, all with a storey over 18m in height. Certain attachments to the external walls of these buildings such as balconies, will also be subject to the new requirement.

- As a consequence of the Part B amendment, there will be an amendment to Part A (Interpretation and general) of the Building Regulations to apply the new regulation to relevant buildings created as a result of a material change of use.
 - Introduce new guidance in Technical Booklet B (Materials and workmanship) and Technical Booklet E (Fire safety) in relation to the new regulation in Part B. Amended guidance in Technical Booklet E for fire spread requirements in external walls of buildings that are not within scope of the new regulation is also proposed.
 - Introduce new guidance in Technical Booklet E in relation to 'Assessments in lieu of tests' (AIlOTs) or desktop studies by another name. This guidance will give clarity to ensure they are only used where appropriate, with sufficient relevant test evidence and that they are undertaken by competent staff within appropriately certified organisations.
8. It is also proposed to make reference to more accurate radon measurement maps for dwellings here. The amendment specific to Part C will:
- Amend the definition of 'radon affected area' in Part C to give recognition to more accurate detailed maps in the 2015 Public Health England publication 'Radon in Northern Ireland: Indicative Atlas'. This atlas of radon maps will be used to determine if a dwelling through new build, extension or alteration requires radon protective measures or not.
 - Amend guidance on radon protective measures for Technical Booklet C (Site preparation and resistance to contaminants and moisture) to support the new change in Part C.

OVERVIEW OF THE CONSULTATION

9. There is a statutory duty here to consult the Northern Ireland Building Regulations Advisory Committee (NIBRAC) and such other bodies as appear to the Department to be representative of the interests concerned on building regulations matters. A Part E 'Fire safety' technical sub-committee was established which included members of NIBRAC and seconded experts and personnel from industry, housing and enforcement bodies of District Councils and Fire and Rescue Service. The changes were developed in consultation with the technical sub-committee and main NIBRAC committee prior to issue for a targeted public consultation.
10. The purpose of the consultation was to obtain comments and views of interested parties on proposed changes to Parts B and C and as a consequence Part A of the Building Regulations, and associated guidance in Technical Booklets B, C and E.
11. The Department carried out an eight week consultation exercise from 14th August to 9th October 2020 on the proposed changes. The Department has an extensive database of names of individuals and organisations that have expressed a specific interest in building regulations and technical guidance. 396 consultation notifications were issued to various stakeholders from industry and wider interested parties and the consultation documents were published on the Department's website. The consultation was also advertised via twitter and facebook. An awareness session to clarify the proposals was held with the Construction Industry Forum (CIFNI) which was attended by various professional bodies of the construction industry.
12. The consultation was divided into 21 questions with a number of subordinate parts within some questions. The first question (A1) asked the respondent about the proposed consequential change to Part A of the Building Regulations. The next 9 questions (B1 to B9) were specific to the amendments proposed to Part B of the Building Regulations. There were then 5 questions (C1 to C5) about the proposed amendment to Part C of the Building Regulations and accompanying Technical Booklet C. There were 5 questions (E1 to E5) in relation to changes to Technical Booklet E and one final question (G1) to give opportunity for respondents to submit any additional or general comments.
13. The consultation received a total of 43 responses, 42 of which were technical and one not technical. 40 of the 42 technical responses completed the consultation questionnaire and 2 written submissions were received who did not complete the questionnaire. A list of the respondents is given in the table in Annex A.
14. The breakdown of the 42 responses was as follows:
 - 24 of the responses came from industry: – 14 Insulation/cladding/other affected product manufacturers and their associations; 2 from construction organisations which were the Construction Employers Federation (CEF) and the National House Building Council (NHBC); 3 from Financial/Insurance Associations; 2 from Architectural organisations; 1 from an individual; 1 from a fire consultancy and 1 from UKAS;
 - 11 from District Councils who have responsibility for the enforcement of the building regulations through their Building Control services – 9 from Councils; 1 from Building Control (BCNI) and 1 from NI Local Government Association (NILGA);

- 5 from Professional bodies including Royal Society for Ulster Architects (RSUA); Royal Institute of Chartered Surveyors (RICS); Chartered Association of Building Engineers (CABE); Chartered Institute of Architectural Technologists (CIAT) and Royal Institute of Town Planners (RITP);
- 1 from Northern Ireland Fire and Rescue Service (NIFRS) and 1 from the Fire Brigade Union (FBU).

15. The two respondents who replied to the consultation without completing the standard questionnaire form were United Kingdom Accreditation Service (UKAS) and Association of British Insurers (ABI). The UKAS response related to question E5 and the ABI response is noted under question G1.
16. Three responses were received shortly after the closing date of the consultation but have been included for consideration in this analysis.
17. The percentages of respondents answering the questions in support and opposing the proposals are set out in the Table below.

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
A1	40	33	83%	6	15%	1	2%
B1	40	30	75%	10	25%	-	-
B2(a)	40	29	73%	10	25%	1	2%
B2(b)	40	18	45%	19	48%	3	7%
B3(a)	40	10	25%	22	55%	8	20%
B3(b)	40	14	35%	16	40%	10	25%
B4(a)	40	28	70%	9	23%	3	7%
B4(b)	40	23	58%	8	20%	9	22%
B5	40	27	68%	8	20%	5	12%
B6	40	22	55%	3	8%	15	37%
B7(a)	40	23	58%	9	23%	8	19%
B7(b)	40	17	43%	11	28%	12	29%
B7(c)	40	15	38%	8	20%	17	42%
B7(d)	40	23	58%	4	10%	13	32%
B7(e)	40	10	25%	5	13%	25	62%
B7(f)	40	26	65%	3	8%	11	27%
B8	40	17	43%	15	37%	8	20%
B9	40	7	18%	22	55%	11	27%
C1	40	23	58%	0	0%	17	42%
C2	40	24	60%	0	0%	16	40%
C3	40	22	55%	0	0%	18	45%
C4	40	20	50%	2	5%	18	45%
C5	40	13	33%	2	5%	25	62%
E1	40	25	63%	9	22%	6	15%
E2	40	31	78%	2	5%	7	17%
E3	40	32	80%	1	3%	7	17%
E4	40	19	48%	12	30%	9	22%
E5	40	27	68%	4	10%	9	22%
G1	43	-	-	-	-	-	-

18. Consultees responses have been reviewed by the Department in conjunction with the Part E technical sub-committee and main NIBRAC committee.

SUMMARY OF OUTCOMES

19. The following is a brief overview of responses to the consultation questions on the fire safety and radon matters. More detailed summaries are provided for each question in 'Summary of responses and Department intended actions' in this document.
20. Question A1 – a large majority were in favour of application of the new regulation to buildings which become a 'relevant building' after a material change of use. This was mainly based on the fact the risk in these buildings will be equal to the risk in a new building and hence the same requirement should apply.
21. Question B1 – 75% of respondents supported the introduction of a new prescriptive regulation 'banning' the use of combustible materials in external walls of 'relevant buildings'. The new regulation will provide clarity for all on what materials can and cannot be used on these higher risk buildings.
22. Question B2 – there was general agreement with the scope of buildings identified as 'relevant buildings' with an even split on whether hotels, hostels and boarding houses should be included in the definition.
23. Question B3 – a mixed response on the height threshold for application of the 'ban' was received.
24. Question B4 – a majority in favour of moving to the European classification system only in relation to combustibility requirements for materials used in external walls. Views were mainly based on the building sector being familiar with these classifications and they are kept up to date as opposed to National Classifications which can be based on BS 476 tests 30+ years old. No real view was expressed in expanding the classifications in the new regulation to include A1fl and A2fl-s1.
25. Question B5 – general support to apply the 'ban' to specified attachments as defined.
26. Question B6 – a majority support to exempt ground floor awnings from the ban was received. Views were mainly based on their negligible contribution to external fire spread if the rest of the façade is compliant.
27. Question B7 – general support received to add boiler flue plastic inner linings, external masonry wall paints and waterproofing and insulation material used below ground level up to 250mm above ground level to the exemption list. Cavity trays were suggested to be exempted for a set period of time and the issue of laminated glass in balconies was evenly split for inclusion on the exemption list.
28. Question B8 – Even split on those who answered 'yes' and those who answered 'no' to the question. Whatever the answer there was a general acceptance of the risk posed by metal composite panels containing 30% or more polyethylene but whether it was justified to ban their use on all buildings of any height or purpose was questionable. Department was urged to consider other equally high risk flammable products such as HPL panels.
29. Question B9 – Concerns were expressed by respondents on the time allowed for familiarisation and training of professionals for the proposed changes. Some respondents against the introduction of the 'ban' argued it was fundamentally flawed in

only offering 2 options and basing it on similar impact assessments carried out in England and Wales.

30. Question C1 – There was support for referencing the 2015 Public Health England publication for establishing if a dwelling was in a radon affected area or not.
31. Question C2 – There was support for the proposed change with suggestions, mainly from District Councils to make some minor adjustments to the guidance to expand measures to non-domestic buildings. The Department is aware that the NI radon Atlas Maps are informed by dwellings analysis only. The Department references the Ionising Radiation Regulations (NI) that already regulate, inspect and enforce radon protection in workplaces.
32. Question C3 – There was support for referencing BR211, with District Councils suggesting similar changes to that suggested in relation to question C2. The Department is aware that BR211 radon protection measures guidance, is limited to dwelling size properties with domestic type heating and ventilation systems.
33. Question C4 – There was a majority support in favour of allowing site specific radon risk reports however District Councils did express concerns about verifying these reports for enforcement, without free database access. The Department is aware that the equivalent England Local Authorities free access, was only established due to their legal obligations to comply with reporting requirements in England's Conveyancing Law.
34. Question C5 - There was majority support for the costs/assumptions in the RIA. A small number of responses did not agree with aspects of the RIA cost analysis that appeared low, and that a specific design profession was disproportionately affected. The Department understands the need for independent cost analysis, which had been provided by DoF Economist Branch officials.
35. Question E1 – Majority support received for the new guidance in relation to 'relevant buildings'.
36. Question E2 – General support received for the amended guidance in relation to non-relevant buildings in TBE. There was majority support for the introduction of the BS8414 test/BR135 classification as an alternative route to compliance for non-relevant buildings. Some wanted it extended to all buildings and some wanted to go further and see it recognised as the only route to establish compliance with external fire spread requirements.
37. Question E3 – Similar to the outcome in relation to question B4, a large majority were in favour of moving to the European Classification system only for establishing performance classifications for reaction to fire for surfaces of external walls.
38. Question E4 – A small majority were in support of the proposed new guidance on Regulation 36 and its application in relation to low rise buildings. A number of respondents wished to see specific performance based guidance for materials to be used in external walls of buildings below 18m in the same way guidance is given for 18m+ buildings.
39. Question E5 – General support received for the introduction of new guidance in relation to Assessments in lieu of tests (Ailots). However, some expressed reservations on the scope of application for these assessments, the confusion which may result as to who is

qualified, competent to carry such assessments out. One respondent highlighted changes were needed to the proposed guidance in relation to 'notified bodies' which will be obsolete post Brexit transition period.

Summary of Responses and Department intended actions to Consultation Questions – Fire Safety

40. The Department's intended actions are shown in *italics* for ease of reading.

Question A1. Do you agree with the proposal to require a building which becomes a 'relevant building' due to a material change of use to be subject to the requirements of new regulation 23(2)?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
A1	40	33	83%	6	15%	1	2%

41. The amendment will mean any building which becomes a 'relevant building' after a material change of use will be subject to the requirement of regulation 23(2). It may mean any such building will have to remove all combustible material from the external walls and specified attachments and replace with non-combustible or limited combustible materials achieving European Classification A1 or A2-s1, d0.

42. The vast majority of respondents supported the proposal giving reasons such as:

- Any requirement which will apply to new build residential buildings should equally be applied to residential buildings formed by a material change of use;
- The risk to occupants in either scenario (new build or as a result of change of use) will be the same;
- The proposed change will enhance public safety and firefighter safety;
- The resulting health, safety, welfare and life benefits for occupants from a potential external façade fire outweigh the probable financial cost to the developer;
- One respondent commented that developers could proceed under permitted development (as they can in England) without adhering to the necessary safeguards/requirements established under building regulations;
- This will be consistent with the application in England and Wales;
- The FBU wished the NI Executive to go further and apply the ban to all buildings and not to wait for material changes of use to occur;
- The RSUA agreed with the proposal but wanted clarity on material change of use Case IX (the building which contains at least one dwelling, contains a greater or lesser number of dwellings than it did immediately prior to the change) and Case X (the building contains a room for residential purposes, where immediately prior to the change it did not). They argue if there is no significant risk and that risk does not alter with the material change of use, then there should be no requirement to replace all the external wall.

43. Those answering no to the question gave reasons including:

- A qualified fire engineer should investigate and decide whether replacement of the external walls is required or not, based on an holistic assessment of the fire risk posed based on the precautions and strategy in the building;
- It's an oppressive requirement to remove the external fabric of a building without any assessment and consideration of the complexity of fire safety measures already in the building;
- It places undue costs, delays on building stock and exposes the building elements to water ingress and unnecessary damage to the building;
- A large scale BS8414 test could be used to retrospectively assess the construction build up to provide an evidence based engineering assessment on the performance of the building fabric prior to the unnecessary removal of the whole façade;
- Confusion in the industry with what constitutes a 'relevant building' with evidence in England indicating this requirement being applied to buildings of all types and heights irrespective of being in scope or not;
- Evidence again in England of the 'ban' and subsequent application through a material change of use being applied to buildings under the 18m threshold, primarily being driven by the insurance industry taking a complete risk averse view and limited understanding of building regulations and in particular combustibility and no understanding of large scale BS8414 testing;
- The belief that cost increases and delays will occur and thermal performance will be compromised as a consequence.

With 83% support from respondents, the Department intends to apply the new requirement in Regulation 23(2) to 'relevant buildings' created as a result of a material change of use. The specific application of Regulation 23(2) in Part B (Materials and workmanship) for each Case of 'Material change of use' in Part A of the building regulations will be made clear in a revised Table and amended notes to the Table in Regulation 8.

Question B1. Do you agree that combustible materials (bar the exemption list - see proposed regulation 23(3)) in external walls of relevant buildings as defined, should be banned through law? If no, please comment how else the ban could be achieved.

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
B1	40	30	75%	10	25%	-	-

44. The amendment will introduce a new regulation to in effect 'ban' the use of combustible materials in external walls and specified attachments for 'relevant buildings' (i.e. those higher risk residential type buildings with a storey over 18m in height).
45. The simple consultation return statistics indicated a majority support (75%) for the new regulation. Reasons given by respondents included:
- the new regulation will provide certainty on the materials that can be used for these type of buildings;
 - it will provide clarity prescriptively how to comply where currently confusion exists with the various methods of compliance that are available;
 - respondents also cited that this would bring NI into line with other parts of the UK (namely England and Wales but not Scotland);
 - The 'ban' was supported by NIFRS, the FBU, the professional bodies of RICS, RSUA and CABE. 9 of the 11 District Councils responsible for enforcement of the building regulations here, welcomed it on the basis it would provide clarity for relevant buildings and avoid the confusion that currently exists on routes to compliance. It was also supported by the financial institutions UK Finance and British Insurers Association along with a number of other respondents. Product manufacturer 'Rockwool' which produces non-combustible products was also in favour of the ban.
46. A number of respondents (mainly product manufacturers and their associations) did not support the proposed 'ban' on the basis:
- it was an overly simplistic view of fire safety;
 - it does not guarantee fire safe buildings;
 - it prohibits the use of materials that have been proven to perform adequately when tested to large scale system testing to BS8414;
 - they argued the 'ban' would place undue credibility on small scale laboratory tests for complex multi-component external wall assemblies in high rise facades;
 - that it will result in products becoming more difficult to procure;
 - will have a knock on consequence for thermal requirements in buildings making it more difficult to achieve those standards; and
 - anything short of whole system testing would not achieve the objective of ensuring the safety of building occupants.
 - Those against the 'ban' and advocates of BS8414 testing included Kingspan, Energystore Ltd, National Insulation Association of Ireland (NIAI), Engineered Panels In Construction (EPIC), Insulation Manufacturing Association, UK phenolic foam manufacturers association, British Blind and Shutter Association and Efectis UK and Ireland (a test house in NI which carries out BS8414 tests). The professional body Chartered Institute of Architectural Technologists (CIAT) were also against the ban favouring an holistic approach to establishing adequate external fire spread requirements

47. The new regulation will require materials (bar exemptions) used in external walls and specified attachments of 'relevant buildings' to achieve a performance classification of A2-s1, d0 minimum, which is established using small scale fire tests for each individual component. Combustible materials cannot achieve this performance classification and will thus be 'banned' from use on 'relevant buildings' (hence the use of the term 'Ban on combustible materials').
48. England introduced a 'ban' on the use of combustible materials in 'relevant buildings' through a new prescriptive regulation in 2018, in the same way as what is proposed here. For 'relevant buildings' in those jurisdictions, materials (bar exemptions) which become part of an external wall or specified attachment are required to be European Classification A1 or A2 s1, d0. Compliance with building regulations via the alternative route to compliance of large scale BS8414 test and BR135 criteria is not acceptable for those buildings.
49. Wales introduced the same requirement as England in Jan 2020.
50. Scotland introduced arguably more onerous requirements through guidance as opposed to prescriptive regulation and an outright 'ban', with effect from 1 October 2019. In doing so, the option of using the alternative approach of a BS8414 large scale test and BR135 classification report to demonstrate compliance with external fire spread requirements was still available. However, from 01 April 2021 the Scottish Minister for Local Government, Housing and Planning announced a precautionary action to avoid the use of Category 3 MCM cladding materials in new build work and to remove reference to BS8414/BR135 as alternative guidance in their Technical Handbooks. Both these measures were seen as an interim measure until conclusion of deliberations by the building standards fire safety review panel.
51. To inform their deliberations, Scotland issued a consultation package on external wall systems and specifically the fire safety of cladding on 16 July 2021. That package considered amended wording for mandatory standard 2.7 which deals with external fire spread; a new definition and ban on the highest risk metal composite material (MCM) cladding panels and options to improve standards and guidance on cladding systems, including the future role if any of the large scale fire test BS8414.

The Department intends to introduce the new Regulation 23(2) as drafted.

For 'relevant buildings' which are seen as the higher risk type of buildings, the Department feels the more straightforward method of requiring all components to be a minimum A2 s1, d0 classification is the best approach to follow. Combustible materials cannot achieve this classification and will be 'banned' from use on these buildings. BS8414 tests/BR135 classification will not be acceptable as a route to compliance for 'relevant buildings'.

This approach provides clarity and certainty to all involved (designers, procurers, contractors, installers, enforcers) as to what materials are acceptable to use and which are not. It also provides a consistent approach with England and Wales.

Question B2. (a) Do you agree that the ban should apply to the scope of buildings as defined by a relevant building? (b) Do you think hotels, hostels and boarding houses should not be excluded in the definition of relevant building but rather included and thus be subject to the ban?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
B2(a)	40	29	73%	10	25%	1	2%
B2(b)	40	18	45%	19	48%	3	7%

52. The scope for 'relevant buildings' which the new regulation will apply to are those mainly of a residential type with a storey over 18m in height. Hospitals, care homes, nursing homes and student accommodation all with a storey over 18m will also be subject to the 'ban'. Some respondents believed the scope of buildings should also include hotels, hostels and boarding houses.

53. In relation to question B2(a), the majority of respondents supported the proposed definition of 'relevant building' and the scope of buildings which it covers. This support was mainly based on agreeing that the factors to consider for highest risk include:

- Is there a sleeping risk;
- lack of management controls;
- the likelihood of a 'remain in place' design and evacuation strategy;
- the number and design of escape routes.

54. The 25% who opposed the proposed scope of buildings were mainly the same respondents who disagree with the introduction of a 'ban' at all under question B1 and hence do not agree with any scope of buildings the ban should apply to.

55. In relation to question B2(b), there was an even split between those supporting the inclusion of hotels, hostels and boarding houses in the definition of relevant building and those not supporting the extension of the ban on combustible materials to these buildings.

56. Reasons for including hotels, hostels and boarding houses in the ban included:

- These buildings have an obvious sleeping risk with in most situations people being unfamiliar with their surroundings;
- The nature of the occupancy can very often involve vulnerable people (elderly, disabled, young children – all with potential mobility issues and possible unpredictable behaviour) and sometimes people can be under the influence of drink;
- Possibility that some occupants will not be fluent in English to fully understand following instructions and the night staff being minimal in some premises;
- Other reasons given include escape routes in such premises can be complicated and simply to provide a consistent approach with domestic residential buildings and avoid confusion for designers.

57. Reasons given by those who argued for hotels, hostels and boarding houses to be excluded included:

- They are buildings of less risk;
- They are a more managed type of premises subject to fire safety legislation which involves regular inspection and fire risk assessments which the NIFRS are the enforcing authority on;
- Evacuation strategies in these buildings are well managed with full fire alarm systems in operation and good signage with a 24 hour reception so someone is always awake to raise the alarm;
- No 'remain in place' policy, rather total evacuation strategies and increased number of escape routes;
- There will be a minimum performance classification (A2- s2,d3) for materials including cladding and insulation used on these buildings with a storey over 18m in any case;
- Home Office statistics which indicate deaths in domestic residential type buildings are 3 times higher than those in other residential type buildings with a sleeping risk such as hotels.

58. Those supporting the inclusion of hotels, hostels and boarding houses included NIFRS, the FBU, and the professional bodies (RSUA, RICS, CABE and CIAT). The RSUA went further and called for the 'ban' to be extended to all buildings where a catastrophic event could cause multiple fatalities such as all buildings where people sleep - hospitals, care homes, schools, nurseries and public assembly buildings such as theatres and community centres.

For this amendment, the Department intends to replicate the 'ban' introduced in England in 2018 and not include hotels, hostels and boarding houses in scope for now. This will assist industry with a common approach in different regions. Further amendments are likely in England in relation to the scope of buildings covered. The Department will consider any future adjustment to the scope of buildings covered here in light of any such changes.

Question B3. (a) Do you agree that the height threshold of the ban should be set at 18m?

(b) Do you think a lower height threshold of 11m should be set?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
B3(a)	40	10	25%	22	55%	8	20%
B3(b)	40	14	35%	16	40%	10	25%

59. The proposed ban will apply at a threshold height of 18m. However, some respondents felt this height should be set at 11m.
60. One explanation for the low support on this question could be related to the fact a lot of respondents pointed out that the heights chosen were completely arbitrary and not based on any scientific evidence or research. The District Councils in particular expressed the view that other factors should be considered such as building footprint, 'remain in place' policy in operation or not, the extent of fire alarm system in the building and not just solely basing risk in a building on height alone. NHBC and others commented that the height should be based on evidence and research.
61. Some respondents, mainly product manufacturers referred to the Hackitt review which indicated buildings with 10 storeys or more should be considered as high risk requiring particular fire safety measures. To support this they highlighted Home Office fire statistics which indicated there is little difference between the fire deaths in 1-3 storey buildings containing flats and those in 4-9 storeys.
62. Of those who expressed an opinion on the choice of 11m or 18m, it appears there was a greater number in favour of the lower threshold height of 11m. This was supported by the NIFRS and FBU mainly based on the fact that 11m is accepted as the uppermost height that Fire Service can effectively tackle an external fire on the façade of a building. The FBU responded it should be 11m or 4 storeys whichever comes first. One respondent suggested 11m or 3 storeys whichever comes first. Another respondent highlighted the fact that the requirement for sprinkler provision in flats in England now has a threshold height of 11m and the same threshold should be applied for this requirement. Some just expressed the wish for a consistent height across the regions of the UK.
63. RICS reiterated in its response the position of advocating for 11m threshold which it publically called for some time ago, again based on the accepted majority opinion that this height is the accepted height for adequate external firefighting techniques. The Insurance industry commented that they were already implementing standards on a basis of 11m height threshold.
64. The RSUA advocated 18m or 5 storeys whichever is reached first and referenced the NFCC submission to the review of fire safety standards in England recently where they expressed the view to measure in storeys rather than building height.

The arbitrary nature of height thresholds is acknowledged on this matter and the comments around 11m as the upper threshold limit for effective external firefighting techniques. The Department for Levelling Up, Housing and Communities (DLUHC) in England has commissioned research on this issue and indicated buildings below 18m did not require

completion of an EWS1 form². They point to statistics which indicate the risks involved for buildings below 18m are greatly reduced compared to those over 18m.

For this amendment, the Department is to apply the 'ban' at a height threshold of 18m. This will be consistent with the current position in England and Wales and provides uniformity for the industry. If a lower threshold is chosen by other regions in the future, then the Department will reconsider for future amendment here.

² <https://www.gov.uk/government/speeches/proportionality-in-building-safety>

Question B4. (a) Do you agree that the European classification system should be used and do you consider that Class A2 s1, d0 or better to BS EN 13501-1 2018 is the correct classification for materials to be used in wall construction for relevant buildings?

(b) Do you think the classifications should include A2fl-s1 and Class A1fl for materials used horizontally?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
B4(a)	40	28	70%	9	23%	3	7%
B4(b)	40	23	58%	8	20%	9	22%

65. In relation to B4(a) there was a general consensus of support in the responses for moving to the European classifications only in relation to 'reaction to fire' performance classifications for materials to be used on external walls and specified attachments of 'relevant buildings'.

66. Some reasons given for this included:

- not aware of a more relevant system for classifying reaction to fire characteristics of materials and that this will bring NI into line with other UK regions and provide consistency;
- keeping the classifications simple will add to clarity and reduce likelihood of wrong materials being used;
- It was pointed out that the European classification system is updated regularly particularly post Grenfell while the alternative National classifications are not and can be based on test standards 30 years old;
- Some welcomed the removal of reference to Class 0 national classification which has been widely criticised as inappropriate for external cladding and has been manipulated or claimed to be equivalent by a lot of manufacturers in the UK to more onerous European classifications;
- Current European standards would lead to a more up to date, stringent and simplified approach. It is also the classification system familiar to most in the building industry.

67. Concern was expressed by some on the year cited of BS EN 13501-1 2018 within the prescriptive regulation. Their concern related to whether a material which was classed to BS EN 13501-1: 2007 would be acceptable for use or not.

68. Only one respondent felt the alternative National classifications based on BS 476 test standards should also be acceptable alongside referencing the European classifications.

69. In relation to B4(b), not a large amount of comment was received on introducing the A2fl s1 or A1fl classifications for floors. One respondent pointed out that further research in this area is required to establish if such classifications are achievable for balcony floors which contain waterproofing membranes or single ply membranes.

By replicating the 'ban' introduced in England in 2018, there will be a consistent application for industry of the new requirement to external walls and specified attachments of 'relevant buildings' in various regions. Requiring materials to perform in European classifications only in the new regulation will be consistent with GB regions. The inclusion of A1fl and A2fl-s1, d0

classifications in the new regulation will be considered for future amendments subject to developments in other regions.

Question B5. Do you agree with the ban applying also to specified attachments (as defined) to external walls?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
B5	40	27	68%	8	20%	5	12%

70. The ‘ban’ will apply to specified attachments of relevant buildings also which will include balconies attached to an external wall, solar panels attached to an external wall and devices for reducing heat gain within a building by deflecting sunlight attached to an external wall.
71. There was a majority support (all District Councils, NIFRS, FBU and most professional bodies) for the ‘ban’ extending to specified attachments and the main reason given was that these attachments can cover an extensive area (particularly balconies) and make a significant contribution to external fire spread (particularly timber balconies), so should be equally controlled.
72. The FBU asked for the ‘ban’ to go further and apply to all attachments (not just specified attachments as defined) such as window spandrels and brise soleil. Some respondents wanted the Department to wait on the outcome of the consultation in England in 2020 into the review of the ban introduced there.
73. A number of respondents wanted clarification on what constituted a balcony. Some wanted clarification on recessed balconies, walkways and the difference between balconies and terraces. In this regard reference was made to BS 8579 by some respondents urging the Department to consider the definitions within this standard and to be consistent with them in relation to this requirement in building regulations.
74. The respondents not supporting the proposal (mainly product manufacturers) were again the same respondents who disagreed with the introduction of a ‘ban’ at all. One respondent wished to see some sort of allowance for these attachments if set a minimum distance apart based on research and evidence in the same way there is provision in guidance for minimum safe distances for flue outlets.
75. A detailed response from the British Blind and Shutter Association (BBSA) made several points about retractable and extendable sun shading devices. They suggested these devices should be added to the exemption list on the basis there is no evidence in previous fires of their contribution to external fire spread on a building. They also highlighted a significant number of small components which make up these retractable devices should also be exempt.

Research by DLUHC into balconies and their contribution to external fire spread is on-going. The intention for this amendment is to progress with the definition of ‘specified attachment’ as proposed in regulation 22 of Part B of the Building Regulations. Future changes in other jurisdictions on definition of ‘specified attachment’ based on outcomes from research will be considered in due course for future amendment here.

Question B6. Do you agree that retractable awnings fitted to the ground storey should be exempted?

If yes what restrictions should be placed on these?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
B6	40	22	55%	3	8%	15	37%

76. Awnings are a sun-shading device which fall under the definition of specified attachment and hence will be subject to the 'ban'.

77. There was general agreement from respondents to exempt retractable ground floor awnings from the new requirement. The reasons given included:

- They should have a negligible impact on external fire spread on a façade which is otherwise compliant with external fire spread requirements and hence not pose a significant risk;
- NIFRS wished to see them exempted so they could burn away to allow heat and smoke to vent freely as opposed to heat and smoke from a fire below an awning radiating downwards. Given many of these devices are located close to escape routes/final exits, there was a concern this would compromise occupant safety;
- Some respondents felt they should be exempted but also not be located over emergency exits;
- The point was made that in the current climate of Covid and people queuing outside shops etc. and dining outside, these devices are useful for protection from the elements.

78. Some respondents wished to see some control on awnings at ground floor such that they should be treated with non-leachable fire retardant, satisfy a certain limited combustibility classification or be of a certain fire resistance.

79. The small minority who wished to see them not exempted did so on the basis there should be no exemptions to the 'ban' for any component on an external wall façade.

80. The response from BBSA questioned why only one specific product category (awnings) was subject to possible exemption and not other retractable shading devices used at ground floor level such as roller blinds and shutters. They reiterated their belief that all extendable and retractable shading devices present no risk of external fire spread and should therefore be exempt. They pointed to fire statistics which indicated no evidence of these devices contributing to fire spread in buildings in 200 years of use.

81. The BBSA also highlighted that the fabric material used in awnings is used because of its ability to prevent occupants and furnishings being exposed to ultraviolet radiation and to increase the longevity of the product (prevent fading etc.). They argued awnings would not meet the A1/A2 classification for the 'ban' and that no other fabric exists to provide an equal level of protection from ultraviolet light.

This issue is subject to the review of the ban in England with DLUHC indicating there will be changes to their equivalent exemption list.. Whether ground floor retractable awnings are

added to the list or how this item is dealt with in England remains to be seen. At this point to replicate the 'ban' that England introduced in 2018, ground floor retractable awnings will not be added to the exemption list for this amendment but will be considered for a future amendment if other regions do similarly.

- Question B7. (a) Do you agree with the list of exemptions in Regulation 23(3)?**
(b) Do you think boiler flues with a plastic inner lining should be added to the list?
(c) Do you think certain paints used on external masonry walls should be added to the list?
(d) Do you think all cavity trays should be exempt?
(e) Do you think laminated glass in balcony construction should not have to achieve A2-s1, d0 or A1 classification and be exempt?
(f) Do you think water proofing and insulation material from below ground level to up to 250mm above ground level should be exempt?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
B7(a)	40	23	58%	9	23%	8	19%
B7(b)	40	17	43%	11	28%	12	29%
B7(c)	40	15	38%	8	20%	17	42%
B7(d)	40	23	58%	4	10%	13	32%
B7(e)	40	10	25%	5	13%	25	62%
B7(f)	40	26	65%	3	8%	11	27%

82. The 'ban' will apply to external wall systems and specified attachments of 'relevant buildings'. Some products/components that are necessary for the wall to function do not come in a Class A1 or A2-s1, d0 and hence there is a need for an exemption list to allow use of combustible materials where the risk of external fire spread is low and it would be disproportionate to 'ban' their use.
83. There was general agreement from respondents to have an exemption list but concerns were expressed:
- It is difficult to provide an exhaustive and definitive list;
 - The list will need periodically reviewed as further products with negligible impact on fire spread are identified;
 - Some sort of mechanism will need established to exempt new products;
 - A prescriptive approach can be detrimental to both design and compliance;
 - It is important for industry to be clear on the types of materials and components that are exempt;
 - A prescribed list will never be complete due to research and development of new materials and products;
 - Some agreed with a list but disagreed with an enactment of law to make changes to it as the technology of building moves faster than regulatory change;
 - Some felt the list was not comprehensive enough to avoid confusion and issues for the industry about keeping the list up to date quickly when new products become available;
 - It would be desirable to have the same exemption list as DLUHC in England;
 - Reference was made to publication '*Survey of the views of industry stakeholders on the effectiveness, issues and impacts of the initial operation of the ban in England on combustible materials in the external walls of buildings*' carried out by consultants Adroit economics Ltd. This highlighted considerable confusion among the industry with what was exempt and what was not in relation to the 'ban' in England.
84. Some respondents used this question to highlight why it was the wrong decision to follow a 'ban' on materials route if it meant creating a long exhaustive list of exemptions. The fact that the consultation proposes a list of combustible materials for exemption was

indicative of the weakness of the argument to ban individual products in other applications. They referenced systems meeting testing criteria to BS8414 as a sufficient method to meet safety standards without needing a 'ban'.

85. The BBSA questioned why certain components were proposed to enjoy an exemption when there are clearly non-combustible alternatives citing aluminium window frames vs PVC window frames. Their belief was that any product for which there is no evidence of the risk of fire spread should therefore be exempt. They believed no product should be banned from being used in construction where there is no equal alternative available on the market.
86. In relation to B7(b) there was a majority support to exempt plastic inner linings to boiler flues. Some suggested the risk was minimal if the other materials on the outside of the building were non-combustible. Some suggested these items would have no significant impact on increasing spread of fire.
87. In relation to B7(c), a small majority felt masonry paints should be added to the exemption list again based on assessment of posing minimal risk to fire spread.
88. In relation to B7(d), a majority felt all cavity trays should be exempt. Some cited their contribution to fire spread as being negligible and that they are an essential part of the build. Those against exempting all cavity trays suggested non-combustible cavity trays are already under development and that any exemption for all types of cavity trays should at best be time limited.
89. In relation to B7(e), a majority felt laminated glass in balcony construction should be exempt. NIFRS were against exempting as the glass on balconies could extend to full height and could permit fire to spread vertically. They also felt balconies pose a particular risk due to their use for barbeques, smoking and storage of combustible materials. People may also need rescued from a balcony and therefore the laminated glass should have the same classification as the rest of the balcony.
90. NHBC had no evidence to support exempting or not exempting laminated glass in balustrades and suggested research be undertaken to underpin any direction chosen. These comments are in contrast to those of RSUA which highlighted problems for the industry in England with laminated glass being 'banned' for balconies and curtain wall systems. They argued laminated glass is the preferred glass type for balcony construction due to its ability to remain in place when it breaks. To 'ban' laminated glass would effectively exclude glass balustrades which offer light, views, protection from the wind and safety for occupants, unlike toughened glass which does not offer equivalent safety. They concluded for the evidence to be produced to show where laminated glass in balconies has contributed to fire spread and suggested the proposed 'ban' is inconsistent with allowing its use in windows, which will be exempt.
91. One respondent simply suggested laminated glass in balcony construction does not pose any significant risk. Another respondent suggested that exposed laminate on cut edges should have a metal or intumescent trim on all exposed edges to prevent it being able to burn and result in glass dropping.
92. In relation to B7(f), a large majority felt waterproofing and insulation material used below ground level up to 250mm above ground should be exempt. The RSUA felt this should be extended up to 600mm above ground level to account for stepping in different construction technologies. The main reasons given were that it posed minimal risk to

have a significant impact on fire spread and that requiring A1/A2 (typically fibrous materials) is impractical due to the risk of water absorption and resulting impact on stability and thermal performance.

93. Only one response thought they should not be exempt because there are non-combustible alternatives such as cellular glass.

The exemption list created for consultation purposes is the list that will be used for new regulation 23(3).

Following the review of the 'ban' in England, DLUHC have indicated there will be a number of changes to their equivalent exemption list. Research from DLUHC on the use of laminated glass in balconies is on-going. Consideration of any changes in England and how they manifest in regulations and guidance will inform any decisions on the exemption list for here as part of any future amendment.

Question B8. Do you agree metal composite panels with a polyethylene core of 30% or more should be banned from being used in external wall construction of any building regardless of height or purpose? If no please explain why.

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
B8	40	17	43%	15	37%	8	20%

94. Research has indicated products containing polyethylene core of 30% or more by mass are by far the most hazardous cladding materials of those tested post Grenfell fire tragedy. The proposal at consultation was to 'ban' their use on any building, regardless of height or purpose.

95. The responses indicated a general acceptance that polyethylene (PE) ACM panels were unique in terms of their significant contribution to external fire spread. There was an even split on those supporting the proposal and those that did not.

96. Those in favour of the outright ban gave reasons such as:

- NIFRS felt any building fitted with metal composite panels with a PE 30% or more posed too great a risk to occupants regardless of height or purpose, citing the Grenfell fire as ample demonstration of the risk;
- The FBU commented they had discussed the 'ban' on ACM (with 30% or more PE) with Australian firefighter unions in New South Wales who have already introduced a similar ban, urging more stringent examples like this in all jurisdictions in the UK;
- Some respondents argued it would give clarity to the industry that these products are not acceptable in any building circumstance;
- Some felt not only metal composite panels with 30% or more PE should be banned but also any cladding material with an equal or worse Euroclass reaction to fire rating.

97. Those answering no to the question gave reasons such as:

- Even though they were fully aware of the highly flammable nature of PE and the risk it poses in certain buildings, they would have no evidence to justify banning on buildings of any height or purpose;
- They saw merit in banning highly flammable cladding panels on a range of buildings especially those containing a sleeping risk or recognised occupancy risk (hospitals), irrespective of height but not on all buildings;
- They felt the ban on such products should be based on risk to occupants primarily;
- They felt other products such as High Pressure Laminates (HPLs) which have been found to promote and sustain rapid fire spread should be considered equally for a ban particularly in buildings where there is a sleeping risk and a 'remain in place' strategy is employed;
- There would be little justification by way of statistics to ban their use in low rise and small non domestic, industrial or commercial buildings;
- They did not agree with banning materials based on composition or performance in small scale tests. Rather these respondents felt products should be ruled out through rigorous large scale testing and failing that criteria (BS8414 and BR 135);
- Some respondents agreed that this product should not be used in high rise residential buildings but argued full testing is the best way of screening them as they will not pass the rigorous test;

- Although welcoming the direction of travel, NHBC highlighted concern about specifying a percentage by mass of polyethylene core. It could be inadvertently exceeded or not in the core which could lead to inadvertent product substitution.

This issue is subject to research and discussion in other jurisdictions. It is hoped outcomes from that research and discussion will lead to developments in the coming period. It is prudent to await those outcomes before consideration for banning such materials/products here.

Question B9. Do you agree with the assumptions, costs and impacts set out in the consultation stage RIA?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
B9	40	7	18%	22	55%	11	27%

98. Only a small number of respondents agreed with the costs associated with the consultation stage RIA and gave reasons including:
- They agreed with the Planning Statistics information which indicated approximately only 3 buildings per year would be affected by the change and hence minimal impact on industry would occur;
 - Some accepted the costs at face value and welcomed the point in the RIA about potential supply chain issues with ROI for manufacturers operating in both jurisdictions.
99. Most respondents disagreed with the costs and assumptions involved and gave reasons including:
- District Councils' opinion was the lead-in times for familiarisation by building control surveyors and the time taken for updating office guidance and disseminating the same were unrealistic. They suggested revised times for both these parameters;
 - The FBU felt the impact assessment focused on costs to industry and employers and felt it needed to be wider to analyse the social costs and benefits and the resource implications for fire and rescue services;
 - One respondent disagreed that there would be no costs associated with increased cavity dimensions to accommodate non-combustible insulation as opposed to using combustible insulation;
 - RSUA felt the time allocated to architectural practice to become accustomed to the changes was grossly underestimated. They felt design time and construction would be extended as a consequence of this change and suggested revised times per architect to understand the changes. They also stressed they supported the changes but felt the costs should be anticipated and borne by those commissioning buildings and not be a hidden cost to those designing buildings;
 - Kingspan and the NIAI felt the impact assessment was fundamentally flawed and limited in scope. They disagreed that it was based on other UK regions' RIAs and disagreed with 'crudely adjusted figures' based on population or loose assumptions for NI. They felt there had been no industry engagement or consultant appointed to assess the impact for NI and raised the point that no collateral impact of the implementation of the 'ban' in terms of unintended application to all buildings had been done. They disagreed with only offering 2 options referencing the option of large scale testing being ignored which is contrary to ROI, Scotland (Scotland have since withdrawn reference to large scale testing as an alternative) and mainland Europe which supports evidence based large scale testing as a robust method of demonstrating fire safety. They claimed the impact assessment was misleading because it misrepresented the differences between Scotland and England. They highlighted evidence of architectural practices issuing directives to only use A rated materials on all projects due to pressure from insurers who are uninformed and simply think a 'ban' is the only way forward. They pointed to evidence of buildings being future proofed with A rated materials in the event of a potential future change into a 'relevant building'. This unintentional impact of the 'ban' they argued needed to be taken into consideration and urged the Department to reconsider;

- Some respondents felt it was based on other regions of the UK and not NI and felt there was no industry engagement to ascertain their expertise. They also highlighted the option of large scale testing;
- Rockwool believed the changes would have no impact on the cost and functionality of buildings nor hamper any flexibility in architectural design. They argued the ban in England and Wales demonstrated the benefits of a prescriptive regulatory approach. They said the market is adapting with companies introducing innovative non-combustible products. They highlighted that the RIA does not go far enough in advocating the benefits by considering the reduced disruption to education costs and the reduced adverse health impacts;
- A detailed response from BBSA wanted the Department to holistically analyse the impact this will have on the shading industry, the health and wellbeing of occupants, comfort and productivity of occupants, the environmental impacts against the risk of fire spread from these products. They highlighted the energy efficiency and environmental benefits of extendable and retractable external shading. They highlighted government policy for future homes standard regarding overheating and the use of retractable external shading as a product to assist in reducing overheating. They cited Public Health England which estimates 900 heat related deaths in 2019 in England. Awnings and sun shading devices can reduce heat gain due to their uv light absorbing properties. They expressed concern about the impact on small and medium businesses if extendable and retractable solar shading products could not be used in future. They commented that no other EU nation requires classification for combustibility.
- EPIC highlighted that the ban in England since being introduced was causing difficulties: detailing was more complex, normal acceptable materials were no longer acceptable and alternatives were hard to find, adverse impacts on delivery times and a third believed there was an increase in costs. Regarding remedial work they said it could be billions of pounds and consequences of buildings being stripped of weather protection leading to potential health problems for occupants, increased fuel poverty and growth in winter deaths. They asked that this human cost is measured in the impact assessment.

The two Options considered in the RIA are the same as that considered for the same regulatory changes in England and Wales. Adjustments to the time allowed for professionals to become familiar with the changes has occurred as a result of the consultation responses. A final RIA will be published alongside the amending Statutory Rule and amendments to technical guidance booklets.

Question E1. Do you agree with the guidance proposals in Section 5 of the consultation version TBE for ‘relevant buildings’?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
E1	40	25	63%	9	22%	6	15%

100. New guidance is proposed for Section 5 ‘External fire spread’ of TBE on demonstrating compliance with the new requirement 23(2) in Part B of the Building Regulations for ‘relevant buildings’.
101. Most respondents were satisfied with the contents of the new guidance giving reasons including:
- The guidance appears sufficient for industry with regard to the new Part B requirement;
 - The guidance proposals were clear and unambiguous;
 - NHBC noted the guidance was generally in alignment with that adopted in ADB in England and supported the parity across the UK.
102. Some gave their support but wanted clarification on a number of points:
- The RSUA asked for a consolidated TBE to be produced as opposed to having to read an addendum in conjunction with the existing booklet. They also wished to see guidance of threshold storey height of 18m or 5 storeys, clarification that Diagram 5.1 was to be removed completely and along with other respondents highlighted that it needed to be made clearer that if an external wall of a relevant building complies with Diagram 4.5 in TBE, then the requirements of regulation 23(2) do not apply.
103. Those respondents not supporting the guidance gave reasons such as:
- The guidance on relevant buildings should include all those where people live and sleep including hotels, hostels and boarding houses;
 - The FBU could not support the guidance because the union’s representatives were not consulted by the authors. The FBU commented that all guidance should be discussed by a UK wide statutory stakeholder oversight body and called on the Westminster government and devolved administrations to form such a body and ensure FBU is well represented;
 - Others expressed their general disagreement with the proposal to ban combustible materials and the problems it will cause and belief in the alternative method of compliance via a BS8414 test and BR135 classification report;
 - Some expressed their belief that an holistic approach to fire safety by scrutiny by a competent fire engineer who can conduct a full fire risk assessment taking into account all measures in the building was more appropriate than the guidance proposed. A number of respondents highlighted as part of the risk assessment approach that a retrospective BS8414 test should be done to establish if the existing build up on a building is sufficiently safe or not;
 - One respondent felt the scope of the ban and consequently the guidance in TBE should include buildings where people sleep, including hotels, hostels and boarding houses. Also that relevant buildings should include buildings where the threshold height of 11m is established whether residential or non-residential or all buildings more than 3 storeys and all buildings with vulnerable occupants regardless of height;
 - The response from Kingspan acknowledged the introduction of BS8414 tests as an acceptable route to compliance for non-relevant buildings and the guidance on

AILOTs as a possible third route to compliance. They reiterated again their belief that BS8414 large scale testing should be the required route for all building types regardless of whether the components of the façade are limited combustibility or not. They disagreed with the approach under a material change of use of removing a whole façade to replace with A1 or A2 materials without assessment and due consideration of the façade system and overall fire strategy for the building, advocating BS8414 test to validate the performance of the existing façade.

The Department intends to proceed with the new guidance in the consultation version of TBE for 'relevant buildings' with the addition of a note clarifying that materials classed as A1 without testing are acceptable to be used in order to meet the requirement of new regulation 23(2).

Question E2. Do you agree with the guidance proposals regarding changes to external fire spread requirements in external walls which includes introduction of the alternative method of compliance via a BS8414 test and BR135 classification report for non-relevant buildings?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
E2	40	31	78%	2	5%	7	17%

104. The consultation proposed amendments to the existing guidance in TBE on external fire spread requirements for non-relevant buildings. Included was the introduction of the BS8414 large scale test and BR 135 classification report route to compliance for these non-relevant buildings.
105. The majority of responses (78%) indicated support for the inclusion of the BS8414 test/BR135 compliance route. The reasons included:
- District Councils felt there was no evidence or reasons to suggest this methodology should not be included as an alternative means of compliance for non-relevant buildings;
 - NHBC felt this was in line with ADB in England and welcomed the commonality;
 - One respondent felt the use of BS8414/BR135 was the best route to demonstrating compliance;
 - Two respondents wanted this alternative method restricted to non-relevant buildings;
 - RICS supported the inclusion, CABE supported it but wanted it restricted to non-relevant buildings;
106. A large number of respondents answered yes to this question but wanted this methodology extended to all buildings and not just non-relevant buildings:
- Kingspan, Energystore, UK phenolic foam insulation, EPIC, Insulation manufacturing association and the NIAI, BBSA agreed with the inclusion of large scale tests but believed it should be extended to include 'relevant buildings'. Some of these manufacturers went further and felt large scale testing should be mandatory for all buildings over 18m regardless of the performance of individual components as they have evidence of assemblies consisting of such products failing the BS8414 test. They argued this demonstrated the robustness of large scale testing and that small scale test results of individual components cannot be relied upon for complex multi-component facade assemblies and does not guarantee a fire safe building.
107. Those respondents answering 'no' to this question did so for reasons including:
- The FBU acknowledged full scale tests were clearly superior to desk top studies but pointed to the concerns raised by Barbara Lane at the Grenfell Tower Inquiry and encouraged NI Executive to take a precautionary approach and avoid alternative routes for compliance until the matter is resolved;
 - Rockwool did not agree with providing guidance in TBE for the alternative method of BS8414 and BR135 to demonstrate compliance with external fire spread requirements. They argued only non-combustible materials should be provided in TBE as a route to compliance. They commented that the BS8414/BR135 test and classification procedure has critical shortcomings and the persisting shortfalls in design competence and workmanship on construction sites which necessitates the imposition of a 'ban' on the use of combustible materials on all high rise and

high risk buildings. They believe the BS8414/BR135 process is fundamentally flawed and underestimates the risks of combustible materials on buildings. They argue the BS8414 test does not replicate real-life construction or real life conditions and worry about the competence and workmanship shortfalls in the construction industry shared by Judith Hackitt. They argued prescriptive regulation is the most effective way to ensure a baseline of fire safety. It makes it straightforward for the construction supply chain to understand and comply with.

108. An alternative route to compliance for existing regulation in relation to external fire spread requirements is for the external wall system as a whole to pass a large scale BS8414 'Fire performance of external cladding systems' test and performance criteria as set in BR135 'Fire performance of external thermal insulation for walls of multi-storey buildings'. Combustible materials can achieve compliance with external fire spread requirements via this route when used in combination with other suitable materials as part of an external wall system.
109. Part of the proposals for the amendment here included inserting into guidance the option of using BS8414 testing/ BR135 compliance as an alternative to the individual performance classification route for non-relevant buildings with a storey over 18m.
110. Post consultation, the Department became aware of two issues of concern relating to the BS8414 test and its application:
 1. There is a concern that what is built on site rarely replicates what is tested in the BS8414 test. This can be due to many reasons but normally involves poor workmanship or incompetence.
 2. Revelations at the Public Inquiry into Grenfell in early 2021 alleged that certain product manufacturers have manipulated the BS8414 test in order for the system (which incorporates their product) to pass the performance criteria of BR135. This has enabled the continued use of these products which would otherwise not be acceptable for use. One manufacturer effectively rigged a test with undeclared non-combustible products in order for their product to pass the test as part of that system. This effectively kept its product on the market. Another manufacturer sold a combustible product which had been chemically altered and part of failed fire tests on the pretence it was the same product prior to the alteration, which was part of a successful test.

The Department has taken note of the developments at the Grenfell Public Inquiry and in Scotland where reference to BS8414/BR135 test and criteria as an alternative route to compliance with external fire spread requirements has been withdrawn. There is sufficient doubt over the potential for abuse and manipulation of the BS8414 test to justify waiting to see recommendations from the Grenfell Public Inquiry in relation to the future use of the test. At this stage we feel it prudent not to reference this alternative route to compliance in the official technical guidance to external fire spread requirements.

The guidance will require materials and products used in external walls in non-relevant buildings over 18m to achieve a limited combustibility performance classification. 18m as opposed to 11m will remain the threshold for the A2- s3, d2 performance class in line with England and Wales.

Question E3. Do you agree that TBE uses only the European classifications for the specification for reaction to fire performance of external surfaces of walls for all buildings?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
E3	40	32	80%	1	3%	7	17%

111. The proposal is to reference a single classification system for the reaction to fire performance classifications for external surfaces of external walls to make it more straightforward for users to understand. The European classification system classifies construction products from Class A to Class E using a series of small scale fire tests.
112. The majority of consultation respondents supported the proposal giving reasons including:
- The classification system brings NI into line with other UK regions, provides simplicity and consistency;
 - This will make TBE easier to understand;
 - The European classification system is updated whereas the national classification system is not with national classifications being based on tests 20+ years out of date;
 - not aware of a more relevant system for classifying reaction to fire characteristics of materials;
 - keeping the classifications simple will add to clarity and reduce likelihood of wrong materials being used;
 - Some welcomed the removal of reference to Class 0 national classification which has been widely criticised as inappropriate for external cladding and has been manipulated or claimed by manufacturers in UK to be equivalent to more onerous European classifications.
113. Some expressed concern on the year cited of BS EN 13501-1 2018 within the prescriptive regulation. So if a material was classed to the preceding standard of BS EN 13501-1: 2007, would this be acceptable or not.
114. Rockwool commented they wished to see the single classification system to be referenced throughout TBE and not only in the sections relating to external surfaces of walls.

The guidance in TBE will be amended to provide external surface performance classifications for walls in European classifications only. The direction of travel in GB regions is for materials/products to demonstrate a European performance class. The single system of classification for fire performance will aid clarity and avoid confusion. It will align TBE with the direction of travel in other jurisdictions as the international norm.

Question E4. Do you agree with the new guidance in relation to external fire spread considerations in relation to all buildings irrespective of height or use?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
E4	40	19	48%	12	30%	9	22%

115. Regulation 36 ‘External fire spread’ in Part E (Fire safety) of the building regulations applies to buildings of any height. The proposal in the amended guidance in TBE was to clarify that consideration of external fire spread requirements should be done by designers for compliance with regulation 36 even for buildings below 18m.

116. Respondents giving support to this proposal gave comments including:

- FBU felt combustible materials in external walls should be prohibited at any height;
- NHBC noted the consistency this would bring with other UK regions;
- RSUA felt it was a useful addition to clarify the regulation;
- Kingspan agreed that consideration of fire performance should be considered for all buildings regardless of height or purpose;
- EPIC agreed but feared the introduction of the ban would lead many designers/insurers to apply the prescriptive regulation to all buildings irrespective of height and use;
- RICS welcomed the guidance but questioned how this consideration can be demonstrated and enforced;
- One District Council supported the new guidance.

117. Those answering ‘no’ to the question gave reasons including:

- 8 District Councils thought the guidance for low rise non-relevant buildings was inadequate and that the industry and enforcers have no understanding of what is deemed adequate to resist the spread of fire without detailed performance guidance being given for these buildings (in the same way performance guidance is given for buildings over 18m). The Councils also highlighted a potential contradiction in the proposed guidance between the specification for materials/products and the surface specification for external walls established in the guidance.
- NIFRS pointed out confusion between this new proposed paragraph of guidance with the stipulation in new Table 5.1A where ‘no minimum performance provisions’ are specified for certain buildings. They said no enforcer will be able to establish if paragraph 5.4A has been complied with. Like the District Councils, NIFRS called for specific performance criteria to assess against for low rise buildings. NIFRS also highlighted a concern with provisions for buildings below 18m in height given in Table 5.1A, questioning why assembly and recreation buildings of 18m or less have a higher requirement than those for other buildings up to 18m such as hospitals, care homes, hostels, hotels and guesthouses. Also no minimum performance is specified between 10m and 18m for assembly and recreation buildings below 18m. They wished to see the lower level of 11m specified for no provisions as opposed to 18m to mirror the upper height limit of traditional external fire-fighting;
- CABE and fire safety solutions felt there was insufficient guidance on this matter;
- Energystore were concerned the wording could lead designers to require non-combustible materials below 18m and requested the wording be clear.

118. A number of respondents wished to see specific performance based classifications for materials to be used on external walls of these buildings (i.e. top storey less than 18m in height) in the same way performance classifications are given for buildings with a storey over 18m.
119. Scotland are the only region which provide performance classifications for insulation and cladding use in external walls below 18m. Effective from 1 October 2019, external wall cladding and insulation material exposed in the cavity in Scotland is to be A1 or A2 European Classification for all buildings with a storey height over 11m above ground. For hospitals, residential care buildings and entertainment and assembly buildings, these standards for cladding and insulation apply to buildings of any height. Some exceptions for these types of buildings are allowed if a small total storey area is involved.
120. For buildings with a top storey less than 18m, statistics indicate the risk to life and injury due to fire is greatly reduced compared to buildings with a storey over 18m. Department for Levelling Up, Housing and Communities (DLUHC) [previously the Ministry for Housing, Communities and Local Government (MHCLG)] colleagues have indicated specific performance classes for materials used in buildings 11m to 18m will be provided in a forthcoming revised ADB.
121. The performance classes for materials and products such as insulation and fillers (such as core fillers of metal composite panels) are not to be confused with external surface performance classes which will be given for low rise buildings in the amended Table 5.1A of Technical Booklet E.
122. Separately and given the perception among some post Grenfell that external fire spread requirements only apply to buildings over 18m, the Department feels clarification is required to advise designers that the requirement of Regulation 36 'External fire spread' applies to all buildings irrespective of height.

Due to consultation response concerns from both District Councils and Fire and Rescue Service regarding the proposed new guidance clarifying that regulation 36 applies to buildings of all heights and not just those over 18m, it is advisable to delay such guidance until meaningful performance classifications can be given to support those responsible for enforcement of the guidance.

DLUHC has indicated that new guidance on performance classifications for materials used in external walls will be provided for buildings between 11m and 18m in a revised ADB in the near future. The Department will await that guidance for consideration for inclusion in TBE.

Question E5. Do you agree with the guidance proposals in relation to Assessments in lieu of tests in the consultation version Technical Booklet E?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
E5	40	27	68%	4	10%	9	22%

123. Assessments in lieu of tests (Ailots) are a third route to compliance in relation to external fire spread requirements. Dame Judith Hackitt has been critical of the use of Ailots and recommended limiting their use. The proposed new guidance in TBE is aimed at ensuring they are only used where appropriate based on relevant test evidence and carried out by organisations with the necessary expertise and competence.
124. A majority of respondents supported the introduction of the new guidance on Assessments in lieu of tests giving comments but also expressing some reservations including:
- Advice on these assessments and the competency of those carrying out these tests was welcomed however caution was expressed about the extent to which these assessments should be allowed. District Councils in recognising they would not be allowed on ‘relevant buildings’ suggested they should also not be allowed for certain other situations e.g. in buildings with a sleeping risk. They highlighted the reliance on the expertise of the assessor and the degree of subjectivity involved;
 - Other respondents pointed to other countries using this approach;
 - Kingspan and others supported the use of Ailots provided they were evidence based on a large scale test and conform to standards such as BS EN 15725 or BS 9414 and also carried out by notified bodies or UKAS accredited labs;
 - One respondent felt they should be partially used and based on recent testing but also felt they were needed because testing cannot possibly be used for every given scenario of assemblies;
 - Mid Ulster Council agreed with the proposed guidance but expressed a concern with availability of organisations with the necessary expertise within NI.
125. Those not supporting the new guidance made comments including:
- Without reason simply saying Ailots should not be allowed;
 - The FBU did not support Ailots for assessing the composition of external walls in most cases and advised governments to rule them out;
 - The RSUA acknowledged support for Ailots but advised the assessment and those who carry them out need to be considered. They highlighted that testing of every product for every situation during a build is not practical and that judgement calls are done every day on a building site and that the proposed wording insisting these assessments were carried out by a notified body of UKAS accreditation was impractical. They pointed to BS 9414 which indicates qualified and experienced people could carry them out as opposed to notified bodies;
 - Rockwool did not agree with the new guidance on Ailots suggesting they should be banned for cladding systems, not just restricted for high-rise buildings. They suggested BS8414 is an unsafe and unsuitable test standard on its own right and upon which to base an Ailot. For applications other than building facades they welcomed the new guidance that they are carried out using relevant test evidence;
 - NHBC also highlighted that the guidance needed to be clearer on who are expected to be able to perform these assessments, in that the individual as well as the organisation needed to be suitably qualified and experienced. They

questioned how the competency of the individual is to be assessed and the competence of the Building Control body assessing the assessment. Regarding BS EN 15725:2010, they suggested the competent people will need to be employed by the laboratories where the fire tests are carried out which will limit the scope to 2 or 3 institutions in the UK. This will lead to assessments from laboratories in other countries whose credentials they suggested would be questionable and they suggested clearer guidance on acceptable world bodies would be welcomed.

126. The response from UKAS was related specifically to this item. They expressed concern with the impact of the wording to the new guidance on Ailots. They pointed out that after 31 December 2020, UK conformity bodies will no longer be recognised as 'notified bodies' and they proposed alternative wording of 'UKAS accredited certification bodies'.

The new guidance in TBE in relation to Ailots does clarify that these assessments should only be based on relevant test data and carried out by appropriate organisations with the necessary expertise and competence.

An adjustment to the wording regarding notified bodies to recognise the contribution from UKAS has also been incorporated. The guidance now mentions 'notified bodies' under the European Construction Products Regulation and UK Approved Bodies under the UK Market Conformity Assessment Bodies (UKMCAB) as organisations with the necessary expertise to carry out tests and assessments.

Question G1. Please set out any additional comments you have below.

127. District Councils took the opportunity to reiterate again their welcome to the proposals to review and update guidance and regulations pertaining to external fire spread. They also expressed concern that the guidance concentrates on buildings higher than 18m with the consultation reaffirming the requirement for adequate resistance to fire spread on all buildings of any height. Their view is the lack of specific performance based guidance for low rise buildings will lead to confusion and inconsistency across NI on how to comply.

Some Councils highlighted the issue of the 'coanda effect'. They expressed concern that Regulations exist to deal with internal fire spread and external fire spread issues, however, there is no regulation or guidance to address the potential spread of fire from one compartment to another via an external route. E.g. windows of no required fire resistance or other unprotected openings can provide a route for fire from one dwelling to another in an otherwise compliant design in relation to Regulation 35 (Internal fire spread) and Regulation 36 (External fire spread).

The Department recognises risk in buildings depends on many factors and not just height alone. Future amendments to TBE will consider guidance for low rise buildings in particular performance classifications for materials to be used in external walls. The observation on potential fire spread from compartment to compartment via an external route is noted for future consideration.

128. NIFRS welcomed the opportunity to provide feedback and recognised considerable other amendments will be proposed in due course. They suggest that any new version of TBE would be greatly enhanced if it had an index to make the document easier to navigate as is the case in England's equivalent ADB.

Consideration of an index is an issue for a consolidated TBE in the future. Other amendments to Part E and TBE are planned.

129. MPANI supported the vast majority of proposals in the consultation. They commented that modern building construction had introduced large quantities of combustible material into the built environment by way of structure, cladding and insulation. Fire safety was traditionally achieved through good performing materials such as bricks, concrete and mortar. They highlighted the term 'limited combustibility' as being unhelpful and at odds with international best practice. They advocated that the use of combustible materials especially in key vulnerable parts of buildings be illegal and that testing regimes require proof of non-combustibility rather than accepting limited combustibility in certain circumstances.

Limited combustibility is a recognised class of performance for materials/products under the European classification system for 'reaction to fire'. The Department's view is the proposed regulation will ensure the use of combustible materials in external walls and specified attachments of high risk 'relevant buildings' will be illegal.

130. A response from an individual requested that Building Regulations and technical guidance booklets be written in a way that is plain, simple and easily understood and that tables and diagrams are clear and straightforward.

Due to the complexity of the issues involved, it is not always possible to write technical regulations or guidance in a simplistic way. Diagrams and Tables are provided as aids to understanding the text.

131. UK Finance admitted they were not specialised in building regulations and fire safety and expressed their views in their desire to see a broadly consistent approach across the UK for requirements/standards.

The proposed new regulation and guidance changes replicate what has been introduced in England and Wales already and similar requirements in Scotland. The Department is conscious of some in the industry working across various regions and hence welcomes a consistent approach also.

132. The Construction Employers Federation (CEF) were supportive of the intent of the changes to the Building Regulations. They expressed concern on the timescale for the introduction of the revised regulations. Given the significant challenges facing the industry, they asked for additional detail as to when the changes are likely to take place. They suggested they come into effect approximately 6 months after the introduction of the Statutory Rule. They argued this would enable the industry to adjust to the changes and allow tendering processes to adjust price wise. They mentioned the uncertainty of Brexit also and uncertainties with respect to materials supply and costings.

The Department intends introducing these changes within as short a timeframe as reasonably possible after publication of the Statutory Rule. With identical changes in England and Wales and similar changes in Scotland already implemented, the industry has been aware for some time of the intended changes, particularly since the consultation here ended 15 months ago.

133. The Royal Town Planning Institute (RTPI) commented that developers will seek to agree materials that are both acceptable to the planning authority in terms of appearance and to building control in terms of safety and performance. Materials approved for use at planning stage may not be acceptable by building control, new materials may be recommended at building control stage which the developer has to then check are acceptable with the existing planning permission. This can be a source of delay and wasted resources. RTPI suggested this can be avoided if pre application procedures are followed to agree materials to be used (an approach already recommended as best practice in current government planning guidance and policy). They also advised that consideration should be given to the inclusion of a Fire Statement as part of any applicant's Design and Access Statement submitted when seeking planning permission. They also suggested the option of Fire and Rescue Service as statutory consultees at pre and post application stages of the planning process for developments in scope.

From 1 August 2021 in England, it is a requirement to consider measures for fire safety matters as they relate to land use at the planning stage for schemes involving a relevant high rise residential building. As part of the reform to the building safety regulatory system, a planning gateway 1 requires the developer to submit a 'fire statement' setting out fire safety considerations specific to the development with a relevant application for planning permission for development which involves one or more relevant buildings. The change in England also establishes the Health and Safety Executive as a statutory consultee for relevant planning applications. The Department awaits how such changes may be implemented here.

134. The FBU commented the dangerous cladding on buildings across the UK was a major concern for residents and firefighters alike and urged governments to establish mechanisms where resident voices are heard by building owners/ local councils and other bodies. They reiterated their call for a statutory advisory body including trade unions to advise all governments on fire safety. Such a body would commission research, discuss major incidents, new materials and other risks to provide expert advice to Ministers. They argue this would be a considerable step in improving the current fire safety regime.

The developments in other jurisdictions particularly England with regard to a building safety programme and primary legislation of a Building Safety Bill, are aimed at addressing the long standing issues in the construction industry and building regulatory system. It remains to be seen how these issues are addressed at a local level.

135. NHBC called for consistency with other Building Regulation changes, that the changes should have clear transitional provisions to allow industry to plan and implement in a sensible way. They highlight some developments can be in planning for years with pre-commencement design and off site manufacture often commencing 12 months ahead of onsite construction. Some large complex developments may be under construction for several years. They concluded by saying a definition of building work commencement would assist industry in planning implementation of the changes.

As identical changes in England and Wales and similar changes in Scotland have already been implemented, the industry has been aware for some time of the intended changes, particularly since the consultation here ended 15 months ago. The Department intends implementing the changes as soon as reasonably possible.

136. RSUA commented that TBE should be published in a revised form containing the changes rather than having to read an addendum alongside the existing TBE. They suggest as a minimum it should be published in a digital format and cite as example the TGB published in ROI in 2020 which included a full list of amendments at the front as well as the new text being incorporated into the relevant sections. The RSUA also commented on the recent introduction of sprinkler provisions in blocks of flats in England at a reduced trigger height of 11m and say it is a missed opportunity for NI to have done a similar proposal. They wish for this issue to be addressed immediately. They also wish to see the diagrams in TBE to be developed and supplemented by additional diagrams reflecting multi storey nature of buildings impacted by the ban and various types of external wall situations (cavity, masonry, metal framing systems, rainscreen/cladding) along with various roof and balcony scenarios. They refer to mortgage companies refusing to mortgage properties and the impact this has on residents feeling unsafe in buildings which today meet building regulations/guidance. They believe it is the Department's responsibility to engage with insurers, lenders and banks to come to an understanding on risk and to avoid a knee jerk reaction that could leave homeowners stranded. They suggested this work needed to be done prior to the implementation of the changes.

There is a programme of changes planned for Part E and TBE over the coming few years. A new Regulation requiring sprinklers in blocks of flats over a certain height is one of those changes. It is hoped to issue a consolidated TBE with all the proposed changes in due course. For this amendment, the changes will be contained in an amendment booklet which will need to be read with the existing TBE.

Building regulations set minimum standards for life safety purposes. They do not consider measures to ensure property protection or business continuity for example. Insurers, lenders, banks who have always required higher standards of protection above and beyond building regulations standards are at liberty to do so for their reasons. It is not for the Department to interfere in relation to issues beyond our remit.

137. The Fuel Industry Association welcomed the consistency with regulations in England and that they would make compliance in NI more straightforward.

The changes will bring a consistent approach with the same requirements in England on this matter.

138. Kingspan believed any amendment to regulations should be evidence based and take account of the context which prevails in NI. They highlighted the different approaches in the UK regions with England and Wales taking the ban on combustible materials route whereas they viewed the Scottish approach as more balanced, allowing BS8414 tests. With regard to ROI, they referred to Building Standards publicly stating that a ban is not being considered. Kingspan reiterated its belief that BS8414 tests of all assemblies over 18m irrespective of materials is the best way to demonstrate building safety as evidence exists to show assemblies constructed of non-combustible materials have failed large scale fire tests. They wished to see large scale testing at the very least should remain as a valid means of providing evidence based compliance as it is in Scotland and most of Europe.

They said there is no indigenous manufacturers of non-combustible A1/A2 insulation on the island of Ireland, which will mean these products will be required to be imported from Europe. They said this will have a negative impact on local economies. They referred to the testing facility at Jordanstown and Carrickfergus run by Efectis (a testing expert) with multiple rigs for BS8414 testing and the potential for this area to become a fire testing hub of world renowned.

They mentioned the ban in England is under review and think NI should adopt the more balanced approach like Scotland. They referred to a stakeholder review into the ban commissioned by MHCLG which indicated 97% reported technical specification problems, 80% felt detailing had become more complex, 80% reported products normally available are no longer and alternatives are hard to find, 53% reported impacts on delivery times, 33% believed the ban had increased costs by 15%. They concluded by saying a prescriptive ban is hard to revert from and Kingspan believes in making buildings safer but this must be evidence based.

Scotland withdrew reference to the alternative approach of BS8414 testing in April 2021 as an interim measure. They did do based on concerns regarding the test, emanating from evidence at the Grenfell Public Inquiry. At the Inquiry, it was alleged that abuse and manipulation of the test by some product manufacturers had occurred in order to guarantee their product place on the market. The Department agrees with Scotland in not offering the BS8414 test as a route to compliance in the official government technical guidance for now. The Department will review this issue once any recommendations in relation to the test from Phase 2 of the Public Inquiry are published and considered.

For 'relevant buildings' which the new prescriptive regulation will apply to, it is estimated only 3 buildings per year will be affected by the change. This is minimal impact on the industry against the benefit of clarity for designers, procurers, enforcers alike on what materials can and cannot be used on a building. The Department awaits outcomes from the review of the

ban in England which concluded its consultation in May 2020. Any developments from that review will be considered for future implementation here.

139. The NIAI cited the situation in the UK regions and ROI and the unavailability of A1/A2 manufactured products on the island of Ireland. They referred to the testing facility in NI (Efectis) and the potential for economic spin off through testing for insulation manufacturers on the island.

The estimated impact of the new regulation implementing the ban on 'relevant buildings' only, will affect 3 buildings per year. For these buildings, a BS8414 test alternative route to compliance will be unacceptable. Until the Grenfell Public Inquiry reports in relation to the use of BS8414 tests, the Department holds the view not to include BS8414 testing as a route to compliance in the official technical guidance in TBE for other non-relevant buildings. This does not preclude the use of the test as a route to compliance which sits outside the guidance. Therefore, the reduction in BS8414 tests due to these changes should be minimal for any test house carrying out such tests.

140. Engineered Panels in Construction (EPIC) commented on the serious implications of banning proven products which can help with dealing with the climate emergency, help refurbishment and reduce fuel poverty. They highlighted concern that a ban is over simplification of a complex issue and does not offer the best solution whilst leading to unintended consequences such that the ban in England has given rise to. They mentioned the confusion in the insurance sector leading to difficulties for PI insurance. They referenced in their view the better approach of Scotland allowing large scale testing and the impact on global climate change to have highly energy efficient buildings.

The new regulation will require the use of A1/A2 materials on relevant buildings only which generally come in a thicker form than combustible types of insulation. The very limited ban proposed for here will have minimal impact on manufacturers of insulation. Scotland has removed reference to large scale testing as an alternative approach.

141. The Insulation Manufacturing Association (IMA) commented that the ban would do nothing to enhance fire safety without a thorough compliance regime. They said there was currently non-compliance because of the lack of inspections and stressed the real issue was to focus on how regulations are enforced and penalties applied when non-compliance occurs. They said a ban would introduce complexities and bring unintended consequences sending out mixed messages to insurers and mortgage providers. They cited no evidence of out of control fires on buildings with systems that comply with BS8414 testing. They referred to the Tenos report that explains BS8414 is an internationally recognised test for external fire spread and that it is more onerous than the NFPA 285 test due to the higher fire load involved.

Enforcement of building regulation requirements here is done solely by the District Council Building Control departments. With limited resources, their role is to ensure compliance with the building regulations as far as reasonably practical through plans inspections and site inspections based on a risk assessment approach. The District Councils in their consultation responses have supported the proposed changes including the new prescriptive regulation implementing the ban.

The Department accepts the BS8414 test as a robust system test, the best of its type around the world. The main concern is its alleged abuse and manipulation by product manufacturers. Until the Public Inquiry reports in relation to the future use of the test, it would be inappropriate to include reference to it in official technical guidance.

142. UK Phenolic Foam Manufacturers Association (part of the European Phenolic Foam Association) stressed that their members wished to see regulations evidence based and to take account of the context in Northern Ireland. They highlighted the more balanced approach in Scotland allowing the continued use of BS8414 tested assemblies as opposed to the ban approach in England and Wales. They also referred to ROI saying they are not currently considering a ban. They would prefer to see all assemblies tested to BS8414 irrespective of materials proposed as evidence exists that assemblies constructed of non-combustible materials have failed large scale fire tests. They highlighted the timeline and costs involved in large scale testing and that is it a robust and holistic method of demonstrating fire safety for the whole system and at the very least should remain as an option to compliance.

They commented that A1/A2 insulation products are not manufactured on the island of Ireland requiring them to be imported. This would result in negative impact on local economies, result in thicker constructions and push the industry away from a fabric first approach to energy conservation. They highlighted the BS8414 testing capacity at Jordanstown and Carrickfergus and the opportunity this represents for NI. Lastly they cited the survey carried out in England into the ban introduced there and the problems in the construction industry it has caused, including 97% reported technical specification problems, 80% felt detailing has become more complex, 80% reported products normally available are no longer and alternatives are hard to find, 53% reported impacts on delivery times, 33% believe the ban has increased costs by 15%.

Scotland withdrew reference to the alternative approach of BS8414 testing in April 2021 as an interim measure. They did so based on concerns regarding the test, emanating from evidence at the Grenfell Public Inquiry. At the Inquiry, it was alleged that abuse and manipulation of the test by some product manufacturers had occurred in order to guarantee their product place on the market. The Department agrees with Scotland in not offering the BS8414 test as a route to compliance in the official government technical guidance for now. The Department will review this issue once any recommendations in relation to the test from Phase 2 of the Public Inquiry are published and considered.

For 'relevant buildings' which the new prescriptive regulation will apply to, it is estimated only 3 buildings per year will be affected by the change. This is a minimal impact on the industry against the benefit of clarity for designers, procurers, enforcers alike on what materials can and cannot be used on a building.

As the BS8414 test route will be acceptable as a route to compliance which sits outside the official technical guidance, the reduction in BS8414 tests due to these changes should be minimal for any test house carrying out such tests.

143. RICS commented that they wished to see consistency on fire safety regulations across the UK and urged harmonisation and commended the Department that these changes will work towards that goal.

These changes should promote a consistent approach for industry to follow in line with identical changes in England and Wales and similar changes in Scotland.

144. CABE agreed with the general proposals and wished to see new buildings over 11m taken into scope. They also urged the Department to take forward a full review of TBE as a matter of urgency.

This change proposes aligning with England and Wales requirements at a height threshold of 18m. The height threshold will be kept under review for any future change potentially to 11m where relevant research or information becomes available.

There is a programme of changes planned for Part E and TBE over the coming few years. These changes will involve new regulations and a complete review of the guidance in TBE. It is hoped to issue a consolidated TBE with all the proposed changes in due course.

145. Fire Risk Solutions NI Ltd agreed with the general proposals and wished to see new buildings over 11m taken into scope. They also urged the Department to take forward a full review of TBE as a matter of urgency.

This change proposes aligning with England and Wales requirements at a height threshold of 18m. The height threshold will be kept under review for any future change potentially to 11m where relevant research or information becomes available.

There is a programme of changes planned for Part E and TBE over the coming few years. These changes will involve new regulations and a complete review of the guidance in TBE. It is hoped to issue a consolidated TBE with all the proposed changes in due course.

146. The Association of British Insurers (ABI) responded to the consultation in a letter form. They pointed out that they had responded to the consultation on the review of the ban in England and had also submitted a submission to MHCLG (now DLUHC) on the draft Building Safety Bill for England. Their responses were limited to the nature of the ban, height threshold and scope of buildings covered by the ban.

They strongly agreed that combustible materials should be banned through law. They disagreed with the height threshold of 18m and argued that the regime should be based on risk and to consider other factors such as vulnerable occupants in schools, hospitals, care homes and social housing along with commercial buildings with a sleeping risk such as hotels, hostels and student accommodation. They said combustible cladding should not be used on any of these buildings regardless of height. If a height is to be chosen, they preferred the 11m threshold based on the limitations of fire-fighting equipment above this height.

They strongly supported the inclusion of hotels, hostels and boarding houses in the definition of relevant building. They highlighted the unfamiliar nature for occupants of such premises and the vulnerability (elderly or disabled) these occupants face in evacuating. Skeleton staff overnight in these premises was also highlighted.

Their submission also called for mandatory installation of sprinklers in certain building types and the installation of high integrity fire alarms to reduce the high level of false alarms.

The Department recognises risk in buildings depends on many factors and not just height alone. This change proposes aligning with England and Wales requirements at a height threshold of 18m and not including premises such as hotels, hostels and boarding houses. Both the height threshold and scope of buildings applicable will be kept under review. Any future change potentially to 11m or inclusion of hotels, hostels and boarding houses will be

based on further relevant research or information becoming available to support such a change.

A planned review of Part E to incorporate a new regulation to require sprinklers in certain buildings is progressing.

147. Keystone Group commented that they supported any effort to reduce the chance of a repeat scenario such as Grenfell. They welcomed the exemption list as their product focuses very much on the thermal benefits and improved fabric of a building. They have developed a product for non-combustible cavity trays.

In replicating the 'ban' introduced in England and Wales, the exemption list for this change is the same as that implemented in those jurisdictions. This provides a consistency for industry. A review of this list will occur as evidence becomes available through research or other information to justify inclusion on the list.

Summary of Responses and Department intended actions to Consultation Questions – Radon

148. The Department’s intended actions are shown in *italics* for ease of reading.

C1. Do you agree with the proposal to update the definition of “radon affected area” to reference the PHE publication ‘Radon in Northern Ireland: Indicative Atlas’ of 2015?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
C1	40	23	58%	0	0%	17	42%

149. Referencing Public Health England ‘Radon in Northern Ireland: Indicative Atlas’ will mean a radon affected area in NI can only be established through this publication which is a document based on the most up to date research into radon levels in NI.

150. Of the 40 responses completing the questionnaire approximately half did not offer a view. Of those who completed this question, all agreed with the proposal giving comments including:

- District Councils welcomed the amendment but wanted a footnote added to reference any future updated maps should they become available so that radon measures are always based on the latest radon risk without having to wait for changes to Regulation/guidance in building regulations. They highlight a delay in referencing the 2015 publication which could have led to some dwellings in that time period being omitted from radon protective measures which could result in additional cancers as a result of the delay. The Councils also asked for consideration be given to extending the requirement beyond dwellings to other buildings such as schools, hospitals, residential care homes. One Council suggested citing ‘Public Health England’ or its replacement ‘The National Institute for Health Protection (NIHP)’;
- One respondent thought the date should be removed of 2015 and just cite the version current at the time of deposit of plans;
- The FBU were disappointed with the announcement to close Public Health England and urged the NI government to seek clarity on how future updates to these publications will be managed;
- Organisations such as NHBC and CABE welcomed the reference to the up to date maps and the clarity it provides.

All the responses were in support of the proposal. The Department considered that whilst the footnote suggestion might appear to future proof later Radon Atlas Map updates, this would suggest application of an updated version without considering any impact to the dwelling construction Industry – for example the 2015 update Radon Atlas Maps for NI increased the number of dwellings in potential ‘radon affected areas’ from 90,000 to 155,000. This necessitated the provision of an RIA which suggested a projected cost to the construction Industry, by referencing the updated 2015 Radon Atlas Maps.

Having considered the consultation responses, the Department will continue to liaise with the Industrial Pollution and Radiochemical Inspectorate (IPRI) NIEA, with regard to the most up to date edition of the Northern Ireland Radon Atlas Maps, and review where necessary for future impacts on the Dwelling construction industry.

C2. Do you agree with the inclusion of BR211 in the draft Technical Booklet C as the guidance to follow in relation to the measures for preventing or limiting the ingress of radon in new dwellings?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
C2	40	24	60%	0	0%	16	40%

149. Regarding the protection measures necessary, reference in the guidance in Technical Booklet C will be made to BR211 'Radon guidance on protective measures for new buildings' which incorporates Northern Ireland Indicative atlas maps for assessing the need and level of protection measures for radon.
150. Of those respondents who completed this question, all were in support of the proposal with none opposing the proposal. The respondents made comments including:
- District Councils welcomed the reference to BR211 but pointed out that the guidance in BR211 applies to all buildings and not just dwellings and urged the Department to consider expanding the requirement of regulation 26(2) to all buildings and not just dwellings. They also requested reference is made to GBG 73, GBG 74 and BGB 75 (all 2015) in the guidance as these were intended to be companion references to BR 211. District Councils also asked for the Department to clarify the difference between a radon membrane and a radon barrier and in what circumstances they each apply;
 - The FBU commented that this should be subject to academics and health professionals who are expert in radon management;
 - NHBC and CABE welcomed the up to date guidance ensuring protective measures are properly targeted;
 - Lisburn & Castlereagh Council proposed regulation 26(2) is extended beyond dwellings to include purpose group 2 buildings used as living accommodation and suggest references to dwellings should be changed to dwellings and buildings containing rooms for residential purposes.

All the responses were in support of the proposal. The Department is aware that PHE and previous HPA Radon Atlas Map reports for NI, identify and map potential 'radon affected areas' based on the radon measurements taken from more than 23,000 homes. Subsequently the Department's radon policy protective measures have been based on the Atlas Maps, and therefore targeted to dwellings – the only building measurement/dataset to inform the Maps. The Ionising Radiation Regulations (NI) establish the measurement of radon for non-domestic buildings (covering those building types highlighted by the District Councils), with these regulations enforced by HSENI covering safety inspection, continuing cyclical measurement, and protective measures for buildings other than dwellings.

NIBRAC were informed on the two separate regulatory systems that exist in Northern Ireland, with dwellings being enforced by Building Control, and workplaces being enforced by HSENI.

Having considered the consultation responses, the Department will continue to set requirements for radon protective measures, to dwellings in Radon affected areas – scientifically targeted within the NI Radon Atlas Maps. The Department will continue to support/out-reference to the Ionising Radiation Regulations (NI) for non-domestic buildings radon guidance.

C3. Do you agree with the citing of BR211 in the draft Technical Booklet C as the guidance to follow in relation to the measures needed in relation to preventing or limiting the ingress of radon for extensions and alterations to existing dwellings or to buildings converted to a dwelling through a material change of use?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
C3	40	22	55%	0	0%	18	45%

151. The proposal is to reference BR211 in Technical Booklet C as the appropriate guidance to follow when a dwelling undergoes an extension, an alteration or a dwelling is created through a material change of use. Existing references to GBG 73 (2008) and BR 267 (2008) will be deleted.

152. Once again, all respondents who answered the question were in support of the proposal. No respondent did not support the proposal. Comments from those in support included:

- District Councils again reiterated the same responses as they did to question C2. They expressed the view that the requirement should be applicable to non-domestic buildings for extensions, alterations and changes of use and that BR211 publication referred to all buildings. Belfast Council felt the GBG 73 and GBG 75 were more practical guides but that BR211 provided comprehensive guidance for all types of building work and material changes of use. Another Council thought reference to GBG 73, GBG 74 and GBG 75 were companion documents to BR 211 and should be cited. Mid Ulster District Council agreed with the referencing of BR211 for extensions, alterations and material changes of use;
- One respondent felt greater detail was required for alterations to dwellings and dwellings created as a result of a material change of use.
- NHBC welcomed the citing of BR211 for alterations, extensions, material changes of use as a consistent approach.

All the responses were in support of the proposal. The Department is aware that the NI radon Atlas Maps are informed by dwellings analysis only. The Department references the Ionising Radiation Regulations (NI) that already regulate, inspect and enforce radon protection in workplaces. The Department is aware that BR211 radon protection measures guidance, is limited to dwelling size properties with domestic type heating and ventilation systems. The Department has made specific reference to the 2015 Edition of BR211, as this is the first iteration of this guidance document to include radon Atlas Maps specifically for NI. Previous iterations of BR211 only included England, Wales and Scotland mapping. In regard to the companion guides, BR211 is the comprehensive consolidated guidance document for all these companion guides.

NIBRAC were informed on the scope of BR211 radon protective measure guidance.

Having considered the consultation responses, the Department will cite the new 2015 Edition of BR211 within the amendment to Technical Booklet C guidance, as this is the first iteration of this BR document to include Radon Atlas Maps specific to Northern Ireland.

C4. Do you agree with the use of site specific radon risk reports in BR211 for new development sites or for existing dwellings with a postcode, as an optional measure to take that may allow a lower level of protection than would otherwise be required?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
		Count	Percentage	Count	Percentage	Count	Percentage
C4	40	20	50%	2	5%	18	45%

153. BR211 suggests the use of site specific radon risk reports for new developments or for existing dwellings with a postcode as an optional measure to take in a radon affected area which may allow a lower level of protection than would otherwise be required.

154. Of those who answered this question, a majority of respondents supported the proposal with comments including:

- District Councils made the point that a report like this should be submitted to the Council at the earliest opportunity and before work commences. One Council commented that this should be required through Building Regulations guidance. They highlighted the advantages of this option where installation of protective measures may be challenging e.g. change of use situations, extensions, alterations;
- NHBC welcomed this as it was consistent with the position in England/Wales;
- RSUA mirrored what the Councils said in that the report should be submitted to Building Control and be part of the handover information provided to the home owner;
- Energystore supported the use of site specific reports and the lesser measures if indicated through their use as opposed to the measures established through use of the 1km square grid method;
- CABE supported the option of site specific radon risk reports;
- Mid Ulster Council highlighted that the site specific risk report may indicate a higher level of measures necessary than those otherwise indicated.

155. Two District Councils answered 'no' to the question:

- Newry and Mourne District Council welcomed the use of site-specific radon risk reports if free access is provided to GIS site specific postcode level risk report data and GIS site specific 'GeoReport' radon risk reports as is the case for Councils in England. Without this access they argue they cannot make informed assessment of such reports and hence risk approach should not be adopted;
- Ards and North Down Council suggested a copy of the report would need submitted to the Council before work commences on site to avoid complications. They highlighted that this two-level approach may cause problems in conveyancing and property values.

A majority of those who responded were in favour of the option of site-specific radon risk reports. As identified in the accompanying RIA – 'Northern Ireland is not in the same position as England with (a) Local Authorities free licensed access to GIS site-specific postcode level risk report data, and (b) GIS site specific 'GeoReport' radon risk reports are currently not available as standard to Northern Ireland.' The GIS postcode level reporting free access provision for England Local Authorities was only established due to their legal obligations to comply with Conveyancing Law reporting.

The use of GIS site-specific radon risk reports, are an optional measure or alternative to radon indicative Atlas Maps reference. Nonetheless, whatever approach the person chooses to use to inform their dwelling radon protective measures, the Building Regulations (NI) 2012 regulation 9 procedural requirements within Schedule 3 to Part A 'Giving of notice and deposit of plans' Rule F: 'Additional requirements' item 5 particulars of 'measures for the purpose of regulation 26 in Part C' will continue to apply. NIBRAC were informed on free licensed access to GIS site-specific postcode datasets (as a Local Authorities requirement of England Conveyancing), and the current unavailability of site specific GeoReports as a standard service for Northern Ireland.

Having considered the consultation responses, the Department will reference within the amendment to Technical Booklet C guidance, the use of site-specific radon risk reports (where available) as noted in BR211.

C5. Do you agree with the analysis/principal assumptions, costs and impacts set out in the Part C consultation stage RIA?

Question Number	Total Responding	Supporting the proposal		Opposing the proposal		No view	
C5	40	13	33%	2	5%	25	62%

156. Very few respondents answered this question with a majority of those who did supporting the proposed RIA.

- District Councils on the main agreed with the analysis and assumptions set out in the RIA. Mid Ulster Council were in general agreement however felt the assumptions of the costs for the provision of the necessary protection in new dwellings and existing scenarios appeared low.

157. The two respondents who did not agree with the RIA:

- The FBU felt the impact assessment focused on costs to industry and employers and felt it needed to be wider to analyse the social costs and benefits;
- The RSUA believed comparing the housing market in NI with that in England was flawed and that use of local Building Control statistics for starts and completions would be a better measure of impact in terms of numbers. They point out that radon protection measures in houses in NI are designed and detailed by the architect, not a structural engineer. Architects are not considered as a party who would be impacted by the changes. They claim upskilling and accessing data will increase costs in architectural practices disproportionately to engineering practices which tend to be much bigger and not micro-businesses.

158. A number of respondents gave comments with no view to the question:

- Antrim and Newtownabbey Council highlighted radon measures are now required in some of their area where previously there was none. This they say will increase training costs for staff and agents/builders alike;
- RICS commented they had no view because they could not verify the figures;
- CIAT did not comment because they were unaware of the cost criteria used.

Of the responses received there was general acceptance of the costs/assumptions in the RIA. The Department had anticipated that there would be training requirements for builders and transitional costs for building professionals who work in newly defined potential 'radon affected areas'. The DRAFT RIA for Part C Radon Maps update considered these costs under Appendix 1 Option 2: Transition Costs – items C14 to C18. The Department had also considered within the Part C RIA, the wider social costs and benefits to society, as noted within RIA Appendix 1 item C3 along with items C9 to C12. The Department understands the need for independent cost analysis (which had been provided by DoF Economist Branch officials), however without substantiating 'low cost' evidence further detailed cost analysis has not been considered.

Having considered the consultation responses, the Department's RIA has addressed the transitional costs for building professionals, along with Building Control professionals who work in newly defined potential 'radon affected areas'. The RIA has also addressed wider social costs and benefits to society. The response with 'Low cost' assumptions was not evidenced; therefore, the Department could not apply cost analysis accordingly.

Annex A - Respondents

Number	Name of Organisation
1	Newry & Mourne District Council
2	Antrim & Newtownabbey Council
3	Armagh, Banbridge & Craigavon Council
4	Building Control NI (BCNI)
5	Northern Ireland Fire & Rescue Services
6	Belfast City Council
7	Mineral Products Association NI
8	Mid & East Antrim Borough Council
9	Individual
10	UK Finance
11	Heating & Hot Water Industry Council
12	Vaillant Group UK Ltd
13	United Kingdom Accreditation Service (UKAS)
14	Construction Employers Federation (CEF)
15	Royal Town Planning Institute
16	Fire Brigades Union (FBU)
17	Ards & North Down Council
18	National House Building Council (NHBC)
19	Todd Architects
20	Royal Society of Ulster Architects (RSUA)
21	Fuel Industry Association (FIA)
22	Efectis UK & IRE
23	Kingspan Insulation
24	Energystore Ltd.
25	Causeway Coast & Glens Council
26	National Insulation Association of Ireland
27	Engineered Panels in construction (EPIC)
28	Insulation Manufacturing Association
29	Rockwool Ltd.
30	UK Phenolic Foam Manufacturers Association (part of the European Phenolic Foam Association)
31	Lisburn & Castlereagh Council
32	Royal Institution of Chartered Surveyors (RICS)
33	Chartered Association of Building Engineers (CABE)

34	Fire Risk Solutions Northern Ireland Ltd.
35	Association of British Insurers
36	Keystone Group
37	Northern Ireland Local Government Association
38	White Ink Architects (individual responding as member of CIFNI)
39	Chartered Institute of Architectural Technologists (CIAT) – on behalf of NI region
40	British Blind and Shutter Association
41	Building Societies Association
42	Mid-Ulster District Council (Director of Public Health and Infrastructure)
43	British Library (not a technical response)