

Appendix 1 – MUDC Response to Consultation



**Building (Amendment) Regulations
(Northern Ireland) 2023**

Consultation Response Form

July 2023

(closing date for receipt of responses is Monday 25 September 2023)

Building (Amendment) Regulations (Northern Ireland) 2023 - Consultation

Overview

Fire safety measures in buildings established through the local Building Regulations contribute significantly to maintaining life safety standards for occupants/residents and firefighters alike, not to mention the contribution they make in terms of property protection.

The proposed consultation contains amendments to uplift fire safety protection measures in a range of buildings. They are mainly focused on residential buildings and in particular domestic multi-residential buildings, to provide assurance and additional safety measures to residents. Some amendments are aimed at assisting the Fire and Rescue Service to ensure they can provide an effective operational response. The intended effect of the proposals is to reduce the consequences of fire through saving lives and preventing injuries.

Why your views matter

The Grenfell tragedy and subsequent Phase 1 report to the Public Inquiry highlighted the potential benefits of some of the items proposed in this consultation - sprinkler usage, wayfinding signage, evacuation alert sounder systems, smoke ventilation systems and secure information boxes to improve resident safety. Sprinklers in particular have been proven to be very effective fire protective measures for saving lives in residential type buildings.

The Department is seeking your views on these matters and the other amendments as proposed to the local Building Regulations through this consultation. Your views will help to inform the development of final policy proposals.

It is not compulsory to answer all of the questions, so you can take part in the consultation even if you do not have views on all of the above issues. The answers you give will inform the development of final policy proposals and legislation, so we would encourage you to take this opportunity to have your say.

Privacy Notice

The Data Protection Act 2018 states that, as a government department, DoF may process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation. In addition to the statutory requirement in the Building Order to consult on building regulations matters there is an expectation of appropriate public consultation on substantive changes to the Building Regulations.

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

Your data will be kept for two years, after which all data will be deleted. To find out how we handle your personal data, please see our [privacy policy](#). When submitting this response you agree to our privacy policy.

All the information you provide will be treated in strict confidence and will not be used to identify you personally. The analysis will be carried out on an anonymous basis under the guidelines of the GDPR.

Where consent has been provided consultation responses will be published on the Department of Finance website, no personal data will be published.

Information will not be passed on to anyone else and will only be used for the purposes of this consultation/survey or if necessary to fulfil legal or regulatory requirements.

Completion of the Response Form

The Department will consider all responses to this consultation received on or before the closing date for receipt of responses which is **25 September 2023**.

Submissions made after this date will not be considered.

We would strongly encourage you to respond to the consultation by completing the survey on the Citizen Space platform, which can be accessed [here](#).

If using this form to respond to the consultation please send it by email to:

info.bru@finance-ni.gov.uk or it may be posted to:

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Please refer to the package of Consultation Documents which outline fully the proposed amendments at –

<https://www.finance-ni.gov.uk/consultations>

For ease of use, questions relating to each aspect of the consultation are referenced by a letter relating to the Part of the Building Regulations that the aspect is considering, for example A1 and A2 are questions on Part A: Interpretation and general; E1, E2 etc. are questions on Part E: Fire safety and TBE1, TBE2 etc. are questions on Technical Booklet E: Fire safety.

Click on the box (or insert an “x”) beside “Yes”, “No” or “No view” as appropriate. It is not essential to give an answer to every question. The last question is completely open to enable consultees to make suggestions or observations on relevant issues that are not addressed by answering the preceding questions.

Please make any comments you might have in the box provided. If you disagree with any of the proposals the Department would be interested to know why you disagree.

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Respondent Details

In order for your response to be considered valid, you must provide the following information:

Name	Anne-Marie Campbell – Strategic Director of Environment
Organisation (if any)	Mid Ulster District Council
Email	Anne-Marie.Campbell@midulstercouncil.org

Are you responding as an individual?

Or are you representing the views of an organisation?

These are the views of Mid Ulster District Council on this consultation.

Please indicate how you wish your response to be handled and, in particular, whether you are content for your response to be published.

If you ask for your response to be confidential, we will still take account of your views in our analysis but we will not publish your response, quote anything that you have said or list your name. If you ask for your response to be regarded as confidential and not to be published, you will be asked to explain to us why you regard the information you have provided as confidential.

To find out how we handle your personal data, please see your privacy policy ([Department of Finance Privacy Notice | Department of Finance \(finance-ni.gov.uk\)](#)). When submitting this response you agree to our privacy policy.

The Department of Finance would like your permission to publish your consultation response. Please indicate if you wish your response to be treated as confidential.

Yes No

If you wish your response to be treated as confidential, please provide your justification for doing so.

We may wish to contact you again in the future, but we require your permission to do so. Are you content for the Department of Finance to contact you again in relation to this consultation exercise?

Yes No

PART A, INTERPRETATION AND GENERAL: QUESTIONS

Part A of the Building Regulations (Northern Ireland) 2012 (as amended) (the Building Regulations) defines certain terms used in the regulations and establishes processes which relate to the application of the regulations.

(Refer to Section 4 of the Consultation proposals document)

It is proposed to amend Part A of the Building Regulations and in particular regulation 8 (Application to material change of use) so that when a building becomes a 'relevant premises' (as defined under the Fire and Rescue Services (NI) Order 2006) after a material change of use, that building will be subject to the new requirement of regulation 37A. The same requirement will apply to a building containing one or more flats with a storey more than 11m above ground level that is created as a result of a change of use.

Similarly it is proposed to amend Part A of the Building Regulations and in particular regulation 8 (Application to material change of use) so that when a building on the prescribed list i.e. becomes a building containing flats or a building for purpose built student accommodation with a storey more than 11m above ground level or a residential care home, nursing home, children's home, family resident centre due to a material change of use, then that building will be subject to the new requirement of regulation 37B.

The amended Table to Regulation 8 (Application to material change of use) will demonstrate for the existing Cases where the new requirements in regulations 37A and 37B will apply.

A1. *Do you agree with the proposal to require a building which becomes a 'relevant premises' (as defined in the Fire and Rescue Services (NI) Order 2006) or a building containing one or more flats with a storey more than 11m above ground level, due to a material change of use, to be subject to the requirements of new regulation 37A?*

Yes No No view

The Provision of Fire Safety Information is considered prudent. This piece of legislation will help to maintain the Golden Thread of relevant fire safety information relating to active and passive fire safety measures incorporated in a building during construction and throughout the building's lifespan. This information is vital to those people with fire safety responsibilities and to assist statutory bodies in fire and rescue situations.

We would however point out that Table 8 of the Regulation does not reference Regulation 37a for buildings over 11m containing flats. The note 3A & 3B may cause

confusion in its layout and exclusion of cases ii & iv if they change to a `relevant premises`

With regards to Reg 37A (a) & (2)(a) we would comment that relevant definitions as defined in the Fire and Rescue Services (NI) Order 2006 should be incorporated within the new update to TBE as an appendix. Article 50, 52 of this Order contains a further reference to Articles 25-30 to get the concise definition, which ranges from agent, contractor, applicant, CDM coordinator etc.

Comments (if any):

A2. Do you agree with the proposal to require a building which becomes a building on the prescribed list of buildings in regulation 37B due to a material change of use, to be subject to the requirement of new regulation 37B?

Yes No No view

Comments (if any):

Mid Ulster District Council (MUDC) considers that Regulation 37B Automatic fire suppression is a step forward in fire safety which helps provide greater harmony with other UK jurisdictions and will further protect those within these new residencies.

Research and fire statistics acknowledges the role sprinkler systems play in reducing the risk to life. Relying on passive protection and constructional detailing with a material change of use can be in the majority of cases be perplexing and difficult to achieve. An associated benefit will also be the protection of property and the impact of fire on the environment.

The prescribed list as outlined in 37B would lessen the risk to life of occupants in these buildings, providing a greater level of life safety.

We also comment that greater clarity is required to avoid ambiguity regarding Part A, Table 8. Whilst we appreciate that Table 8 should be read in conjunction with the regulation, Table 8 of the Regulation does not reference Regulation 37b. This could cause confusion within the industry especially with designers at the concept stage of a project.

PART E, FIRE SAFETY: QUESTIONS

Part E of the Building Regulations sets out requirements in buildings for ensuring adequate means of escape, adequate limitation for internal fire spread to linings and internal structure, adequate limitation on external fire spread and adequate facilities and access for the Fire and Rescue Service.

(Refer to Section 5 of the Consultation Proposals document).

It is proposed to introduce a new Regulation 37A ‘Provision of fire safety information’ to require that adequate ‘as built’ fire safety information is made available to the person responsible for fire safety duties in a building after completion of a project when a building is handed over for ownership/occupation.

The information will be of benefit to the owner/occupier in operating and maintaining the building for fire safety purposes and is seen as a necessary link between fire safety measures installed as part of the design and as-built phase and the occupied phase in the lifecycle of a building.

With this information, owners/occupiers should be able to understand and implement the fire safety strategy of the building; maintain any fire safety system provided and carry out an effective fire risk assessment of the building.

E1. *Do you agree that as built ‘fire safety information’ should be required to be given under Building Regulations to those responsible for fire safety duties in a building not later than the date of completion of the work, or the date of occupation of the building or extension whichever is the earlier?*

Yes **No** **No view**

Comments (if any):

MUDC agree that this information should be provided not later than the date of completion of works and specifically fire safety measures. Previous discussions have highlighted that buildings should not be occupied until Building Regulations completion i.e., all works associated with building regulations compliance are complete.

This allows the opportunity to disseminate all 'as built information' on active and passive fire safety measures including assurance that any cause and effect associated with active / commissioned systems is fully understood. An adequate period of time is required post completion prior to occupation to collate this information and hand over to the person responsible for fire safety matters to ensure it is understandable, accurate and represents 'as built' construction and not simply a tick box exercise.

It is proposed to apply the new regulation to ‘relevant premises’ as defined under the Fire and Rescue Services NI Order 2006 (FRSNIO) and to buildings containing one or more flats with a storey more than 11m above ground level. ‘Relevant premises’ under the FRSNIO are predominantly all non-domestic buildings.

This requirement was introduced to Building Regulations in England and Wales in 2006 and a similar requirement for fire safety design summaries was introduced in Scotland in 2013. Introducing here will bring NI into line with the existing requirement in other regions.

E2. Do you agree with the scope of buildings (‘relevant premises’ as defined under the FRSNIO and buildings containing one or more flats with a storey more than 11m above ground level) for the new regulation to apply to?

Yes No No view

Comments (if any):

As this now provides greater harmonisation with other UK jurisdictions, we would have no adverse comment in this regard. All relevant research and firefighting statistical information support the 11m threshold.

A re wording of 37A (1) is required i.e. “*This regulation only applies when building work or a **relevant** change of use creates...*” infers the regulation only applies when the work or change of use ‘creates’ an in-scope premises.

Whilst the term ‘building work’ within building regulations is defined to include extensions, alterations etc relating it to applying only in the situation of creating the building is confusing and incorrect. We understand the intent is to apply this to building work which also extends or alters a building not just in the situation of where it is created. A re-wording of this should be considered.

The Building (Amendment) Regulations (Northern Ireland) 2022;
Part A Regulation 8 defines a **Material** change of use.... whereas English terminology **Relevant** is used throughout.

The regulation is worded in a similar way as equivalent regulation 38 for England and Wales which was introduced there in 2006. Responsibility for compliance with this new requirement will fall upon ‘the person carrying out the work’.

E3. *Do you agree with the use of the term ‘person carrying out the work’ in the regulation or do you think a more specific individual should be cited in the regulation and hence responsible for providing this information?*

Yes **No X** No view

Comments (if any):

It would be MUDC’s opinion that provision of such information is clearly the responsibility of the person fulfilling duties associated with a role carrying overall responsibility for the design/construction phase. This person should be responsible for ensuring the organising / preparation of this information through all the relevant parties involved in the design and construction phase.

We are unaware of any challenges or issues brought about with regard to this wording as used in England and Wales since Reg 38 was introduced. Regulation 12 in the NI Building Regulations refers to ‘Builder’, whilst the builder may have some of the information and knowledge to help formulate a package of relevant information a duty needs to be placed on a person with fire safety responsibilities. The Hackett Report highlighted the lack of transparency within the industry regarding fire safety and the lack of ownership/responsibility for fire safety from conception to completion of the works.

It is proposed to introduce a new prescriptive regulation 37B which will require the provision of suitable automatic fire suppression systems (e.g. sprinklers) in certain types of buildings.

Sprinkler systems installed in residential type buildings can reduce the risk to life and significantly reduce the degree of property damage caused by fire. Evidence has shown that automatic fire sprinklers protect residents from fire, they limit fire spread protecting means of escape for residents, and also protect Firefighters who attend such fires.

E4. Do you agree that a new prescriptive regulation requiring the provision of suitable automatic fire suppression systems in certain types of buildings should be introduced under regulation 37B?

Yes No No view

Comments (if any)

MUDC welcomes the requirement for automatic suppression systems in apartment buildings, in PBSA over 11m in height and in care homes. The mandatory nature of this requirement ensures these systems must be incorporated in these buildings and cannot be designed out.

The prescribed list as outlined in 37B will provide a greater level of life safety in these buildings and greater harmony with other UK jurisdictions.

Further consideration of more prescriptive regulations will bring clarity to requirements for critical life safety systems and construction details.

However, fatalities and injuries statistics appear to occur in existing stock of residential buildings. Research and statistical fire information acknowledges the current role sprinkler systems play in reducing the risk to life for residents and firefighters. Statistical information provided by Wales Fire Service 2020/21 seen the greatest number of fatalities since 2011 (21) compared to N. Ireland which had 8 fatalities in the same period up from 3 the previous year.

The new regulation will apply to a prescriptive list of buildings only, including buildings containing one or more flats with a storey more than 11m above ground level; purpose-built student accommodation type buildings with a storey more than 11m above ground level; all residential care homes, nursing homes, children's homes and family resident centres irrespective of storey height.

In relation to adding to this list, there may be a wider piece of work in future to consider a broader range of buildings with a sleeping risk for automatic fire suppression provision e.g. hotels. There may also be some higher risk Purpose Group 5 buildings (Assembly and recreation) which may merit consideration on the list.

E5. Do you agree with the scope of buildings as proposed for now under new regulation 37B?

Yes No No view

Comments (if any):

MUDC would agree with the current proposals as set out in the new Regulation 37B and understand the resources and time required to update any guidance or create new functional/prescriptive requirements.

We would request that this matter is reviewed further to consider how the scope of this regulation should be widened to create maximum benefit. Additional buildings within purpose group 1 and 2 which contain a sleeping risk would be obvious areas to focus on initially.

A threshold storey height of 11m has been chosen to align with the same requirement in England for buildings containing one or more flats. This height is also consistent with the joint call in March 2019 from the Royal Institute of Chartered Surveyors (RICS), Royal Institute of British Architects (RIBA) and the Chartered Institute of Building (CIOB) on government to require the installation of sprinklers in all new and converted residential buildings, student accommodation and care home buildings more than 11m in height.

Lower trigger heights apply elsewhere in Scotland and Wales and also capture a wider number of building types.

E6. *Do you agree with the height threshold of 11m for buildings containing one or more flats and purpose-built student accommodation as proposed under new regulation 37B?*

Yes No **No view X**

If you disagree, state the height threshold you think it should be and your reasons why.

Comments (if any):

It is acknowledged this height is the UK trigger for application of requirements relating to automatic suppression and in this regard, we have neither information to back up the chosen trigger height or to contest it.

Statistics highlight that between 1 Jan 2017 to 31 Dec 2022 there were 6 fire related fatalities in apartments out of a total of 39 and none of these fatalities occurred above the second floor. 33 of the fatalities occurred in lower rise residential occupancies and at lower levels. However, these statistics do not take into consideration the impact a fire may have and the potential for a high fire fatality loss in buildings at height.

MUDC suggest a further review in relation to extending the scope of this regulation to other buildings containing a sleeping risk taking into consideration fires fatality and casualty statistics. Any increase in scope should be targeting those more at risk.

We understand that Building Control Northern Ireland (BCNI) have previously provided information to the Finance Committee through testimony and in written correspondence dated 22nd February 2021 which outlined areas for improvement. One of those areas was in relation to sprinkler provision in timber externally and internally framed buildings of any height. We understand this letter has been passed to the Department.

It is proposed to apply new requirement 37B to all (irrespective of height) care homes, nursing homes, children’s homes and family resident centres as defined by the ‘Health & Personal Social Services (Quality, Improvement & Regulation) (Northern Ireland) Order 2003’. These terms will be grouped under the definition for ‘residential care premises’.

E7. *Do you agree with the definition of residential care premises being adopted in building regulations for the application of new regulation 37B?*

Yes **No** **No view**

Comments (if any):

MUDC would be of the opinion there is a higher risk of injury or death in these premises due to the nature/ level of vulnerability and dependency of occupants and the difficulties associated in undertaking an evacuation in a fire situation. In this regard regulation 37B as a mandatory requirement for installation of AWFS is welcomed.

Regulation 32 (3) definition of Residential Care Premises is clear and unambiguous.

Introducing a prescriptive requirement for the installation of automatic fire suppression systems (e.g. sprinklers) in certain types of buildings here for the first time is likely to require a period of time of adjustment for the industry. It is proposed to have a transitional period of 6 months between the requirement being made and it coming into operation.

E8. *Do you agree with a transitional period of 6 months?*

Yes No view

If you disagree, state how long the transitional period should be and your reasons why.

Comments (if any):

Any transitional period allows an opportunity for ample training of Building Control Officers and industry professionals ensuring further enhancement of competencies regarding design and installation of automatic suppression systems.

TECHNICAL BOOKLET E, FIRE SAFETY (TBE); QUESTIONS

Part E of the Building Regulations sets out fire safety requirements in relation to buildings.

(Refer to Section 6 of the Consultation Proposals document and consultation version Technical Booklet E).

Alongside the technical requirement changes to Part E legislation, a number of changes to Technical Booklet E (TBE) are proposed. The Department is issuing a consultation version of a TBE indicating the proposed changes as part of this consultation (see paragraph 3.3 of document C2 'Consultation proposals'). The amended TBE will provide guidance on demonstrating compliance with the new Part E requirements 37A and 37B. It will also contain revisions to Section 2 to amend provisions for fire alarms in dwellings and smoke ventilation from the common escape routes of medium/high-rise buildings containing flats. Revisions to Section 6 will include amended and new provisions for firefighter safety for Facilities and Access for the Fire and Rescue Service.

The new guidance to regulation 37A in Part E will be placed in a new Section 7 'Fire safety information' of TBE.

The guidance gives 'essential information' for simple buildings and more detailed 'Additional information for complex buildings'. The amount and degree of information required will depend on the individual circumstances of the building concerned.

TBE1. *Do you agree with the proposed guidance in Section 7 of the consultation version TBE for 'fire safety information'?*

Yes No No view

Comments (if any):

It is not clear when the application of guidance provided in paragraph 7.6 with respect to complex buildings is relevant. Is it the assumption that a building falling outside the parameter of TBE is deemed a complex building, or is this dependant on size and number of storeys?

The guidance in Section 7 should be beneficial in general for industry professionals.

The new guidance to regulation 37B in Part E will be placed in a new Section 8 'Sprinklers' of TBE. It is aimed at providing guidance for sprinklers as one way to satisfy the automatic fire suppression system requirement of regulation 37B.

The guidance gives general information on sprinklers; makes reference to design standard BS 9251 "*Fire sprinkler systems for domestic and residential occupancies. Code of practice*" for residential buildings and BS EN 12845 '*Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance*' for non-residential buildings.

Guidance for water supplies and pumps for non-residential sprinkler systems designed and installed to BS EN 12845 is also provided.

TBE2. *Do you agree with the proposed guidance regarding sprinklers given in Section 8 of the consultation version of TBE?*

Yes No No view

Comments (if any):

MUDC concurs with the proposed guidance and the reference to the relevant standards for detailed design and installation requirements providing greater harmony with other UK jurisdictions. We would note however in relation to the references that sprinklers should be extended to common areas only where they are not deemed sterile, BS EN 12845 and BS 9251 both call for sprinklers to be provided in all parts of the premises, so applying the exemption in TBE makes those sprinkler systems non-compliant with these standards.

In addition, more guidance should be provided to designers and Building Control on the acceptability of the alternative established fire suppression systems referred to in paragraph 8.4.

The Department intends to revise the contents of Section 2 of TBE as a whole, as part of the next phase of changes to Part E and TBE. However, as part of this package of changes now, it is proposed to uplift the current requirement in TBE for fire alarm provision in dwellings.

Currently TBE requires a fire alarm system of Grade D Category LD2 to BS 5839-6 with smoke alarm or alarms in the principal habitable room and a heat alarm in each kitchen. This is currently more onerous than ADB1 in England and Wales, in line with the Technical Handbook in Scotland but less onerous than the standard set in Technical Guidance Document B in Republic of Ireland.

It is proposed to require smoke alarms in every habitable room in a new build dwelling or a dwelling created as a result of a material change of use. (Smoke alarms in circulation routes and heat alarms in kitchens will also still be required).

The proposal should benefit all occupants but particularly those who may be elderly/vulnerable/asleep and tend to react slower. Where available time for evacuation is critical, earlier warning and increased audibility levels of the alarm throughout the dwelling should enhance occupant safety.

Habitable room will be defined in TBE as “*any room in a dwelling other than a kitchen, utility room, bathroom, shower room, dressing room or WC*”.

TBE3. *Do you agree with the revised provisions for installation of smoke alarms in all habitable rooms as part of automatic fire detection in new dwellings?*

Yes No No view

Please provide any evidence in support to your answer.

Comments (if any):

MUDC agrees with the provision of fire detection in all habitable rooms. This is similar to guidance brought into Republic of Ireland a few years ago due to an increase in fire incidents as a result of portable devices being charged and used more frequently in bedrooms.

This proposal imposes a higher standard of fire detection in Northern Ireland, above and beyond any UK guidance and current British standards.

The dramatic fall in fire related fatalities in the late 1970s across the UK was largely attributed to the widespread use of smoke alarms around that time. Following the introduction of requirements within Building Regulations in the 1990s there has been limited change to the coverage required whilst the cost has continued to fall, and the benefits have continued to be evidenced in terms of fire fatality rates.

In relation to the level of fire alarm system required in an existing dwelling when it is subject to an extension and/or alteration, with the exception of a roofspace conversion to habitable accommodation in a dwellinghouse, TBE does not specify the level of provision.

The coverage of fire alarm system required when an extension and/or alteration occurs will depend on the starting fire alarm provision in the dwelling prior to the extension and/or alteration. Under existing provisions in TBE, it is unlikely for instance that an existing system would have the appropriate level of detection to alarm a new habitable roofspace storey. However, an existing system may be adequate to provide appropriate level of detection to an extension and/or alteration which creates a new habitable room on the same storey. This will of course change if the proposal to alarm all habitable rooms in a dwelling is adopted.

The intention of the new guidance in TBE is to bring clarification to the issue of fire alarm provision when a dwelling is extended and/or altered.

TBE4. *Do you agree with the new guidance in relation to fire alarm provision in dwellings subject to an extension and/or alteration work?*

Yes **No X** No view

Comments (if any):

With regard to an extension or alteration we would consider this very onerous.

There appears to be no evidence to support the need to fully upgrade an existing dwelling with full coverage as suggested for an extension or alteration.

The new guidance suggests that no detection is required when a new habitable room has a final exit at ground floor. We would be of the opinion that detection should be required to warn occupants of a fire in a room with a final exit created by an extension. Occupants of that room may be unaware of a fire in the adjoining part of the dwelling and therefore will not receive any alert to evacuate the dwelling in the event of a fire. If this room is a bedroom and the occupants are sleeping, they may be overcome by smoke & toxic gases before being able to make their escape.

It should be noted no guidance regarding the standards required for alterations is provided as per the heading. An interpretation could be this is a standard for a situation where a new room is created by alterations however no standard is provided otherwise for alterations or for the situation of retrofit which currently causes much confusion.

In paragraph 2.24B reference is made to smoke alarms being installed in accordance with paragraph 2.23. Consider replacing with 'automatic fire detection' as per the requirements of 2.23 which includes smoke and heat alarms.

Also proposed as part of this package of changes to Section 2 of TBE is to clarify the smoke ventilation requirements in the common escape routes (lobbies/corridors/stairways) of buildings containing flats.

The new provisions will provide for external wall smoke vents or smoke shafts as a means to achieve natural smoke ventilation from common escape routes in blocks of flats and make reference to BS EN 12101-6 '*Smoke and heat control systems – Part 6. Specification for pressure differential systems*' as the document to use for the designing of mechanical smoke control systems that use pressure differentials.

BS EN 12101-2 :2017 '*Smoke and heat control systems. Natural smoke and heat exhaust ventilators*' will also be cited as the standard for natural smoke ventilators.

TBE5. *Do you agree with the amended guidance regarding smoke ventilation from the common escape routes in buildings containing one or more flats as inserted in TBE?*

Yes No No view

Comments (if any):

In principle MUDC welcome this first draft attempt at incorporating smoke ventilation for common escape routes into TBE. We would however have concerns regarding the ambiguity of wording, content clarity and lack of diagrams to provide greater clarity thus avoiding confusion to already established guidance for those within the fire industry.

Small buildings with no storey more than 11m above ground level, with a single stair

It would be advisable diagrams are lifted from BS5588:1/9991 to ensure correct approach for fire professionals. Para 2.34D Small building up to 11m does not reference increasing the travel distance to 7.5m through the introduction of an AOV as noted within the figure 14 or as per Fig 8 – note1(BS9991). This oversight should be corrected or if proposed omission an explanation as to why a deviation from previous and current guidance is being considered.

Further guidance should be considered regarding the operation of manual vents as per BS5588:1-para 37.4 *Recommendations for means of opening of windows and vents for smoke control of common areas.*

We would be unclear of the wording and rationale regarding- "the smoke control strategy given in (a) should not be used in an open plan flat layout design". Further clarity would be required as this statement appears to deviate from guidance in BS5588/9991.

We would request greater clarity regarding para 2.34D (b) noting the maximum travel distance in the **communal areas** should be 4.5m. There is much confusion currently with this same wording in BS9991 and there is no clarity as to where this common

area travel distance restriction needs to be applied or indeed the reasons for it. As previous, diagrams would be beneficial in explaining this requirement.

It appears industry specialists have a greater awareness regard positioning of AOV however Para 2.34D(b) whilst directly lifted of BS5588 still causes some confusion within industry. To negate any confusion the reference to 'at the top of the stair' should be replaced with '**over the stair**'.

Buildings with a storey more than 11m above ground level and served by a single stair
Reference is made to para 4.44 ventilation ducting via para 2.34(G) (b) ii) it is unclear how this relates to vents into smoke shafts for smoke control.

Proposed paragraph 2.34(G) (b) (iv) (aa) in TBE i.e., "*.... where the fire is located, **along with** at the top of the smoke....*" should be reworded as it is unclear. Alternatively lift wording from BS9991 which is more concise. BS 9991 wording is as follows: -

"Where the vents discharge into a smoke shaft, the vents on the fire floor, at the top of the smoke shaft and on the stairway should all be configured to open simultaneously upon automatic activation of the system in the common corridor or lobby. The vents from the corridors or lobbies on all other storeys should be configured to remain closed".

In relation to the recommendations regarding the operation of vents into a smoke shaft at 2.34 (G) (b) (iv) there is no indication if a manual override should be provided or is not permitted. Whereas alternative standards indicate, "*stand-alone manual override facilities should be provided that allow the fire and rescue service to have direct control of the smoke control and normal ventilation systems within the building*".

2.34H recommends that a smoke vent should be provided to the top storey of the stair. This should be 'over the stair' to ensure this is not interpreted as vertical vent at the top landing which may be more susceptible to wind direction. It is not clear if this is a recommendation for both situations of lobby venting (shaft or wall mounted vents).

The operating procedure discussed at 2.34J is not related by reference to either of the options for lobby ventilation (shaft or wall mounted vents). The operating protocol is at variance with the operating protocol for the shaft scenario which requires three vents to open, and this is dealt with in detail at 2.34 (G) (b). It is therefore assumed this is related to the lobby venting arrangement associated with 2.34 (G) (a). To avoid confusion this should be clarified. If a general point is to be made regarding AOV's being activated by smoke detectors this could be separated out.

Multiple stair buildings

The smoke ventilation for multiple stair buildings is indicated at 2.34 K as being the same as single stair buildings with the exception that vents to the exterior may be activated manually. Both BS5588 Part 1 and BS9991 have arrangements where external vents are required as AOV's. In BS5588 Part1 this would be within lobbies or corridors where a dead end exists and in BS9991 this would be in all situations

within lobbies or corridors. It is not clear why this is replacing the ventilation arrangements in BS5588 Part 1.

Smoke control of common escape routes by mechanical ventilation

Whilst BS5588 Part 1 does provide guidance and recommendations on the situations where pressurization can be used and how this impacts design there is no mention in guidance regarding the use of mechanical smoke extraction. More commentary about the use of smoke extraction would be beneficial.

General

- It is difficult to fully understand the recommendations without diagrams. BS9991 regarding smoke control is currently under review however is more up to date with current smoke control guidance in line with SCA guidance. Consideration should be given to lifting diagrams directly out of BS5588/BS9991 as the fire industry professional are familiar with these without the need for any manipulation or tweaks which will only cause further confusion.
- It would avoid confusion by referencing these recommendations for smoke ventilation in TBE against BS 55588 Part 1 diagrams for clarity and also make clear which recommendations in BS5588 Part 1 these new paragraphs in TBE are replacing. It will not be clear to designers or Building Control how much of the smoke control recommendations in BS5588 Part 1 still apply or should be applied.
- There are no recommendations regarding balcony or deck approach and therefore an assumption is made that the arrangements in BS5588 Part 1 is still relevant.
- We would draw the Department's attention to The Smoke Control Association guidance document – 'Guidance on smoke control to common escape routes in apartment buildings. This document provides a critical analysis of recommendations contained in both ADB and BS9991 which some of the recommendations proposed for TBE are based.
- There is no reference to BS EN 12101 Part 2 in Appendix C to establish the benchmark for this requirement.

While it is recognised that phase 3 of the process to further revise TBE is still to come, it is vital that smoke ventilation is addressed to the latest standard with no room for any confusion or ambiguity.

A series of changes are proposed for Section 6 'Facilities and Access for the Fire and Rescue Service' of TBE. The changes and new provisions are aimed at assisting firefighters in their daily operations of firefighting and search and rescue.

It is proposed to require Purpose Group 5 (PG5) buildings (Assembly and Recreation) which have a storey 900m² or more in area at a height of 7.5m or more above fire and rescue service access level to have a firefighting shaft. All buildings irrespective of Purpose Group with a storey more than 18m above fire and rescue service access level require a firefighting shaft. PG 4, 6 and 7a buildings with a

storey 900m² or more in area at a height of 7.5m or more above fire and rescue service access level already require a firefighting shaft.

A firefighting shaft is a protected enclosure containing a firefighting stair and firefighting lobby. If a lift is provided, this may or may not be a firefighting lift. These features are provided to assist attending firefighters in their operational duties.

TBE6. *Do you agree with the proposed change in guidance to require all Purpose Group 5 buildings which have a storey 900m² or more in area at a height of 7.5m or more above fire and rescue service access level to have firefighting shaft provision?*

Yes No No view

Comments (if any):

MUDC agree to what is proposed. Research has shown that Purpose group 5 buildings can be of higher risk. We would support this change as it has the potential to provide greater safety for fire service operations, whilst also harmonising guidance with BS9999 and ADB.

To address safe penetration distances for firefighters, it is proposed to amend the design provisions for locating firefighting shafts and protected stairways. The amended guidance will require every part of each storey in a building more than 18m above fire and rescue service vehicle access level (or 7.5m where applicable), to be no more than 60m from a fire main in a firefighting shaft. In addition the guidance will require where sprinklers are not provided, the distance from any part of a storey should be no more than 45m from a fire main in a protected stair/shaft.

Distances are to be measured suitable for laying a fire hose.

TBE7. *Do you agree with the amended guidance so that the maximum distance from any point on a storey to a fire main in a firefighting shaft is 60m and in addition, where sprinklers are not fitted, the distance should be a maximum of 45m to a fire main outlet in a protected shaft (not necessarily a firefighting shaft)?*

Yes No No view

Comments (if any):

In general, we would be in agreement with the proposal. Research has proven this can have a direct impact on the health and safety of firefighters. It is also harmonising guidance with current standards contained within BS9999 and ADB. Table 6.1 is proposed removed rather than amended, further clarity and rationale would be of benefit as noted below.

Paragraph 6.3A deals with hose distances to firefighting shafts (FFS) for storeys over 18m and 7.5m. This deals with FFS's required under paragraphs 6.3 (a) and (b) but with deletions there does not appear to be any requirement in relation to maximum hose distances **for basements** which require a FFS by paragraph 6.3 (c) and (d).

6.3A also states that protected stairways should be located within hose laying distances. No explanation or rationale has been provided as to why protected stairways have been included in addition to FFS's.

It would appear from the changes that additional FFS's are not required beyond 2000m² as per the current TBE. No commentary is provided on this within the consultation document however the new guidance on FFS provision will see the number dictated by hose laying distances alone. In relation to this, paragraph 6.3B (b) recommends a limit to hose lengths to 45m where no sprinklers are installed. In the text this hose length limitation is related to protected shafts with a fire main. The proposed document also states this does not imply that the protected shaft needs to be a firefighting shaft.

Given that a protected shaft does not typically contain a fire main nor is it provided with the same level of protection or facilities as a FFS (passive fire resistance, firefighting lobbies, ventilation etc) it is not clear how relating hose laying distance to a protected shaft with a fire main installed for buildings that are not sprinklered is achieving an increased level of safety to fire fighters. The additional requirement for un-sprinklered buildings of 45m hose laying lengths is achieved by fire mains being provided in a protected shaft.

As previously indicated, diagrams are much needed and beneficial to negate further confusion. Diagrams and Tables such as those in ADB Diagram **15.1, 15.2, 15.5** along with a crossover of BS999 **Table 17** would limit any ambiguity.

From research into required flow of water through a dry fire main, it is proposed to amend the design provisions in TBE to restrict the use of a dry fire main to a storey height of 50m above fire service vehicle access.

The proposed change in guidance from the existing 60m storey height to 50m will ensure a building with a storey over 50m above fire service vehicle access level should be provided with a wet fire main. All other buildings where fire mains are provided can fit a wet or dry fire mains.

TBE8. *Do you agree with the amended guidance to set a storey height limit of 50m above fire service vehicle access level for provision of a dry fire mains?*

Yes No No view

Comments (if any):

We agree with the proposal in principle although it is unlikely to impact MUDC as it currently does not have buildings of such height. Research has demonstrated the difficulties incurred with flow rate via a 60m dry riser. The change will also harmonise guidance with more up to date guidance in BS9999 and ADB.

From research into buildings not fitted with a fire main, it is proposed to amend the design provisions in TBE in order that the effective hose penetration distance from the fire and rescue service vehicle (pump appliance) is 45m to reach all points within each individual dwelling (for blocks of flats) and dwellinghouses. This will replace the existing guidance of 45m to reach the individual dwelling entrance door.

TBE9. *Do you agree with the amended guidance so that a pump appliance can gain access, so that the effective hose penetration distance can reach to within 45m of all points within a dwellinghouse/flat? (for buildings not fitted with a fire main)*

Yes No No view

Comments (if any):

MUDC would be supportive of the proposals. As noted previously research has demonstrated the difficulties incurred with flow rates for effective firefighting. The change also harmonises guidance with more up to date guidance in ADB.

Although rare, there may be occasions when the Fire and Rescue Service require to evacuate the fire floor and in extreme cases, other floors or the entire building during an incident in a building containing flats. Currently under such circumstances, the Incident Commander instructs firefighters to knock on the doors of the flats and advise the occupants to vacate the building when it is safe to do so.

The proposal is to require an emergency evacuation alert system for buildings containing flats (Purpose Group 1a buildings) with a storey more than 18m above ground level. The system will have a sounder in each of the flats but will not be linked to the smoke and heat detection/alarm system within the individual flat. The system should provide the fire and rescue service with an option to initiate a change in evacuation strategy via an alarm.

A new Standard for such a system has been published by BSI – BS 8629: 2019 ‘Code of Practice for the design, installation, commissioning and maintenance of evacuation alert systems for use by Fire and Rescue Services in buildings containing flats’ which is proposed to be referenced in the guidance.

TBE10. *Do you agree with requiring an emergency evacuation alert system to be installed in buildings containing flats with a storey more than 18m above ground level?*

Yes No No view

Please advise if you think this threshold is not appropriate and why.

Comments (if any):

MUDC would be of the opinion this system controlled by the Fire Service will help to initiate an evacuation and alert residents where necessary. This will enhance the safety of fire fighters and residents.

This system will have greater benefit if occupants are aware of the facility and the actions required when an evacuation has been initiated. Further consideration should be given to the provision of such a facility in buildings below 18m.

There have been instances where firefighters have faced problems identifying floors and individual dwellings during an incident where the wayfinding signage perhaps could have been clearer.

It is proposed to implement a recommendation from the Grenfell Public Inquiry that wayfinding signage be present in all high-rise residential buildings. This proposal will go further than the Inquiry's recommendation and introduce a requirement for it in all Purpose Group 1a multi-occupied residential buildings with a storey more than 11 m above ground level.

Wayfinding signage is relatively straightforward and inexpensive to introduce and will support Fire and Rescue Service operations and make an important contribution to building safety.

TBE11. *Do you agree with the new requirement for wayfinding signage in buildings containing flats with a storey more than 11m above ground level?*

Yes No No view

Please advise if you think this threshold is not appropriate and why?

Comments (if any):

MUDC would be supportive of wayfinding signage for fire and rescue personnel in taller buildings. The signage is a simplistic solution at very minimal cost that can assist firefighting operations and enhance their health and safety.

In relation to the trigger height for the scope of this regulation we consider that any selection of building height will be arbitrary. Given the purpose of this requirement is to help firefighters quickly establish what floor they are on in smoke filled situations this is likely to be more of an issue in taller buildings. The height of 11m will typically include building over 4 storeys which would seem generally appropriate.

Secure Information Boxes (or Premises Information Boxes) are a recognised method through which building owners / managers and occupiers can provide information to the attending Fire and Rescue Service. Currently, there is no statutory requirement to have them installed in multi-occupied domestic residential premises, their use is voluntary.

When they are installed, there are benefits for the Fire and Rescue Service in terms of their response to incidents as the boxes provide fire-fighters with readily accessible information about the building. The information may include floor plans with the location of key firefighting equipment; a single page building plan with the location of key firefighting equipment and contact details for the person in charge of the building.

TBE12. *Do you agree with the new requirement for a secure information box in buildings containing flats with a storey more than 11m above ground level?*

Yes No No view

Please advise if you think this threshold is not appropriate and why?

Comments (if any):

MUDC would be supportive of the proposal and have no adverse comment, however, we would suggest the NIFRS response should be given thorough consideration on this matter.

IMPACT ASSESSMENT

The Department has published a Consultation Regulatory Impact Assessment (RIA) as part of the consultation documents and welcomes further evidence to inform a final stage RIA.

(Refer to Consultation Regulatory Impact Assessment – Document C4)

IA1. *Do you agree with the assumptions, costs and impacts set out in the consultation stage RIA?*

Yes No No view

Comments (if any):

Whilst it is difficult to ascertain with certainty to what affect the details provided in the RIA would have within Mid Ulster District Council, the proposed changes will result in a cost impact on Building Control Departments firstly to adequately train staff and secondly the additional assessment time required to confirm compliance both at plan assessment and site inspection stages.

GENERAL COMMENTS

The Department encourages consultees to respond on any aspects of the proposals, therefore the last question is completely open to enable consultees to make suggestions or observations on relevant issues that are not addressed by answering the preceding questions.

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

Comments (if any):

A suggestion would be that the scope of all changes be clearly noted in an introduction page going forward for ease of reference and clarity as set out in all updates of ADB and other UK guidance.

Electronic versions of all Technical Guidance documents to have a hyperlink to the definitions where the word appears. This again would be most helpful and expedient; examples of these links can be found in electronic copies of Approved Documents.

We would further recommend the Department carry out a full review and update to Technical Booklet E within a set time frame.

NEXT STEPS

The consultation will close on 25 September 2023. Responses to this consultation will be analysed and the Department response will follow.