CIC BUILT ENVIRONMENT PROFESSIONS TOGETHER

13 October 2017

Submission of evidence to the Independent Review of Building Regulations and Fire Safety

This report has been developed by and on behalf of the following organisations:

Association of Consultant Architects
Association of Consultant Approved Inspectors
Association for Consultancy and Engineering
Association for Project Management
Association for Project Safety
Chartered Institute for IT
British Institute of Facilities Management
British Institute of Interior Design
Building Research Establishment
Building Services Research and Information Association
Chartered Association of Building Engineers
Chartered Institute of Architectural Technologists
Chartered Institute of Building
Chartered Institution of Building Services Engineers
Chartered Institution of Civil Engineering Surveyors
Chartered Institute of Housing
Chartered Institution of Highways & Transportation
Chartered Institute of Plumbing and Heating Engineering
Construction Industry Research and Information Association
Ground Forum
Institute of Clerks of Works and Construction Inspectorate
Institute of Specialist Surveyors and Engineers
Institution of Civil Engineers
Institution of Engineering and Technology - Built Environment Sector
Institution of Fire Engineers
Institution of Structural Engineers
International Institute of Risk and Safety Management
Local Authorities Building Control (LABC)
Landscape Institute
National House-Building Council
Royal Institute of British Architects
Royal Institution of Chartered Surveyors
Royal Town Planning Institute

Adjudication Society
British Association of Construction Heads
British Board of Agrément
British Standards
Chartered Institute of Marketing (Construction Industry Group)
Chartered Institute of Public Relations
Institute of Demolition Engineers
Kings College London Centre for Construction Law & Dispute Resolution
Lean Construction Institute
Society of Construction Law
Society of Façade Engineers
University College of Estate Management
UK Green Building Council

Introduction

The Construction Industry Council is pleased to respond to the call for evidence in the review of building regulations and fire safety.

The CIC is the body for the built environment professions to work together. We have around fifty members and associate members, which include all the professional bodies whose members work across the built environment, from client organisations, through planning, geotechnical, design, surveying, engineering; to construction, project management, cost control, building control, site supervision; and on to facilities management and maintenance of a facility through its lifetime. Our members cover all these activities in relation to buildings, infrastructure and the managed natural environment. We believe, therefore, that we are uniquely placed to provide an holistic overview of issues, taking into account the full range of expertise in the built environment.

The submission has been developed following two workshops, involving 50 or so experts from the wide breadth of our membership. We would be happy to arrange a further round-table discussion with our members for you and your team to discuss our views in more detail and hope that there is an opportunity for this in your schedule.

CIC owns CICAIR Ltd, which is the register for Approved Inspectors and is governed by its own board of directors. CICAIR has not participated - directly or indirectly - in the CIC response.

There are no recommendations as such in our submission, which is set out as a response to your questions; but I would draw out four particular key areas of consensus agreement:

(1) that there needs to be a thorough overhaul of the guidance that underpins the building regulations;

(2) that there needs to be a consolidation of all legislation that pertains to building regulations and fire safety;

(3) that a differentiation in the regulatory regime needs to be developed for higher-risk buildings (certainly to include buildings over 18m high in which people live); and

(4) that there needs to be a National Register for Fire Safety to include agreed industry-wide standards for the accreditation of fire safety consultants and fire risk assessors (I am pleased to say that under the auspices of the DCLG Industry Response Group, CIC is already working to develop such a register, involving all the key industry and fire organisations).

We hope that you will find our contribution helpful and we stand prepared to provide further support to your essential review at any time.

Graham Watts OBE
Chief Executive

Questions

The overarching legal requirements

Q1 To what extent are the current building, housing and fire safety legislation and associated guidance clear and understood by those who need to follow them? In particular:

- What parts are clear and well understood by those who need to follow them? ; and, if appropriate
- Where specifically do you think there are gaps, inconsistencies and/or overlaps (including between different parts of the legislation and guidance)? What changes would be necessary to address these and what are the benefits of doing so?

1.1 Overall clarity of the Approved Documents

1.1.1 The question asks about how well documents are understood 'by those who need to follow them'. We believe that the intended audience consists of well-informed professionals, rather than lay readers. We also believe that confusion and errors arise when people who are not sufficiently competent attempt to apply guidance. Even for informed professionals, the system lacks clarity, as described in the following points

1.1.2 For some, there is a lack of understanding about how all the strands of legislation and guidance fit together, and about the distinction between legal requirements and extensive guidance. It seems clear that some readers believe that the Approved Documents are the requirements, for example. This response distinguishes between the Building Regulations and their Approved Documents; the Regulations are generally felt to be clearer than the guidance.

1.1.3 It is felt that the guidance in the Approved Documents often needs interpreting, and that this is a failing. There is a general sense that the Approved Documents do not provide sufficient clarity. Approved Document B is generally considered complex, difficult to follow, and in places contradictory. Difficulties in understanding, and even navigating, the documents lead to differences in interpretation even between well-informed professionals. Individual words can be a source of debate, e.g.:
'limited combustibility' leads to ambiguity as to what it actually means;
'adequate' represents different levels for different applications;
the use of 'etc' can cause differences of opinion.

1.1.4 Some feel that the guidance is 'all there', but that there is so much of it, in so many places, that no designer, builder or building manager could be familiar with it all.

1.2 Consolidation of legislation

1.2.1 The current concept of one body being responsible for legal enforcement for the construction phase (Building Control) and another body having the prime legislative responsibility for fire safety in use (Fire Authority) has worked well since the RRO, as there are clear lines of legal authority, with a clear break in the change of responsibility, on issue of a completion certificate. For further comments on this issue, please see section 2.1 of this response.

1.2.2 Some users are aware of the Building Regulations, but not the Building Act. There are differences in style, definitions and descriptions between the Building Regulations and the Regulatory Reform (Fire Safety) Order (RRO) which cause discontinuities between compliance pre- and post-completion: these are two different legislative processes, with two different legislative bodies trying to achieve the same aim at different points of the building life. The legislative elements span a number of decades, and there are both overlaps (some conflicting) and gaps between the elements.

1.2.3 Should there be statutory intervention as a result of this Review, it provides an opportunity to create a consolidation of legislation, with a common language and a common style, providing a more robust and transparent overview of the requirements. It would be beneficial to have a more concise suite of legislation that more clearly sets out the requirements and responsibilities at each stage of the process, from original design and through the life of the building, including changes and refurbishments later in the building's life.

1.2.4 The Construction (Design and Management) Regulations 2015 (CDM) should also be considered in a consolidation of legislation. The split between duties for structures 'designed for use as workplaces' and other structures might also be reconsidered, as the split has little relevance in common construction procurement practices.

1.2.5 Other parts of the legislative framework that should be included in a consolidation process include the Housing Act 2004 (specifically the Housing Health and Safety Rating System (HHSRS)). While the HHRS is accepted well by the industry, it needs regular updates to guidance and hazard profiles. There are also provisions in the Defective Premises Act 1972 that should be revisited to ensure consistency with other related legislation.

1.2.6 It should also be noted that a Private Member Bill, the 'Homes (Fitness for Human Habitation and Liability for Housing Standards) Bill 2017-19', received its first reading in July, and is scheduled for a Second Reading in January 2018. The aim of the Bill is to amend the Landlord and Tenant Act 1985 to require that residential rented accommodation is provided and maintained in a state of fitness for human habitation; to amend the Building Act 1984 to make provision about the liability for works on residential accommodation that do not comply with Building Regulations; and for connected purposes. Should this be made law, this would have an impact on the legislative framework. The content should be considered in any consolidation and review. https://services.parliament.uk/bills/2017-19/homesfitnessforhumanhabitationandliabilityforhousingstandards.html

1.2.7 As an interim measure, a consolidation of the 2010 Building Regulations with the subsequent amendments is a priority. There would also be significant value in the production of a single document incorporating the Sustainable and Secure Buildings Act into the Building Act. This would allow the full provisions of the two Acts to be seen as a single coherent whole.

1.2.8 While reviewing the over-arching legislative framework, and before embarking on a complete re-drafting of the Building Regulations and Building Act, aspects that have not been implemented or activated should be considered. For example, section 2 of the Building Act enables regulations to apply on an ongoing basis after completion, and for those requirements to be retrospective. This is on the statute book, but has never been brought into use. It is worthwhile to consider fuller and more effective use of legislation that already exists before creating new content. It is also essential that any review considers how any proposed change would deliver healthier and safer buildings, and that unintended consequences are avoided (for example, insulating homes is not just a 'green' issue – it is necessary to prevent condensation, mould growth and associated illnesses, and to make heating affordable. We would note, however, that for the specific issue of fire safety, the legislation is set up as a combination of building construction standards (Building Regulations) and occupation standards (RRO). CIC members in general feel that this is the correct choice, but that the interface between the two needs to be improved.

1.3 Updates and innovation

1.3.1 There is a sense that although the aims of the Regulations are still valid, the associated guidance in the Approved Documents is not in line with modern construction. A consolidation and update of legislation needs to take an holistic approach, and also needs to cater for an industry where innovation in materials and techniques is a continuous process. The Regulations need to accommodate innovation whilst not jeopardising safety and health. The legislation and associated guidance will therefore need to have an in-built regular review process. Returning to the realisation of a triennial review process is essential.

1.3.2 The Building Regulations Advisory Committee (BRAC) has a remit to look forward and anticipate the need for changes in Regulation. This is an important part of an ongoing review process, and BRAC should have a role in identifying and prioritising areas for review, and in anticipating need for change to adapt to modern methods of construction, off-site construction, and so on. The triennial review of BRAC published in January 2014 the important role of this committee in providing independent expert advice, and emphasised the exceptional value for money represented by the high quality advice which the committee delivered. https://www.gov.uk/government/publications/building-regulations-advisory-committee-triennial-review

1.3.3 On the issue of regulation generally, CIC feel strongly that critical issues of life safety, including building safety, should not be subject to constraints such as a political objective of reducing the regulatory burden on business in general. Building Regulations are made under the Building Act primarily for reasons of health and safety. It is inappropriate to delay or defer such legislation, or any changes that may arise as a result of this Review, due to any 'one in, two out' or similar deregulatory policy. Any legislation must undergo an impact assessment and be reasonable and

proportionate, and there is already provision within the Regulations for reasonable limits on e.g. access requirements in buildings being refurbished on economic grounds. CIC would warmly welcome an early and explicit statement by Ministers that Building Regulations are not to be subject to any 'one in, any out' deregulatory burden'.

1.4 Outdated references in regulation

1.4.1 The need for regular review of the Building Regulations and their Approved Documents is underlined by the references in the Approved Documents to standards that have been superseded. In some cases, test houses need to retain accreditation for testing to otherwise obsolete standards because the regulatory documents still refer to them. Regular reviews of the legislative documents should include updates to standards and other references, to avoid the use of superseded standards. Government should work closely with BSI as the National Standards Body to ensure that references to standards are maintained, and wherever possible that such references are drafted to accommodate the regular periodic reviews and updates that all standards must undergo as part of the quality assurance processes governing standards development.

1.4.2 The assumptions behind some of the numbers in the Approved Documents should also be reviewed. For example, the differentiation of rules for buildings of different height or different uses are based in many cases on data that are many decades old. It is reasonable to revisit these to see whether the quantities chosen are still valid with the current building stock. For example, height criteria and travel distances which were established in 1948 from Fire Service equipment in use at the time

1.5 Building Regulations and the RRO

1.5.1 As a specific example of the need for consolidation (described in section 1.2 above), The Fire and Rescue Service will expect that Building Control have enforced Regulation 38, although that regulation is not enforceable, because there is no mechanism to verify the information. This creates a discontinuity between the two at hand-over. Regulation 38 was introduced into the Building Regulations as a consequence of the changes to Fire Certification made in the Regulatory Reform (Fire Safety) Order 2005 (RRO). The intention was that information regarding the fire safety measures incorporated into a building including consequent maintenance requirements would be communicated to the Responsible Person as described in the RRO. This would facilitate them (or their agents) in their carrying out of the Fire Risk Assessment as required under the RRO.

Unfortunately Regulation 38 has been far from successful and the required information is rarely communicated to the Responsible Person in a manner that meets the intention of the authors. There is no requirement for the information to be presented to either the Fire Service or the Building Control Body for assessment. The requirement is merely for the person carrying out the work to confirm that the required information has been passed over. Fire information is of course contained in the Health and Safety File, and the Operations and Maintenance manuals (O&Ms) as required under the CDM Regulations and the fact that these are passed on to the client is taken to be satisfactory to state Regulation 38 has been complied with. The O&Ms are far too technical and unwieldy to meet the spirit of Regulation 38.

Regulation 40 also requires provision of information in a usable format, and references industry guidance on how to do this, which may be useful in reviewing Regulation 38.

We would recommend that the wording of Regulation 38 and/or the guidance given in Appendix G of the Approved Document to support Regulation 38 be reworked to clearly identify what is required under this regulation in terms of information and presentation.

1.5.2 There is also feedback that not everyone understands the RRO and what it requires them to do. For example, the application of the RRO to 'common parts' of the building rather than to 'residential' leads some building managers to believe that the RRO does not apply at all to residential buildings. This is an obvious area in need of clarification.

1.5.3 Often management companies do not understand the implications of how the RRO affects common parts of buildings, for example especially when residents change their front doors to a non-fire-rated door. There needs to be more clarity around what changes can be made to common parts.

1.5.4 The RRO has the good intention of making the person responsible for the building the one who is responsible for fire safety. However, this message has not got through to a lot of building owners and managers, who in the case of blocks of flats often think it is the other who is responsible with the net result that no-one is taking responsibility. The profile of this should be increased and the role more clearly identified, with the responsible person having to be declared on the fire risk assessment.

1.5.5 Regulations 38 and 30 require the handing over of fire strategy to the responsible person, but there are many reasons why it may not happen. Perhaps the onus should be on the responsible person to ensure that they have a copy of the strategy, and have understood it.

1.5.6 The procedures that are developed to deal with these issues need to recognise that buildings will be in use for many years and may have a number of changes of both owners and managers.

1.6 Fire & Rescue Service Guidance

1.6.1 There are local differences in the advice provided to building owners by the FRS in both design and buildings in use. Some of this is due to differences in interpretation, and some is due to differences in fire-fighting operational procedures. Identical buildings in different locations could therefore receive different advice. This is another area that needs to be pulled into the consolidation of legislation. Achieving consistency in advice, perhaps through better training and guidance documents, would seem sensible.

1.7 Prescriptive versus functional standards

1.7.1 The Building Regulations environment was changed fundamentally in 1985 with the introduction of the functional format that we see today. This format is held up across the world as an exemplar of good regulation because it allows for innovation

and design freedoms to be facilitated whilst still delivering buildings that comply with the overall intent of the Regulations. The functional approach has however come under criticism on occasions as being confusing and lacking in clarity and there are often calls for ‘a more prescriptive approach’. We do not believe that those calling for a more prescriptive approach are suggesting a return to the pre-1985 situation but rather for a better understanding of what is acceptable and what might not be in regard to certain ‘core’ issues.

An example might be the changes in 2007 that introduced a ‘requirement’ for sprinklers in buildings over 30m high. People see this as a baseline which should be either met completely or, if an alternative approach such as fire engineering is to be adopted, the equivalence of that alternative approach should be clearly presented. We would suggest that core benchmarks are clearly presented in the guidance to provide a clear ‘prescriptive’ baseline from which any alternative approach can be compared. This may well be a presentation issue rather than a substantive change in the guidance but could be the key to dealing with the call for more prescription.

1.7.2 In general, there is agreement from CIC members that there are benefits, such as innovation and flexibility, in basing regulations on performance criteria rather than prescriptive criteria. For many areas, it will still be appropriate to have scope for informed, risk-based and evidence-based design, supported by evidence-based compliance and enforcement. However, there is recognition that for some critical life safety issues for higher-risk buildings it may be necessary to move back towards some prescriptive requirements in order to remove ambiguity. We would caution, however, that this should not be done with only one issue (fire life safety) in mind, as there are many other features of buildings and their environments that have significant life safety implications. A move towards prescriptive requirements for fire safety that made other elements of the Building Regulations difficult to comply with would not be a beneficial solution.

1.7.3 There is consensus among CIC members that it is more important to be prescriptive about the competence of the people making risk-based decisions than it is to be prescriptive about the building solutions required to meet the Regulations.

1.7.4 Preservation of the building itself can provide additional socio-economic benefit, particularly for hospitals and other buildings where the loss of the building would have a huge impact on the local community. Should the Building Act be reviewed in the future, the aim of preservation of the building could be considered for inclusion in addition to life safety.

Roles & Responsibilities

Q2 Are the roles, responsibilities & accountabilities of different individuals (in relation to adhering to fire safety[1] requirements or assessing compliance) at each key stage of the building process[2] clear, effective and timely? In particular:

- Where are responsibilities clear, effective and timely and well understood by those who need to adhere to them/assess them?; and, if appropriate
- Where specifically do you think the regime is not effective?
- What changes would be necessary to address these and what are the benefits of doing so?

Q3 Does the current system place a clear over-arching responsibility on named parties for maintaining / ensuring fire safety requirements are met in a high-rise multi-occupancy building? Where could this be made clearer? What would be the benefits of doing so?

Note 1 References to 'fire safety' requirements in Q2 & 3 should be taken to cover the range of requirements set out across Building Regulations, the Fire Safety Order etc.

Note 2 In other words the planning, design, procurement and construction of new builds and the refurbishment of existing buildings and the ongoing management and maintenance of those buildings

Q2 and Q3 are dealt with together, as the issues for the main part address both.

2.1 Clarity of roles and responsibilities

2.1.1 There is evidently a lack of effective guidance on the roles and responsibilities of individuals at key stages of the building process. There are elements of legislation that attempt to define responsible individuals, but even these do not provide clear answers. The lack of clarity is demonstrated by the primary duty of the Building Act, which applies to 'the person carrying out the work'. This is fundamental to compliance with Building Regulations, but who is that? The client? The main contractor? The designer? It is unclear. How is responsibility passed to the RRO's Responsible Person?

2.1.2 There are various defined roles in building control bodies that all play a part in the 'building control process', but are subject to different governance arrangements, varying requirements for personal competence, for audit of their work, and different liabilities.

2.1.3 The extent and implications of Client and Designer Duties under Regulation 9 of the CDM Regulations 2015 should also be considered.

2.1.4 Building Control professionals and Fire Service professionals may give different advice on the same issue, due to the different focus required.

2.1.5 From building design to building-in-use, there are both overlaps and gaps in roles and responsibilities, and across the sector the feedback now is that this needs

to be addressed in order to create a culture change and a positive future for the construction industry. CIC is willing to assist in further work to identify the current gaps.

2.2 Cross-industry collaboration

2.2.1 Best practice includes more collaboration between professionals at key stages of the process. Examples of best practice raised include the façade engineer discussing system choices with building control, links between planning and fire safety professionals, and the inclusion of planning professionals early in the design stage. The Consultants/Client team needs to make sufficient time for collaboration and resolution of technical design. There is a wish across members for cross-industry collaboration to provide the clarity, consistency and holistic approach that is currently missing in terms of roles and responsibilities. Within professional groups, there is also recognition that an improved consistency and recognition of professional competence is necessary (see the next point for a specific example on fire safety practitioners).

2.3 Competency and fire safety

2.3.1 In the last two months, CIC and RICS have carried out complementary reviews of fire safety practitioners – the routes they are approved by, and the qualifications and training available to them. It is clear that the diversity of specialisms and the range of training would make it difficult for a building owner to know who they need to be dealing with when they need advice on compliance with regulations. A review of fire safety certification, standards and competence could be appropriate.

2.3.2 It is possible for Fire Risk Assessments required under the RRO to be prepared by persons who are not competent, including assessments of high-rise buildings. There needs to be a tightening up of the competency requirements.

2.3.3 The Responsible Person under the Fire Safety Order is usually not competent in the area of fire safety, and has no requirement to be. For the ongoing fire safety of the building, access to fire safety competency is needed.

2.3.4 We strongly advise a National Register of licensed fire safety professionals, based around cross-industry agreement of the competencies that are required, along with an analysis of roles and their required competencies. Competencies should be appropriate to the role. For example, fire engineers should be qualified engineers; fire engineering is a highly skilled profession that carries significant responsibility. Several of the professional institutions already have systems that can be pooled to form the basis of this approach. We envisage an easily identifiable scheme, equivalent to those for gas or asbestos operatives, Approved Inspectors or Access Consultants.

2.4 Responsibility and Liability

2.4.1 Responsibility and liability often go hand-in-hand, and it is therefore important that existing guidance on roles and responsibilities are clearly understood, communicated and implemented. For example, the professional team must advise the client that the client needs to define the team's roles and responsibilities from the outset.

2.4.2 Requirements in the legislation need to be clear, so that those with responsibility for compliance have clarity on what they are working towards.

2.4.3 Those with responsibility for compliance with a requirement need to have clearly defined competencies, and evidence of meeting them. They should also be required to work to ethical standards, such as a professional Code of Conduct, including the requirement not to go beyond their competence in their work. This covers not just Chartered members of professional institutions, but also other members who will be involved with any part of the process. As an example, standards for an engineering institution would cover not just Chartered Engineers, but also Incorporated Engineers and Engineering Technicians.

2.4.4 In many cases the Building Regulations are not adequately enforced, leaving the situation of non-qualified people designing and building with little or no control. The solution must be the introduction of some form of licensing for all professionals, and the employment of additional building control officers, who should also hold professional qualifications.

2.4.5 Cost and budgets are of course a huge factor in the management of buildings and often the findings or actions required as a result of a Fire Risk Assessment are not completed, therefore leaving residents vulnerable.

2.4.6 Building Control has to cover the full spectrum of the Building Regulations. Since the Sustainable and Secure Buildings Act became law, it has been suggested that the Approved Persons provisions be used to enable specialists to sign off aspects of the works within their specialist competence. Although raised here, note that this suggestion does not have unanimous support among CIC members, as others argue that it could further complicate the roles and dilute responsibilities, and that the measure would need careful consideration for implementation.

2.4.7 Where there is negligence, there needs to be clarity on who is responsible for the non-compliance, and who is liable for any costs or losses. For example, the ruling in *Murphy vs Brentwood District Council* shows that neither the client nor the main contractor can abrogate responsibility for errors to the building control process.

2.4.8 The person carrying out the work (see 2.1 for the importance of identifying who this person is) could be required to provide the as-built drawings and information, and to sign them off as an accurate representation of the building – this does not imply any statement of compliance, simply a declaration that the information represents what was built. This is a low-cost measure that would enhance consumer protection.

2.4.9 The feedback from this exercise supports many of the conclusions of the final '*Report of the Independent Inquiry into the Construction of Edinburgh Schools'*, published in February 2017. The conclusions of this report include the requirement for clarity on roles and responsibilities throughout the process, including in contracts. The report also recommends improved ongoing inspection and increased independent scrutiny of the building process.
http://www.edinburgh.gov.uk/download/meetings/id/53239/report_of_the_independent_inquiry_into_the_construction_of_edinburgh_schools

Competencies of key players

Q4 What evidence is there that those[3] with responsibility for:

- Demonstrating compliance (with Building Regulations, housing & fire safety requirements) at various stages in the life cycle of a building;
- Assessing compliance with those requirements are appropriately trained and accredited and are adequately resourced to perform their role effectively (including whether there are enough qualified professionals in each key area)? If gaps exist, how can they be addressed and what would be the benefits of doing so?

Note 3 For example, architects, those with responsibility for installing products, those undertaking Building Control sign-off or fire protection and enforcement work.

4.1 Recognition and qualifications of professionals

4.1.1 Greater recognition of qualifications and competency is essential. The mechanism is in place through the Engineering Council, Professional Institutions and *bona fide* trade associations that monitor competency and promote training and development.

4.1.2 It is important that the value of professionals providing approvals or sign-off is recognised, and that the bodies providing these services are appropriately resourced. Many professions have a part to play in providing safe and compliant buildings. Some currently have a role at particular stages, and others are involved throughout the life cycle of a building.

4.1.3 Building Control professionals are expected to deal with all elements of the Building Regulations. Their important role needs to be recognised, along with the resources to carry out the job to the desired level, and they may also need the ability to refer specialist recognition of the role and value of each type of professional, supported by a framework of peer-reviewed competencies, and clarity on responsibilities through a building's life will improve compliance and safety throughout a building's life.

4.2 Competency of building managers and housing management teams to assess ongoing compliance

4.2.1 There are two elements to the ongoing management of buildings in use. The first relates to managing the asset which is largely the responsibility of the building manager and / or facilities managers in the private sector. In the social housing sector, the management and ongoing maintenance of a building is the responsibility of the social housing landlord, via housing and maintenance officers. The second element relates to how to manage the tenants and residents who live in and use the building.

4.2.2 Clear guidance for the ongoing management of buildings is lacking, in terms of initial and ongoing compliance. Often, the people responsible for managing and maintaining a building do not understand their responsibilities, and therefore are not competent to make assessments on the buildings they manage. There are reports that some have a portfolio so large that they are unable to physically visit the

buildings they manage, or if they do visit it is very infrequent, so fire risks can go undetected for weeks or months. The first stage required here is to clarify their responsibilities, and then to signpost them to the appropriate specialists to get expert advice.

4.2.3 In relation to the management and maintenance of the building, requirements could be made more specific, including for example:

- Clarity and targets on the frequency of on-site inspections and the scope of those inspections.
- Guidance on the issues to consider on any post-completion works (for example, the impact on fire-stopping integrity of putting in services or communications fittings).
- The necessity of access to flats for inspection, to check for fire risk issues such as removal of fire doors, presence of smoke detectors, fire evacuation plan, etc. Experience has shown that often landlords do not access individual flats in high rise blocks to inspect unless there are repairs or adjustments required to the door to the common parts.
- Competency of building managers / facility managers and housing officers / caretakers with regards to fire safety.
- More efficient prioritisation and management of actions as a result of fire risk assessment findings.
- Recording any alterations or improvements and their impacts on the integrity of the building and compartmentation

4.2.4 In relation to communicating with tenants and residents on fire safety, there should be additional requirements, including for example:

- Ensuring both staff and residents have appropriate levels of fire safety awareness including prevention and what to do in the event of a fire occurring.
- A clear and transparent mechanism for prioritising, recording and dealing with complaints and concerns.
- Clear and consistent advice on evacuation procedures (on advice of fire service).
- Consideration of a methodology to track the needs of those who live in a building and to customise, for example, evacuation procedures or communication preferences.

4.3 Timing of approvals

4.3.1 There are issues over timing of approvals and of the lack of a holistic approach to approvals. For example, in the fire-stopping example above, the fire-stopping might already be signed off before later works damage the fire-stopping system. Likewise, a fire safety action might prejudice compliance to a Building Regulation requirement that has already been signed-off. Certification, assessment and approval need a more holistic approach, and more commonality between the bodies providing them.

4.3.2 Even after approval, this issue remains a challenge. Years after approval, a tradesman could install a new service, knocking through a fire wall in the process without knowing; even if they are aware of what they have done, then it is likely that the cheapest approach could be used to make good. To address this:

- Consideration could be given to identifying fire compartments clearly through colour or similar permanent marking.
- Provision of a signed-off set of accurate drawings is essential, as it would provide the details of the fire compartments.
- In higher-risk buildings there could then be a requirement on building managers to take responsibility for managing works, and for taking the required steps to ensure that any work which could compromise fire compartmentation is properly supervised, certified and approved.

4.4 New ways of working together

4.4.1 In addition to the competencies of individual players, there are a number of areas where involved parties could work more synergistically:

- Consider more use of Collaborative Contracts, and move away from Design & Build Contracts
- Introduce Combined Project Insurance instigated by the Client / Employer
- Commission the Client's primary professional team (e.g. designers, engineers, project managers, cost consultants) from commencement to post-completion to ensure continuity of involvement, independent professional advice and appropriate liability
- More front-end investment in careful procurement of the professional team with the time allocated to plan the project carefully, effectively and efficiently
- Strategise over time more integration between Town Planning / Building Regulations / Other legislation, based around a 6-stage approvals structure, subject to scale (and risk) of each project:
    - Outline concept / in-principle stage
    - Full design stage
    - Detailed technical / commencement stage
    - Site monitoring stage
    - Completion / approvals stage
    - Management in use

Enforcement & Sanctions

Q5 Is the current checking and inspection regime adequately backed up through enforcement and sanctions? In particular

- Where does the regime already adequately drive compliance or ensure remedial action is always taken in a timely manner where needed?
- Where does the system fail to do so? Are changes required to address this and what would be the benefits of doing so?

5.1 Buildings register

5.1.1 Consideration should be given to a register of buildings, available online to interested parties, be they Building Control, enforcement or tenants. This already exists in some form for energy issues, and could be expanded to cover other building descriptors. For fire safety, this might include construction details, and other issues such as have been collected for the recent exercise – cladding type, means of escape, staircases, lifts, and so on. The register needs to be a mandatory feature of the construction process, and should be populated with relevant certificates and information, both at the time of original construction and on an ongoing basis. It may include Fire Risk Assessments, which are often unobtainable by tenants, and information on refurbishment and additional works. The concept for this kind of register has been established for Energy Performance Certificates, and the principle also accords with the Data Warehouse recommendation from the *Each Home Counts* report. https://www.gov.uk/government/publications/each-home-counts-review-of-consumer-advice-protection-standards-and-enforcement-for-energy-efficiency-and-renewable-energy

5.1.2 As mentioned in section 1.5, we would recommend that the wording of Regulations 38 and 40 and/or the guidance given in Appendix G of the Approved Document to support Regulations 38 and 40 be reworked to clearly identify what is required under this regulation in terms of the information that must be provided prior to issue of a building certificate. Making this part clearer and more enforceable would provide incentive to the contractor. Note that this was proposed previously in response to the consultation on the 2013 amendments to the Building Regulations, and draft wording was offered.

5.1.3 This also addresses the problem of identifying a building's construction post-completion, without the need for deconstruction. We recommend that the existing statutory requirement for the provision of operational information (Regulation 40) be extended to include as-built information and documentation. Investigations need a building log that can be referred to, and there needs to be a body that can enforce this requirement, and apply sanctions if the requirement is not met. There is already a recognised template for this building information.

5.1.4 Provision of Maintenance Manuals and as-built information could be made contractual requirements and supplied at Practical Completion. The quality and presentation of those documents is fundamental to effective use. They could follow a nationally prescribed format. The work involved in producing them needs to be recognised and adequately remunerated. In parallel, Building Managers need to be trained and competent to use the Maintenance Manuals and perhaps should

comment on their completeness and be prepared contractually to refuse inadequate documentation.

5.1.5 The Health and Safety File (as defined in CDM Regulations 2015) should also be made a part of Practical Completion as defined under such forms of Contract as JCT, NEC, etc. Further, this Health and Safety File should include all information related to the fire strategy, including passive and active protective of the building and users' risk to life. The information contained in a correct and appropriately set up Health and Safety File is a repository, invaluable in providing data needed to record and track changes made to a building during its lifetime and essential for the use of building owners, their maintenance teams and subsequent designers and contractors. This will allow all parties throughout the life of the building to be aware of the consequences of any changes made in terms of fire safety performance. The Health and Safety File is referred to at the following points in the CDM Regulations 2015: Client duties Reg 4(7), 4(2)(b)(ii), guidance para (45)(46b) and (e); Principal Designer duties Reg 11(7), guidance para (108); Designer duties Reg 9(c), guidance para (8)(a)(ii).

5.1.6 A study carried out by Sheffield Hallam University on behalf of the DCLG entitled 'The scope of an MOT test for buildings' collates the information that would be needed to provide an ongoing checklist for building information, beyond completion and into use. A link to the report can be found below, and provides recommendations on how this might work.
http://webarchive.nationalarchives.gov.uk/20120919204034/http://www.communities.gov.uk/documents/corporate/pdf/1832157.pdf

5.2 Ongoing Building Safety Programme

5.2.1 CIC believes that it is essential that there is a continuing Building Safety Programme within Government, appropriately resourced, to keep an ongoing watch on progress and development within the construction industry. The programme should link with the management of Building Regulations.

5.2.2 The Building Safety Programme should also work as a focal point for the management of feedback on issues of building safety (see Section 6.2).

5.3 2015 CDM Regulations

5.3.1 As the CDM Regulations 2015 provide an over-arching model of how inter-connected design decisions should be managed and coordinated by the Principal Designer', the review might usefully include consideration of how these responsibilities are understood and discharged by all relevant parties, and whether the wider framework could usefully mirror this structure.

5.4 Ongoing fire risk assessments

5.4.1 CIC see the need for a regular (perhaps 3-yearly) fire risk assessment regime that continues throughout the life-cycle of a higher-risk building, in addition to assessments when works are carried out. This should include access to flats, not just common parts. At the moment, most of the compliance checking is done up to the point when a building is handed over. There is little that is done (and enforced) after this point, despite it representing the vast majority of a building's life. Building

Regulations cannot be retrospectively enforced, so we have a large building stock in the UK built to out-of-date regulations.

5.4.2 In some cases, changes which do not comply with the Building Regulations are made to the building once the building has been signed-off, perhaps to make properties more marketable. Regular inspections would pick up this kind of alteration, and would also be a check that recommended actions have been implemented.

5.5 Responsibilities

5.5.1 As mentioned in responses to Q2/Q4, responsibilities are not well-defined throughout the life-cycle of a building. The responsibility for providing required information, and the responsibility for enforcing the requirements, need to be more clearly defined. The enforcement body, whether local or national, needs to be appropriately resourced, and needs to have the ability to apply sanctions where non-compliance is identified.

Tenants' & Residents' Voice in the current system

Q6 Is there an effective means for tenants and other residents to raise concerns about the fire safety of their buildings and to receive feedback? Where might changes be required to ensure tenants'/residents' voices on fire safety can be heard in the future?

6.1 Private sector versus social housing

6.1.1 Any requirements in this area would need to be practicable within the private sector as well as within social housing; there should be no difference between private sector and social housing. Differences in levels of ownership (freehold, leasehold, remote freehold) raise a number of issues, and within the private sector, it is currently less easy to raise concerns and get information. For example, the Housing Ombudsman Service realistically only relates to housing associations and local authorities; private sector landlords may register if they choose to do so, but most do not. However, tenants can raise any concerns with Fire & Rescue Services who have the power to inspect and advise the building owners.

6.2 Whistleblowing / mechanism for lessons learned

6.2.1 It is important that there is a central agency that people can contact to raise concerns. Although it is possible to contact the Housing Ombudsman, this is long-winded and requires that other lines have been followed first. For some people, there is also a complex network of relationships to be navigated in raising a concern. A single national agency (see also section 8.5) would allow people to move outside the network of relationships to contact someone independent, and have issues reviewed independently. This could cover issues raised at any point in a building's lifecycle.

6.2.2 CIC members have seen high-rise buildings placed at significant risk due to key fire safety equipment being removed by residents. As an example: in one building, fire doors at ground level were removed to make access to the central lift and stairwell core easier. At the point when the CIC member visited, the building manager had done nothing to have this reinstated or to educate the residents as to why it was required.

6.2.3 It is essential that any organisation set up to address this role has enforcement and sanction powers, so that it can be effective when concerns are identified.

6.2.4 This structure also allows for a mechanism on feedback, information sharing, and the ability to benefit from lessons learned. The function can be forward-looking, and enable proactive decisions as well as reactive.

6.2.5 This mechanism should be overseen by an ongoing Building Safety Programme at the DCLG (see Section 5.2).

6.2.6 There is good precedent for this sort of mechanism in the area of structural safety, where CROSS (Confidential Reporting of Structural Safety) and SCOSS (Standing Committee on Structural Safety) are collaborative mechanisms providing both a means of confidential reporting of possible problems, and a means of following

and predicting future trends and developments, in order to improve building safety and advise on likely implications for Regulations.
http://www.structural-safety.org/

6.3 National Tenant Voice

6.3.1 Previously there was an organisation called the 'National Tenant Voice', active only for a few months in 2010. This was set up with the four main roles of advocacy, research, communication and support for tenants. It was intended to give social housing tenants a say in housing policy issues. There are some calls to revive this kind of organisation. While this may have a place in terms of national issues, it would be less effective in resolving local or individual concerns. It would also need to be available to leaseholders as well as tenants.

6.4 Private Member's Bill

6.4.1 The Private Member's Bill described in section 1.2 would also impact positively on residents' voices if it were adopted.

Quality Assurance and Testing of Materials

Q7 Does the way building components are safety checked, certified and marketed in relation to building regulations requirements need to change? In particular:

- Where is the system sufficiently robust and reliable in maximising fire safety and, if appropriate
- Where specifically do you think there are weaknesses / gaps? What changes would be necessary to address these, and what would be the benefits of doing so?

7.1 Product specification

7.1.1 Specifications will refer to multiple standards. Someone interpreting the specifications may check generic type of material or key performance features, but may not understand the extent or importance of detailed conformity to each standard. It is not reasonable to make the assumption that the product will be supplied by a company who have both the understanding of what each standard means, and the integrity to deliver the appropriate product.

7.1.2 To address this point, the industry needs a new mechanism for approaching quality, the introduction of new products and systems, and new methods of existing building maintenance. This must be done with reference to the Construction Products Regulation, governing CE marking and the placement of products on the market, but in the knowledge that the UK Government is permitted to set additional rules relating to safety.

7.1.3 More prominence should also be given to Field of Application Reports for fire safety (and indeed for other building safety aspects). These reports make more specific the applications for which their product can be used, and the boundary conditions that apply to any performance claims or classes.

7.2 Misleading product selling

7.2.1 There are examples of manufacturers selling products with straplines or marketing claims that might be deemed misleading. As examples:

- A product with literature saying that it *'can be compliant with…'* without explaining that this is only in particular situations, or as part of particular constructions.
- A product implying certification or test compliance for all products in a range when only part of the range is covered.
- Inferior product substitutions without highlighting the changes.

7.2.2 In other situations, manufacturers may directly be misrepresenting their products. For example:

- Explicitly claiming performance, certification or compliance that is not correct.
- Producing inferior products (changing materials used or intentional substitution of inferior products).

This has an effect through the supply chain: a designer may specify a product believing it to be compliant.

7.2.3 There could be a role for Trading Standards here, to better enforce that products should not be sold unless they are specifically appropriate for what they are being used for. It is recognised, however, that Trading Standards may not be able to demonstrate who is at fault, and may be liable for compensation if they attempt to take a product off the market. The situation is complicated by being subject to the Construction Products Regulation, where compliance with the relevant European product requirements means that the product can be sold here. That issue will not be resolved at a national level until after the UK leaves the European Union.

7.2.4 It is also recognised that in many cases, the manufacturer may not know at the point of sale what the intended application of the product is.

7.3 Product Certification

7.3.1 Certification of products should specify when there are particular applications in which compliance or approval applies (or does not apply). We believe that information critical to designers and specifiers in selecting products should be prominent in a product certificate, and explicitly state what the product is intended for and in what circumstances.

7.4 Publication of Test Results

7.4.1 When experts are trying to establish whether a cladding system for a building is equivalent to a system that has passed a large-scale fire test, detailed product information on the tested system components is vital. For example, identification or detailed description of the insulation as well as the ACM panel would be needed to judge the system.

7.5 Clarity of testing requirements and desk-top assessments

7.5.1 This links back to Q1. Fire safety tests and terminology can be confusing. Testing requirements need to be absolutely clear in Approved Document B. There should be no ambiguity over which tests, and which results, are required for any particular application.

7.5.2 The need for desktop assessments is clear, particularly in the situation where requirements are made more stringent (e.g. confining to the use of non-combustible materials or systems tested with large-scale fire tests). The lack of capacity for large-scale fire tests also makes the desktop assessments necessary. However, desktop assessments or judgements on extended application need to be of high quality, and carried out by competent professionals.

7.5.3 The other area of clarity needed is on whether ‘just passing’ a large-scale fire test according to the BR135 categorisation is likely to be sufficient for a real-life situation, which can never replicate the particular conditions of the BS8414 testing. This is a difficult area to navigate and interpret, and there is some doubt that the test result is sufficient to make an informed decision (see also section 7.4).

7.5.4 There is scope for additional examples of construction details for Part B that would be deemed to satisfy the Building Regulations, such as has been done in the Accredited Construction Details for Part L. This would add greatly to the knowledge base.

7.6 Enhanced toxicity of materials

7.6.1 We believe that there is a need to carry out research into the enhanced toxicity of some of the construction materials used, and also on the chemical reactions between materials used in a system, in fire conditions.

Differentiation within the current Regulatory System

Q8 What would be the advantages / disadvantages of creating a greater degree of differentiation in the regulatory system between high-rise multi-occupancy residential buildings and other less complex types of residential / non-residential buildings[4]?
Where specifically do you think further differentiation might assist in ensuring adequate fire safety and what would be the benefits of such changes?

Note 4 For example in terms of higher competency requirements, pro-activity/frequency of safety sign-off.

8.1 High-rise versus higher-risk

8.1.1 In providing differentiation in the regulatory system, defining a higher-risk building is more pertinent than defining a high-rise building. There are other elements – including accessibility issues – that would make a building higher-risk. A higher-risk building may require additional provisions to mitigate the higher risk. The question of how high a building is would not be either a holistic measure or a logical one. A differentiation in regulation should not be based on a single metric, but we recognise that a risk assessment on a building could quickly become complicated, particularly if the elements of the assessment are unclear. This raises the issue of who would be the correct person to make that risk assessment.

8.1.2 Clarity can only be achieved through a risk assessment process that links to clear definitions, and is developed with a clear understanding of the design consequences. There must be a risk analysis framework established to identify higher-risk buildings, including those that are high-rise. A system would be required in which there is no ambiguity. A simple points-based checklist for each building, with critical 'red-flag' factors, could be a solution. Research is urgently needed on this.

8.1.3 It should be noted that there are more fatal fires in low-rise ('low-risk') buildings than in high-rise, so changes to the regulatory framework should form a balanced solution.

8.2 Other issues that must be considered when assessing risk

8.2.1 As mentioned in section 8.1, defining a higher-risk building depends on many issues, including the following.

- Occupants and occupancy patterns, including occupants with access issues
- Multi-tenure and types of tenure (including unauthorised types)
- Fire safety strategy
- Evacuation policy – stay put policy or simultaneous evacuation policy
- Management of the building and occupants; staffing
- Form of construction
- Robustness of building
- Area of cladding compared to total area
- Number of staircases (internal and external)
- Fire engineering measures
- Fire detection systems – smoke, heat and automatic alerts to Fire & Rescue Services

- Sprinklers
- Alarm systems
- Fire-fighting provisions at the building
- Fire-fighting access to the building
- Fire-fighting service procedures

8.3 Prescriptive versus functional requirements

8.3.1 One approach to differentiation in the regulatory system may be that for buildings deemed to be in the higher-risk category, more of the requirements are prescriptive rather than performance-based, or that they require the input of a registered fire engineer and such other chartered professionals as are appropriate to the works being undertaken. Those requirements deemed to be life-critical could be more prescriptive, and this would reduce ambiguities in interpretations of compliance and non-compliance. (See also section 1.7).

8.4 Differentiation in enforcement and lifetime inspection

8.4.1 The need for improved oversight of a building is raised elsewhere in this response (see sections 5.1 and 5.4), but is reiterated here. The level of building oversight could sensibly be increased, in frequency and detail, for buildings deemed to be in the higher-risk category.

8.5 National regime for higher-risk buildings

8.5.1 CIC believes that there is the need for a national enforcement regime, perhaps aligned to higher-risk buildings. This provides independence and consistency, and reduces the problems associated with having a weak enforcement system.

International Comparisons and Other Sectors

Q9 What examples exist from outside England of good practice in regulatory systems that aim to ensure fire safety in similar buildings? What aspects should be specifically considered and why?

9.1 International standing of English Building Regulations and Building Control

9.1.1 The Building Regulations and Building Control in England is held in high regard by professionals in much of the rest of the world. England might therefore be considered an exemplar of good practice. This is not to suggest complacency, but to acknowledge that in many senses, the current system provides for high standards.

9.2 Australia

9.2.1 Following the Lacrosse fire, Australia has been considering the combustibility of materials used on the external faces of buildings. A review of requirements was initiated, and revised regulations are at draft for public comment. https://www.abcb.gov.au/Connect/Articles/Comprehensive-package-of-measuresfire-safety

9.2.2 A review into enforcement and compliance to the National Construction Code is also underway. The terms of reference are at: https://industry.gov.au/industry/IndustrySectors/buildingandconstruction/Documents/Terms-of-Reference.pdf

9.2.3 An interim report into aluminium composite panels (non-compliant products) has been produced in September 2017.

9.2.4 The industry is somewhat different in Australia, with a stronger licensing culture. Nonetheless, there are lessons to be learned from the process and conclusions of the activities in Australia.

9.3 Middle East and Hong Kong

9.3.1 There have been similar fires in other countries, including those with ACM cladding, which have not resulted in fatalities.

9.3.2 In Dubai, there have been fires with ACM cladding but the buildings (usually of recent construction) have been safely evacuated and the fire engineered approach has contained the fires without loss of life. The building code for fire safety here is primarily adopted from the NFPA standards, and may not be as stringent as England's regulations.

9.3.3 It is important to note that the external construction of the building must be considered in conjunction with other fire engineering, structural and management issues. Even with equivalent construction elements, differences in compartmentation, evacuation strategy, fire lifts, firefighting access and procedures, control of refuse, car parking, and so on, will affect the overall fire life safety of the building. However, it is notable that where this type of fire occurs, the fire often burns until burnt out (that is, the fires could not be put out).

9.4 Austria

9.4.1 In Austria, social housing is often provided by the private sector through 10 year social rented leases; thereafter, flats revert to the private sector.

9.5 Scotland and Jersey

9.5.1 With devolved regulation, legislation and practice in the area of building safety is diverging across the UK. In Scotland and Jersey, certification of structural building design is administered through a registration scheme for structural engineers. This is a model which could be applied for fire (and other building safety elements) in England. See also section 2.4.9, which refers to a report on Edinburgh Schools.

9.6 Wales

9.6.1 2016 updates to the Building Regulations and Approved Documents in Wales included a statutory requirement for fire suppression systems in all new building and change of use applications.

Q10 What examples of good practice from regulatory regimes in other industries / sectors that are dependent on high quality safety environments are there that we could learn from? What key lessons are there for enhancing fire safety?

10.1 Other industries

10.1.1 There are several industries that are dependent on high quality safety environments, and that offer parallels to the construction industry. These include the oil, chemical, nuclear, aviation, maritime, bridges and underground rail industries.

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